

Issue No. : Issue 4
Issue Date : July 2021
Project No. : 1825



AIR QUALITY, NOISE AND WATER QUALITY BASELINE MONITORING REPORT

FOR

**PORT SHELTER PHASE 3, PO
TOI O SEWERAGE
TREATMENT PLANT EM&A**

Prepared by

Allied Environmental Consultants Limited

COMMERCIAL-IN-CONFIDENCE

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Certified by:

A handwritten signature in black ink, appearing to read 'Timmy Wong', written over a horizontal line.

Timmy WONG
Environmental Team Leader

Verified by:

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F.C. TSANG
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Drainage Services Department
Special Duty Division
42/F, Revenue Tower, 5 Gloucester Road,
Wan Chai, Hong Kong.

Attention: Ms. Wing W.Y. Law

26 July 2021

Dear Wing,

**Port Shelter Sewerage, Stage 3 - Sewerage Works at Po Toi O
Baseline Monitoring Report**

Referring to the captioned report (Issue No. 4) we received from the ET, please be informed that we have no further comments on the report. We hereby verify the report as per Condition 3.3 of the Environmental Permit (No. EP-516/2016).

Yours sincerely,

F.C. Tsang
Independent Environmental Checker

Document Verification



Project Title Port Shelter Phase 3, Po Toi O Sewerage Treatment Plant EM&A **Project No.** 1825

Document Title Air Quality, Noise and Water Quality Baseline Monitoring Report

Issue No.	Issue Date	Description	Prepared by	Checked by	Approved by
1	February 2021	1 st Submission	Timmy Wong	Joanne Ng	Grace Kwok
2	March 2021	2 nd Submission	Timmy Wong	Joanne Ng	Grace Kwok
3	April 2021	3 rd Submission	Timmy Wong	Joanne Ng	Grace Kwok
4	July 2021	4 th Submission	Timmy Wong	Joanne Ng	Grace Kwok

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1. Executive Summary

- 1.1.1 The proposed sewerage works in Po Toi O (hereafter as “the Project”) is an environmental enhancement project that aims to improve environmental hygiene of the Po Toi O area. The Environmental Impact Assessment (EIA) Report for the Project (Register No: AEIAR-206/2017) was approved on 27 January 2017. The Environmental Permit (EP) (Permit No.: EP-516/2016) was issued on 27 January 2017 and is the current permit for the Project.
- 1.1.2 Allied Environmental Consultants (AEC) has been appointed by Drainage Services Department (DSD) as the Environmental Team (ET) to undertake the EM&A programme during construction phase of the Project in accordance to the approved EM&A Manual for the Project.
- 1.1.3 This baseline monitoring report is submitted to fulfil Condition 3.3 of the EP (Permit No.: EP-516/2016) for the Project. The purpose of this report is to determine the baseline conditions of air quality, noise and water quality of the Project, with reference to the “*Port Shelter Sewerage, Stage 3- Sewerage Works at Po Toi O*” EM&A Manual (AEIAR-206/2017) (hereafter as “EM&A Manual”).

1.2 Air Quality Monitoring

- 1.2.1 24-hour and 1-hour Total Suspended Particles (TSP) monitoring were conducted for 14 consecutive days from 23 December 2020 to 5 January 2021 at 4 monitoring locations. The action and limit levels for 24-hour and 1-hour TSP during impact monitoring are established based on the measured baseline TSP levels for assessing the impact and compliance during construction of the Project. The action and limit levels of 24-hour and 1-hour TSP levels at air quality monitoring location AMS1N, AMS2N1, AMS3N and AMS4N are summarised in **Table 1-1**:

Table 1-1 Action and Limit Levels of Air Quality Monitoring

Monitoring Station	Action Level (µg/m3)		Limit Level µg/m3 (µg/m3)	
	1-hour TSP	24-Hour TSP	1-hour TSP	24-Hour TSP
AMS1N*	319	153	500	260
AMS2N1*	279	179	500	260
AMS3N*	303	158	500	260
AMS4N*	278	144	500	260

Notes:

*- Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the air quality monitoring stations in the Approved EM&A Manual for the Project, the monitoring location AMS1 – AMS4 were replaced by alternative monitoring location AMS1N – AMS4N, which was approved by ER and IEC.

1.3 Noise Monitoring

- 1.3.1 Noise monitoring were conducted for 14 consecutive days from 23 December 2020 to 5 January 2021 at 4 monitoring locations. The action level for construction noise during impact monitoring are established based on the measured baseline noise levels for assessing the impact and compliance during construction phase of the Project. The action and limit levels of noise levels at noise monitoring location NMS1N, NMS2N1, NMS3N and NMS4N are summarised in **Table 1-2**:

Table 1-2 Action and Limit Levels of Construction Noise Monitoring

Time Period	Monitoring Station	Action Level	Limit Level
Leq (30min), dB(A) 0700-1900 hrs. on normal weekday)	NMS1N*	When one documented complaint is received	75 dB(A)
	NMS2N1*		
	NMS3N*		
	NMS4N*		

Notes:

*- Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the air quality monitoring stations in the Approved EM&A Manual for the Project, the monitoring location AMS1 – AMS4 were replaced by alternative monitoring location AMS1N – AMS4N, which was approved by ER and IEC.
- Baseline Leq (30min) was measured at day-time (0700-1900 hrs) on all days. Log-average is presented.

1.4 Water Quality Monitoring

- 1.4.1 Water quality monitoring was conducted between 17 December 2020 to 12 January 2021 at 11 monitoring locations (i.e. WMS1N, WMS2N, WMS3, WMS4, WMS5, WMS6, I1, I2, C1, C2 and C3). The action and limit levels for water quality during impact monitoring are established based on the measured baseline levels of Dissolved Oxygen (DO), turbidity and Suspended Solids (SS) for assessing the impact and compliance during marine works during construction of the Project. The action and limit levels of 24-hour and 1-hour TSP levels at water quality monitoring locations WMS1N, WMS2N, WMS3, WMS4, WMS5, WMS6, I1, and I2 are summarised in **Table 1-3**:

Table 1-3 Action and Limit Levels of Water Quality Monitoring

Parameter	Performance criteria	Monitoring Location							
		WMS1 N	WMS2 N	WMS3	WMS4	WMS5	WMS6	I1	I2
DO (mg/L)	Action Level (Surface & Middle)	7.57	7.58	7.62	7.73	7.62	7.56	7.52	7.59
	Limit Level (Surface & Middle)	7.55	7.51	7.49	7.53	7.60	7.42	7.40	7.04
	Action Level (Bottom)	7.50	7.49	-	-	-	7.41	7.50	7.53
	Limit Level (Bottom)	7.45	7.36	-	-	-	7.37	7.44	7.51
Turbidity (NTU)	Action Level*	1.11	1.60	1.30	1.47	1.50	1.4	1.55	1.15
	Limit Level	1.90	2.50	1.50	1.75	1.70	1.7	2.03	1.80
SS (mg/L)	Action Level*	10	9	10	9	8.65	9	11.45	10
	Limit Level	12	12	12	10	12	11	15	12

Notes:

*-The Action levels for turbidity (NTU) and SS (mg/l) across all WMSs are of close proximity to the Limit Levels of the WMSs. For conservative approach, a factor of -0.2 for turbidity (NTU) and SS (mg/l) is included in the adjusted Action Level.

- In case where exceedance of these environmental criteria occurs, actions should be carried out in accordance with the "Event Action Plan" in the Approved EM&A Manual.

2. Introduction

2.1 Project Background

- 2.1.1 Allied Environmental Consultants (AEC) has been appointed by Drainage Services Department (DSD) as the Environmental Team (ET) to undertake the EM&A programme during construction phase of the proposed sewerage works in Po Toi O (hereafter as “the Project”), of an environmental enhancement project that aims to improve environmental hygiene of the Po Toi O area in accordance to the approved EM&A Manual for the Project.
- 2.1.2 Po Toi O is located in the southern part of Sai Kung District, next to Clear Water Bay, with the small settlement of Po Toi O village around the bay. There is currently no public sewerage system for the village. Sewage and wastewater generated by local residents and local restaurants are treated by septic tanks/ soakaway system (STS).
- 2.1.3 Sewage works at Po Toi O comprise sewage collection, treatment and disposal facilities at Po Toi O under Port Shelter Sewerage, Stage 3 – Sewerage Works at Po Toi O.
- 2.1.4 The Project in Po Toi O mainly comprises of the following items:
- i. Provision of village sewerage to the unsewered areas of Po Toi O. The works involve construction of about 800m of gravity sewers and 400m of rising mains;
 - ii. Construction of a local sewage treatment plant (STP) with Average Dry Weather Flow (ADWF) of about 139m³/day; and
 - iii. Construction of a submarine outfall of about 385m in length.
- 2.1.5 The Project consists of the following works, which are classified as Designated Projects under Part I, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO):
- i. Item Q.1 – A sewage treatment plant and portion of sewer alignments in a conservation area;
 - ii. Item C.12 (a) (v) and (vii) – A dredging operation which is less than 500m from the nearest boundary of an existing fish culture zone and coastal protection area; and
 - iii. Item F.6 – A submarine sewage outfall.

- 2.1.6 The Environmental Impact Assessment (EIA) Report for the Project (Register No: AEIAR-206/2017) was approved on 27 January 2017. The Environmental Permit (EP) (Permit No.: EP-516/2016) was issued on 27 January 2017 and is the current permit for the Project.

2.2 Purpose of Baseline Monitoring Report

- 2.2.1 This baseline monitoring report is submitted to fulfil Condition 3.3 of the EP (Permit No.: EP-516/2016) for the Project. The purpose of this report is to determine the baseline conditions of air quality, noise and water quality of the Project, with reference to the *“Port Shelter Sewerage, Stage 3- Sewerage Works at Po Toi O”*
- 2.2.2 EM&A Manual (AEIAR-206/2017) (hereafter as “EM&A Manual”). These levels are intended as the basis for assessing environmental impact and compliance during construction phase of the Project.
- 2.2.3 This report presents the baseline monitoring requirements, methodologies and results of baseline measurements in accordance with the requirements, where applicable, in the EM&A Manual.
- 2.2.4 The air quality and noise monitoring works were conducted from 23 December 2020 to 5 January 2021, and the water quality monitoring work was conducted from 17 December 2020 to 12 January 2021.

3. Air Quality Monitoring

3.1 Monitoring Requirement

3.1.1 The Air Quality Monitoring was conducted to determine the ambient 1-hour and 24-hour average Total Suspended Particulates (TSP) levels at the monitoring locations prior to the commencement of the construction works. The monitoring was carried out for a continuous period of at least two weeks with 1 set of 24-hour and 3 sets of 1-hour ambient measurements taken daily at all of the designated monitoring locations.

3.2 Monitoring Equipment

3.2.1 The 24-hour TSP air quality monitoring was performed using High Volume Air Samplers (HVS) at each of the designated monitoring stations. The HVS are calibrated by a HVS calibrator. Meanwhile 1-hour TSP air quality monitoring was performed using portable TSP monitors. The details of the equipment used in air quality monitoring are summarised in **Table 3-1**.

Table 3-1 Equipment Used for Air Quality Monitoring

Air Quality Monitoring	Brand and Model of Equipment	Serial Number
24-hour TSP	Tisch TE-5170 High Volume Sampler	4350
		4374
		2089
		3796
	Tisch TE-5025A High Volume Sampler Calibrator	2154
1-hour TSP	Sibata LD-5R Portable TSP Monitors	882146
		761106
		620407
		620408

3.3 Baseline Monitoring Parameters, Frequency and Duration

3.3.1 The parameters, duration and frequency for air quality baseline monitoring is given in **Table 3-2**.

Table 3-2 Baseline Monitoring Parameters for Air Quality Monitoring

Identification No.	Location	Parameters	Frequency	Duration
AMS1N*	Footpath above House No. 28 Po Toi O Chuen Road	1-hr TSP 24-hr TSP	<u>1-hour TSP:</u> 1 hour x 3 per day	23 December 2020 – 5 January 2021
AMS2N1*	Open space Approx. 15 m from Hung Shing Temple		<u>24-hour</u> <u>TSP:</u> 24 hours per day	
AMS3N*	Vacant land near Temporary Structure (House) Rocky Shore			
AMS4N*	Resting shelter near Seacrest Villas			

Notes:

*- Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the air quality monitoring stations in the Approved EM&A Manual for the Project, the monitoring location AMS1 – AMS4 were replaced by alternative monitoring location AMS1N – AMS4N, which was approved by ER and IEC.

3.4 Monitoring Locations

3.4.1 4 alternative representative Air Quality Monitoring Stations (AMSs) have been proposed and described in the “Propose Alternative Monitoring Locations for Air and Noise Quality Baseline and Impact Monitoring of Port Shelter Phase 3, Po Toi O Sewerage Treatment Plant EM&A”. in accordance to the requirements for placement of equipment, set out in section 3.5.3 of the EM&A manual of the Project. The locations of the alternative representative AMSs were agreed with IEC and the ER of the Project, as access to originally proposed air quality monitoring stations AMS1, AMS2, AMS3 and AMS4 in the EM&A manual of the Project was not possible due to objection from local residents.

3.4.2 The locations of the alternative representative AMSs are given in **Table 3-3** and **Figure 3-1**.

Table 3-3 Representative Air Quality Monitoring Locations

Identification No.	Location	Type of Monitoring	Duration
AMS1N*	Footpath above House No. 28 Po Toi O Chuen Road	TSP	1 hr & 24 hrs
AMS2N1*	Open space Approx. 15 m from Hung Shing Temple	TSP	1 hr & 24 hrs
AMS3N*	Vacant land near Temporary Structure (House) Rocky Shore	TSP	1 hr & 24 hrs
AMS4N*	Resting shelter near Seacrest Villas	TSP	1 hr & 24 hrs

Notes:

*- Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the air quality monitoring stations in the Approved EM&A Manual for the Project, the monitoring location AMS1 – AMS4 were replaced by alternative monitoring location AMS1N – AMS4N, which was approved by ER and IEC.

3.5 Monitoring Methodology for 24-hour TSP Monitoring

3.5.1 The HVS was installed in the vicinity of the air quality monitoring stations. The following criteria were considered in the installation of the HVS:

- i. A horizontal platform with appropriate support to secure the sampler against gusty wind was provided.
- ii. The distance between the HVS and any obstacles, such as buildings, was at least twice the height that the obstacle protrudes above the HVS.
- iii. A minimum of 2 meters separation from walls, parapets and penthouse for rooftop sampler.
- iv. A minimum of 2 meters separation from any supporting structure, measured horizontally.
- v. No furnace or incinerator flues nearby.
- vi. Airflow around the sampler was unrestricted.
- vii. Permission was obtained to set up the samplers and access to the monitoring stations.
- viii. A secured supply of electricity was obtained to operate the samplers.
- ix. The sampler was located more than 20 meters from any dripline.
- x. Any wire fence and gate, required to protect the sampler, did not obstruct the monitoring process.
- xi. Flow control accuracy was kept within $\pm 2.5\%$ deviation over 24-hour sampling period.

3.5.2 The following procedures were followed for the preparation of filter papers of the HVS:

- i. Glass fibre filters, G810 were labelled and sufficient filters that were clean and without pinholes were selected.
- ii. All filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ± 3 °C; the relative humidity (RH) was < 50% and not variable by more than ± 5 %. A convenient working RH was 40%.
- iii. All filter papers were prepared and analysed by a HOKLAS accredited laboratory and has comprehensive quality assurance and quality control programmes.

3.5.3 The following procedures were followed throughout air quality monitoring works:

- i. The power supply was checked to ensure the HVS works properly.
- ii. The filter holder and the area surrounding the filter were cleaned.
- iii. The filter holder was removed by loosening the four bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully.
- iv. The filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter.
- v. The swing bolts were fastened to hold the filter holder down to the frame. The pressure applied was sufficient to avoid air leakage at the edges.
- vi. Then the shelter lid was closed and was secured with the aluminum strip.
- vii. The HVS was warmed-up for about 5 minutes to establish run-temperature conditions.
- viii. A new flow rate record sheet was set into the flow recorder.
- ix. On site temperature and atmospheric pressure readings were taken and the flow rate of the HVS was checked and adjusted at around 1.1 m³ /min, and complied with the range specified in the updated EM&A Manual (i.e. 0.6-1.7 m³ /min).
- x. The programmable digital timer was set for a sampling period of 24 hrs, and the starting time, weather condition and the filter number were recorded.
- xi. The initial elapsed time was recorded.
- xii. At the end of sampling, on site temperature and atmospheric pressure readings were taken and the final flow rate of the HVS was checked and recorded.
- xiii. The final elapsed time was recorded.
- xiv. The sampled filter was removed carefully and folded in half-length so that only surfaces with collected particulate matter were in contact.

- xv. It was then placed in a clean plastic envelope and sealed.
- xvi. All monitoring information was recorded on a standard data sheet.

3.5.4 The following procedures were followed for the maintenance and calibration of HVS:

- i. The HVS and its accessories were maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- ii. 5-point calibration of the HVS was conducted using TE-5025A Calibration Kit prior to the commencement of baseline monitoring. Bi-monthly 5-point calibration of the HVS will be carried out during impact monitoring. The details for HVS calibration against the TE-5025A Calibration Kit is given in **Appendix 3-1**.

3.6 Monitoring Methodology for 1-Hour TSP Monitoring

3.6.1 The measuring procedures of the direct reading dust meters were in accordance with the Manufacturer's Instruction Manual as follows:

- i. Turn the power on.
- ii. Close the air collecting opening cover.
- iii. Push the "TIME SETTING" switch to [BG].
- iv. Push "START/STOP" switch to perform background measurement for 6 seconds.
- v. Turn the knob at SENSI ADJ position to insert the light scattering plate.
- vi. Leave the equipment for 1 minute upon "SPAN CHECK" is indicated in the display.
- vii. Push "START/STOP" switch to perform automatic sensitivity adjustment. This measurement takes 1 minute.
- viii. Pull out the knob and return it to MEASURE position.
- ix. Push the "TIME SETTING" switch the time set in the display to 3 hours.
- x. Lower down the air collection opening cover.
- xi. Push "START/STOP" switch to start measurement.

3.6.2 The following procedures were followed for the maintenance and calibration of direct reading dust meters:

- i. The 1-hour TSP meter was calibrated at 1-year intervals against TSP high volume air sampler.

- ii. Calibration certificates of the Laser Dust Monitors are provided in **Appendix 3-2**. 1-hour validation checking of the TSP meter against HVS is carried out yearly at the air quality monitoring locations.

3.7 Weather Condition

- 3.7.1 Meteorological information (such as the humidity, rainfall, air pressure and temperature etc.) were collected from Hong Kong Observatory (HKO)'s weather stations.
- 3.7.2 According to the approved EM&A Manual, wind data monitoring equipment shall be provided and setup for logging wind speed and wind direction near the dust monitoring locations. The equipment installation location shall be proposed by the ET and agreed with the IEC. For installation and operation of wind data monitoring equipment, the following criteria shall be observed:
 - a) The wind sensors should be installed 10 m above ground so that they are clear of obstructions or turbulence caused by buildings.
 - b) The wind data should be captured by a data logger. The data shall be downloaded for analysis at least once a month.
 - c) The wind data monitoring equipment should be re-calibrated at least once every six months.
 - d) Wind direction should be divided into 16 sectors of 22.5 degrees each.
- 3.7.3 It is noted from ET liaison with the resident's representative on 22 December 2020, the Po Toi O resident's representative has rejected the lease and access of space and power supply for ET to install wind data monitoring equipment. In view of this, ET proposed an alternative method for wind data collection in accordance to section 3.4.7 of EM&A Manual.
- 3.7.4 It is proposed that wind data information is to be collected from the Hong Kong Observatory's Waglan Island Weather Station as the representative wind data. According to HKO information, the Waglan Island weather station are compliance with the requirement in the EM&A manual stipulated in the EM&A manual.
- 3.7.5 On-site wind speed data collection by anemometer will also be conduct by ET for reference.
- 3.7.6 The weather conditions during the monitoring were fine or cloudy. The prevailing weather condition are provided in **Appendix 3-3**.

3.8 Results and Observations

- 3.8.1 During baseline monitoring, the influencing factors on air quality observed were mainly human activities. For the monitoring station AMS1N and AMS4N, the monitoring station of AMS1N was located next to Po Toi O Chuen Road and the monitoring location AMS4N was located next to haul road for Fairway Vista. Moreover, the monitoring station AMS2N1 and AMS3N are located in the Po Toi O Chuen area which might be affected by Po Toi O residents' activities, such as the operation of restock of sea-food resultant and general refuse collection etc.
- 3.8.2 The monitoring data of 1-hr TSP and 24-hr TSP are summarized in **Table 3-4** and **Table 3-5** respectively. The analysis of filters use in air quality monitoring is given in **Appendix 3-4**. Detailed monitoring data are presented in **Appendix 3-5**.

Table 3-4 Summary of 1-hour TSP Monitoring Results

Parameter	Monitoring Station	Average (µg/m ³)	Range (µg/ m ³)
1-hr TSP in µg/m ³	AMS1N	106	58-166
	AMS2N1	44	20-84
	AMS3N	82	31-180
	AMS4N	43	19-78

Table 3-5 Summary of 24-hour TSP Monitoring Results

Parameter	Monitoring Station	Average (µg/m ³)	Range (µg/ m ³)
24-hr TSP in µg/m ³	AMS1N	35	20-65
	AMS2N1	76	50-158
	AMS3N	43	24-75
	AMS4N	21	4-53

3.9 Action and Limit Levels for 24-hour and 1-hour TSP Monitoring

- 3.9.1 According to Section 3.9 of the EM&A Manual of the Project, the Action and Limit Levels for 1-hour TSP and 24-hour TSP monitoring shall be determined by the following calculations presented in **Table 3-6**.

Table 3-6 Calculations for the Action and Limit Levels for 1-hour TSP and 24-hour TSP Levels

Parameter	Action Level	Limit Level
1-hr TSP (average)	<u>For Baseline Level $\leq 384 \mu\text{g}/\text{m}^3$</u> Action Level = (Baseline Level x 1.3 + Limit Level)/2 <u>For Baseline Level $> 384 \mu\text{g}/\text{m}^3$</u> Action Level = Limit Level	500 $\mu\text{g}/\text{m}^3$
24-hr TSP (average)	<u>For Baseline Level $\leq 200 \mu\text{g}/\text{m}^3$</u> Action Level = (Baseline Level x 1.3 + Limit Level)/2 <u>For Baseline Level $> 200 \mu\text{g}/\text{m}^3$</u> Action Level = Limit Level	260 $\mu\text{g}/\text{m}^3$

3.9.2 Following the abovementioned guidelines, the Action and Limit Levels for air quality impact monitoring have been set, as presented in **Table 3-7** and **Table 3-8**.

Table 3-7 Action and Limit Levels for 1-hr TSP

Parameter	Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
1-hr TSP ($\mu\text{g}/\text{m}^3$)	AMS1N	319	500 $\mu\text{g}/\text{m}^3$
	AMS2N1	279	
	AMS3N	303	
	AMS4N	278	

Table 3-8 Action and Limit Levels for 24-hr TSP

Parameter	Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
24-hr TSP ($\mu\text{g}/\text{m}^3$)	AMS1N	153	260 $\mu\text{g}/\text{m}^3$
	AMS2N1	179	
	AMS3N	158	
	AMS4N	144	

3.9.3 The Event and Action Plan for Air Quality Impact Monitoring are given in **Appendix 3-6**.

4. Noise Monitoring

4.1 Monitoring Requirement

- 4.1.1 The noise monitoring was conducted to determine the average ambient noise levels at the monitoring locations prior to the commencement of the construction works. 14 consecutive days daytime Leq (30min) baseline noise monitoring was carried out between 23 December 2020 to 5 January 2021 for the identified nearest noise sensitive receivers (NSRs).

4.2 Monitoring Equipment

- 4.2.1 The noise monitoring was performed using sound level meters at each of the designated monitoring stations. An acoustical calibrator is also use to calibrate the sound level meters. The equipment use in noise monitoring is summarised in **Table 4-1**.

Table 4-1 Equipment List for Noise Monitoring

Equipment	Manufacturer & Model No.	Serial Number	Precision Grade
Sound Level Meter	Casella – CEL-63X	0873573	EN 61672-1:2003 Class 1
		1488270	EN 61672-1:2003 Class 1
		1488295	EN 61672-1:2003 Class 1
		1488304	EN 61672-1:2003 Class 1
Acoustical Calibrator	Casella – CEL-120/1	2383707	EN 60942:2003 Class 1
Anemometer	Benetech – GM816	WS-09	-

Note:

Monitoring equipment was calibrated annually according to “Appendix D2 –General Technical Requirements of Environmental Monitoring” (<https://www.epd.gov.hk/eia/hb/materials/images/AppendixD2.pdf>)

4.3 Monitoring Parameters, Frequency and Duration

4.3.1 The parameters, duration and frequency for noise baseline monitoring is given in **Table 4-2**.

Table 4-2 Baseline Monitoring Parameters for Noise Monitoring

Identification No.	Location	Parameters	Type of Measurement	Duration
NMS1N*	Footpath above House No. 28 Po Toi O Chuen Road	Leq(30min)	Free-Field	23 December 2020 – 5 January 2021
NMS2N1*	Open space Approx. 15 m from Hung Shing Temple			
NMS3N*	Vacant land near Temporary Structure (House) Rocky Shore			
NMS4N*	Resting shelter near Seacrest Villas			

Notes:

* Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the noise monitoring stations in the Approved EM&A Manual for the Project, the monitoring location NMS1 – NMS4 were replaced by alternative monitoring location NMS1N – NMS4N, which was approved by ER and IEC.

4.4 Monitoring Locations

4.4.1 4 alternative representative Noise Monitoring Stations (NMSs) have been proposed and described in the “Propose Alternative Monitoring Locations for Air and Noise Quality Baseline and Impact Monitoring of Port Shelter Phase 3, Po Toi O Sewerage Treatment Plant EM&A” in accordance to the requirements for placement of equipment, set out in section 3.5.3 of the EM&A manual of the Project. The locations of the alternative representative NMSs were agreed with IEC and the ER of the Project, as access to originally proposed noise monitoring stations NMS1, NMS2, NMS3 and NMS4 in the EM&A manual of the Project was not possible due to objection from local residents.

4.4.2 The locations of the alternative representative NMSs are given in **Table 4-3** and **Figure 3-1**.

Table 4-3 Representative Noise Monitoring Locations

Identification No.	Location	Type of Monitoring
NMS1N*	Footpath above House No. 28 Po Toi O Chuen Road	Leq(30min)
NMS2N1*	Open space Approx. 15 m from Hung Shing Temple	
NMS3N*	Vacant land near Temporary Structure (House) Rocky Shore	
NMS4N*	Resting shelter near Seacrest Villas	

Notes:

* Due to a number of limitations (i.e. EM&A approved monitoring stations not accessible) identified at the noise monitoring stations in the Approved EM&A Manual for the Project, the monitoring location NMS1 – NMS4 were replaced by alternative monitoring location NMS1N – NMS4N, which was approved by ER and IEC.

4.5 Monitoring Methodology for Noise Monitoring

4.5.1 The measuring procedures of the sound level meter were in accordance with the Manufacturer's Instruction Manual as follows:

- i. Free-field measurement was made for the noise monitoring stations.
- ii. The sound level meter was set on a tripod at a height of 1.2 m above the ground.
- iii. The battery condition was checked to ensure the correct functioning of the meter.
- iv. Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - a. frequency weighting: A
 - b. Time weighting: Fast
 - c. Time measurement: Leq(30-minutes) during non-restricted hours i.e. 07:00 – 1900 on normal weekdays; Leq(5-minutes) during restricted hours i.e. 19:00 – 23:00 and 23:00 – 07:00 of normal weekdays, whole day of Sundays and Public Holidays
- v. Prior to and after each noise measurement, the meter was calibrated using the acoustic calibrator at a specified sound pressure level at a specified frequency. If the difference in the calibration level before and after measurement was more than 1 dB(A), the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.

- vi. During the monitoring period, the Leq, L10 and L90 were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- vii. Noise measurement was paused during periods of high intrusive noise (e.g. dog barking, helicopter noise) if possible. Observations were recorded when intrusive noise was unavoidable.
- viii. Noise monitoring was cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind with gusts exceeding 10m/s.

4.5.2 The following procedures were followed for the maintenance and calibration of sound level meters:

- i. The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- ii. The meter and calibrator were sent to the supplier or HOKLAS laboratory to check and calibrate at yearly intervals.
- iii. Calibration certificates of the sound level meters and acoustic calibrators are provided in **Appendix 4-1**.

4.6 Results and Observations

4.6.1 The results from noise monitoring is summarised in **Table 4-4**. A summary of noise baseline monitoring data is shown in **Appendix 4-2**.

Table 4-4 Summary of Noise Baseline Monitoring Results

Monitoring Locations	Average of Wind Speed (m/s) #	Average corrected Leq(30mins) (dB(A)) ^	^Range of corrected Leq(30mins) (dB(A)) ^
NMS1N	1.6 m/s	62.7 dB(A)	52.8 – 72.0 dB(A)
NMS2N1	1.9 m/s	61.8 dB(A)	46.1 – 69.9 dB(A)
NMS3N	2.1 m/s	64.6 dB(A)	59.8 – 68.1 dB(A)
NMS4N	1.2 m/s	58.1 dB(A)	38.1 – 68.7 dB(A)

Notes:

^ Free field correction of +3 dB(A) was made for monitoring location.

Measure by on-site portable wind speed meter

4.6.2 No rainy or windy (over 5m/s average wind speed) weather was observed. On-site wind speed was measured by portable wind speed meter in each measurement locations before starting noise monitoring.

4.6.3 All noise monitoring data collected during baseline monitoring are used for data analysis. The details of monitoring time periods and weather conditions are summarised in **Appendix 3-3**.

4.6.4 It is observed during baseline noise monitoring that no project-related activities were carried out, the noise monitoring results obtained were considered representative of the ambient noise conditions prior to the commencement of construction works for the Project.

4.7 Action and Limit Level for Noise Level

4.7.1 The criteria for action and limit levels for construction noise as set out in Section 2 of “*General Technical Requirements of Environmental Monitoring*” by EPD, and the action and limit levels of noise level during construction phase of the Project are given in **Table 4-5** and **Table 4-6**.

Table 4-5 Criteria for Action and Limit Levels for Construction Noise

Time Period	Action level	Limit
0700-1900 hours on normal weekdays	When one documented complaint is received	75dB(A)*

Note:

*- Reduces to 70 dB(A) for schools and 65 dB(A) during the school examination periods. If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the NCA have to be followed.

Table 4-6 Action and Limit Levels for Construction Noise

Monitoring Location	Time Period	Action Level	Limit Level
NMS1N	0700-1900 hrs on normal weekdays	When one documented complaint is received	75dB(A)
NMS2N1			75dB(A)
NMS3N			75dB(A)
NMS4N			75dB(A)

4.7.2 The Event and Action Plan for Noise Impact Monitoring are given in **Appendix 4-3**.

5. Water Quality monitoring

5.1 Monitoring Requirement

5.1.1 The Water Quality Monitoring was conducted to determine the average ambient water quality levels at the monitoring locations prior to the commencement of the marine construction works. 14 consecutive days daytime water quality baseline monitoring was carried out from 17 December 2020 to 12 January 2021 for the identified nearest water quality monitoring stations (WMSs).

5.2 Monitoring Equipment

5.2.1 The water quality baseline monitoring (i.e. pH, salinity, temperature, turbidity and dissolved oxygen (DO)) was measured with Multi-Parameter Water Quality Meter at each of the designated monitoring stations. Water depth detector was used to measure the water depth of each monitoring locations. A global positioning device was used to locate the WMSs. **Table 5-1** summarized the equipment used in water quality monitoring.

Table 5-1 Equipment Used for Water Quality Monitoring

Water Quality Monitoring Parameters	Brand and Model of Equipment
Multi-Parameter Water Quality Meter	YSI EXO-3
Water Sampler	Aquatic Research Transparent PC Vertical Water Sampler 3L / 5L
Water Depth Detector	Garmin ECHO 100
Global Positioning Device	Garmin eTrex H

5.3 Monitoring Parameters, Frequency and Duration

5.3.1 The parameters, duration and frequency for water quality monitoring is given in **Table 5-2**.

Table 5-2 Baseline Monitoring Parameters for Water Quality Monitoring

Water Quality Monitoring Stations	Parameters	Frequency	Duration
*WMS-1N	- Temperature (°C) - pH (pH unit) - Turbidity (NTU) - Water depth (m) - Salinity (mg/L) - Dissolved oxygen (DO) (mg/L and % of saturation) - Suspended Solids (SS) (mg/L)	3 days per week at mid-flood and mid-ebb tides (within $\pm$ 1.75 hour of the predicted time)	17 December 2020 - 12 January 2021
*WMS-2N			
WMS3			
WMS4			
WMS5			
WMS6			
I1			
I2			
C1			
C2			
C3			

Notes:

*- WMS-1N, WMS-2N are new proposed alternative monitoring location. Since EIA monitoring location WMS1, WMS2 are situated in fish barges within the Fish Culture Zone (FCZ), and accesses to WMS1 and WMS2 were subsequently denied by the tenants of the fish barges.

5.4 Monitoring Locations

- 5.4.1 2 nos. of alternative WMSs have been proposed and described in the “Water Quality Baseline and Impact Monitoring Methodology of Port Shelter Phase 3, Po Toi O Sewerage Treatment Plant EM&A”. The locations of the alternative representative WMSs were agreed with IEC and the ER of the Project, as access to originally proposed water quality monitoring stations WMS1 and WMS2 in the EM&A manual of the Project were denied by the tenants of the fish barges .
- 5.4.2 The locations of the alternative representative WMSs, control stations and impact stations are given in **Table 5-3** and **Figure 5-1**.

Table 5-3 Water Quality Baseline monitoring station

Station	Monitoring Period	Description	Easting	Northing
*WMS-1N	Mid-Ebb, Mid-Flood	Po Toi O Fish Culture Zone	848416	845209
*WMS-2N	Mid-Ebb, Mid-Flood	Po Toi O Fish Culture Zone	848505	815375
WMS3	Mid-Ebb, Mid-Flood	Rocky Shore with Corals	848644	815391
WMS4	Mid-Ebb, Mid-Flood	Rocky Shore with Corals	848774	815602
WMS5	Mid-Ebb, Mid-Flood	Rocky Shore with Corals	848578	815591
WMS6	Mid-Ebb, Mid-Flood	Major Amphioxus Habitat	848639	815523
I1	Mid-Flood	Impact Monitoring Station	848643	815692
I2	Mid-Ebb	Impact Monitoring Station	848722	815910
C1	Mid-Flood	Control Station	848904	816052
C2	Mid-Ebb	Control Station	848529	815373
C3	Mid-Ebb	Control Station	848243	815710

Notes:

*- WMS-1N, WMS-2N are new proposed alternative monitoring location. Since EIA monitoring location WMS1, WMS2 are situated in fish barges within the Fish Culture Zone (FCZ), and accesses to WMS1 and WMS2 were subsequently denied by the tenants of the fish barges.

5.5 Water Quality Monitoring Methodology

- 5.5.1 The measurements shall be taken at all designated monitoring stations including control stations, 3 days per week, at mid-flood and mid-ebb tides (within ± 1.75 hour of the predicted time), for a period of 4 weeks prior to the commencement of the construction works. The interval between two sets of monitoring shall not be less than 36 hours.
- 5.5.2 For ease of comparison and analysis, all samples should be taken at each station at Approximately the same time.
- 5.5.3 Duplicate samples for suspended solids (SS) and in-situ water quality data (temperature, pH, turbidity, water depth, salinity, dissolved oxygen and percentage of saturation) shall be collected to ensure sufficient data for robust analysis. In case the difference in the duplicate in-situ measurement results is larger than 25%, the third set of in-situ measurement shall be carried out for result confirmation purpose.

- 5.5.4 Water samples shall be extracted at 1m below surface, 1m above seabed and the mid-depth level at where the water depth is at least 6m. However, if the water depth is less than 3m, water samples shall only be collected at the mid-depth level. For stations with depth less than 6m, the mid-depth sample can be omitted.
- 5.5.5 No construction activities shall be on-going in the vicinity of the stations during the baseline monitoring.
- 5.5.6 All in-situ monitoring instrument was checked, calibrated and certified by an environmental laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes was checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring location. For the onsite calibration of field equipment, the BS 1427:1993, "Guide to Field and on- site test methods for the analysis of waters" were observed. The calibration certificates of in-situ monitoring equipment are given in **Appendix 5-1**.

5.6 Tidal Condition

- 5.6.1 Tidal information collected from Hong Kong Observatory (HKO)'s Tai Miu Wan Tidal Station, the closest tidal station to the Project, was utilised to determine the schedule for water quality monitoring during mid-ebb and mid-flood period. The prevailing tidal condition are provided in **Appendix 5-2**. The water quality baseline monitoring schedule between 17 December 2020 and 12 January 2021 is also given in **Appendix 5-3**.

5.7 Result of Water Quality Monitoring

- 5.7.1 The water quality monitoring at 11 designated monitoring stations was performed in 4 weeks between 17 December 2020 and 12 January 2021 for monitoring stations WMS1N, WMS2N, WMS3, WMS4, WMS5, WMS6, I1, I2, C1, C2 and C3. During the baseline monitoring period, no construction activities under the project or other external influencing factors of significant concern were observed.

5.7.2 The monitoring results including DO, turbidity and SS at each designated monitoring stations is summarized in **Table 5-4**. Detailed monitoring results including in-situ measurements and laboratory analysis data are shown in **Appendix 5-4**

Table 5-4 Summary of Baseline Water Quality Monitoring Results.

Locations		Parameters			
		DO (mg/L) (Surface & Middle layers)	DO (mg/L) (Bottom layer)	Turbidity (NTU) (Depth-averaged)	SS (mg/L) (Depth-averaged)
WMS1N	Avg.	8.27	8.28	0.79	7.00
	Min.	7.54	7.44	0.20	4.00
	Max.	9.78	9.69	2.00	12.00
WMS2N	Avg.	8.34	8.29	0.85	6.43
	Min.	7.5	7.35	0.20	3.00
	Max.	9.78	9.93	2.60	12.00
WMS3	Avg.	8.43	Sampling Depth less than 3m, Sampling conduct in Middle layers only	0.68	6.81
	Min.	7.48		0.30	4.00
	Max.	10.81		1.50	12.00
WMS4	Avg.	8.46	Sampling Depth less than 3m, Sampling conduct in Middle layers only	0.69	6.56
	Min.	7.52		0.20	3.00
	Max.	10.51		1.80	10.00
WMS5	Avg.	8.48	Sampling Depth less than 3m, Sampling conduct in Middle layers only	0.71	6.06
	Min.	7.6		0.20	3.00
	Max.	10.92		1.70	12.00
WMS6	Avg.	8.47	8.36	0.82	6.19
	Min.	7.4	7.36	0.20	3.00
	Max.	11.19	10.45	1.70	11.00
I1	Avg.	8.34	8.24	0.77	7.44
	Min.	7.39	7.43	0.20	3.00
	Max.	9.90	9.36	2.10	15.00
I2	Avg.	8.41	8.16	0.72	7.06
	Min.	6.57	7.5	0.20	3.00
	Max.	10.72	9.91	1.80	12.00
C1	Avg.	8.32	8.19	0.69	7.51
	Min.	7.47	7.46	0.20	3.00
	Max.	9.59	9.25	1.80	15.00

Locations		Parameters			
		DO (mg/L) (Surface & Middle layers)	DO (mg/L) (Bottom layer)	Turbidity (NTU) (Depth-averaged)	SS (mg/L) (Depth-averaged)
C2	Avg.	8.41	8.31	0.77	7.46
	Min.	7.53	7.34	0.20	3.00
	Max.	9.83	9.85	1.60	13.00
C3	Avg.	8.39	8.13	1.52	7.81
	Min.	7.53	7.49	0.30	3.00
	Max.	10.98	9.75	11.40	20.00

5.8 Action/Limit Levels for Water Quality

The Action and Limit Levels for water quality during impact monitoring are illustrated in **Table 5-5**.

Table 5-5 Action and Limit Levels for Water Quality Monitoring

Parameter	Performance criteria	Monitoring Location							
		WMS1 N	WMS2 N	WMS3	WMS4	WMS5	WMS6	I1	I2
DO (mg/L)	Action Level (Surface & Middle)	7.57	7.58	7.62	7.73	7.62	7.56	7.52	7.59
	Limit Level (Surface & Middle)	7.55	7.51	7.49	7.53	7.60	7.42	7.40	7.04
	Action Level (Bottom)	7.50	7.49	-	-	-	7.41	7.50	7.53
	Limit Level (Bottom)	7.45	7.36	-	-	-	7.37	7.44	7.51
Turbidity (NTU)	Action Level*	1.11	1.60	1.30	1.47	1.50	1.4	1.55	1.15
	Limit Level	1.90	2.50	1.50	1.75	1.70	1.7	2.03	1.80
SS (mg/L)	Action Level*	10	9	10	9	8.65	9	11.45	10
	Limit Level	12	12	12	10	12	11	15	12

Notes:

**-The Action levels for turbidity (NTU) and SS (mg/l) across all WMSs are of close proximity to the Limit Levels of the WMSs. For conservative approach, a factor of -0.2 for turbidity (NTU) and SS (mg/l) is included in the adjusted Action Level.*

- In case where exceedance of these environmental criteria occurs, actions should be carried out in accordance with the "Event Action Plan" in the Approved EM&A Manual.

5.8.1 The Event and Action Plan for Noise Impact Monitoring are given in **Appendix 5-5**.

6. Revisions for Inclusion in the EM&A Manual

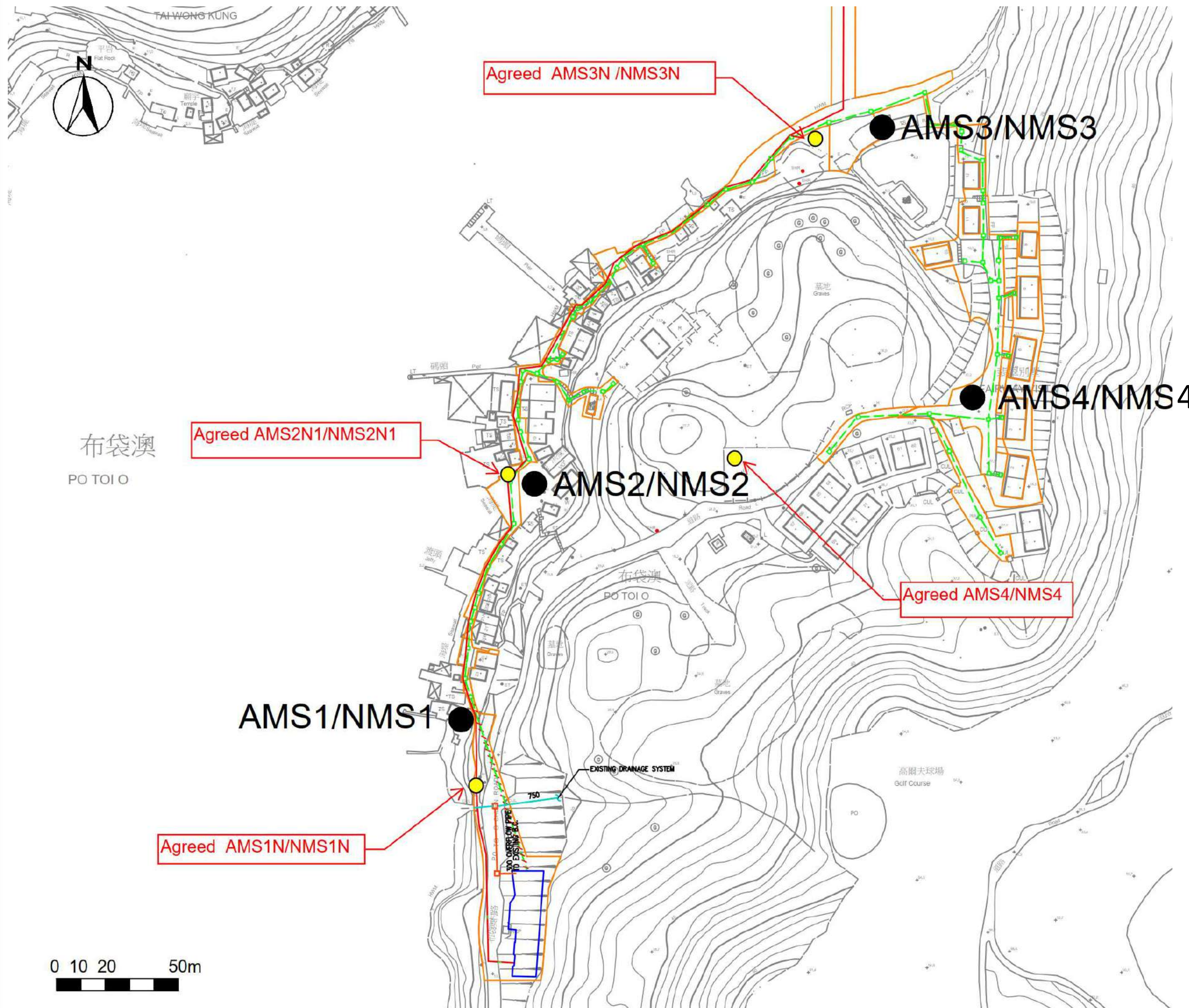
6.1.1 No revision to the approved EM&A Manual of the Project is required.

7. Conclusions

7.1.1 The air quality and noise monitoring were conducted from 23 December 2020 to 5 January 2021 and the water quality monitoring was conducted from 17 December 2020 to 12 January 2021. The baseline monitoring results were used to determine the appropriate Action and Limit Levels with the Limit Levels set against statutory or otherwise agreed limit.

7.1.2 The monitoring was carried out in accordance with the EM&A Manual, in respect of the methodology, equipment, location and monitoring parameters.

7.1.3 The Action and Limit Levels were derived based on the baseline monitoring results, impact monitoring shall be conduct in the construction phase and the Event and Action Plan was triggered based on the established Action and Limit Levels.



NOTES :

- Proposed Work Boundary
- Proposed Sewer and Manhole
- Proposed Rising Main
- / / / / / Proposed Sewer by Trenchless Method
- Proposed Sewage Treatment Plant
- Air/Noise Monitoring Stations Proposed in EM&A Manual
- Agreed Air/Noise Monitoring Stations

AMS1N/NMS1N

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ACOUSTICIANS & ENVIRONMENTAL ENGINEERS

Project No. : 1825

File Name :

Project :

Air Quality, Noise and Water Quality
Baseline Monitoring Report for Port
Shelter Phase 3- Po Toi O Sewerage
Treatment Plant

Drawing Title :

Location of Air Quality and Noise
Monitoring Station

Drawing No. :

Figure 3-1

Revision :

1

Scale :

NTS

Date :

April 2021

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Proposed Diffuser

C3

C1

I2

I1

WMS5

WMS6

WMS4

WMS-2N

WMS3

WMS2

C2

WMS-1N

WMS1

Station	Monitoring Period	Description	Easting	Northing
WMS1	Mid-Ebb, Mid-Flood	Po Toi O Fish Culture Zone	848387	815201
WMS2		Po Toi O Fish Culture Zone	848479	815378
WMS3		Rocky Shore with Corals	848644	815391
WMS4		Rocky Shore with Corals	848774	815602
WMS5		Rocky Shore with Corals	848578	815591
WMS6		Major Amphioxus Habitat	848639	815523
I1	Mid-Flood	Impact Monitoring Station	848643	815692
I2	Mid-Ebb	Impact Monitoring Station	848722	815810
C1	Mid-Flood	Control Station	848904	816052
C2	Mid-Ebb	Control Station	848529	815373
C3	Mid-Ebb	Control Station	848243	815710
WMS-1N	Mid-Ebb,	Po Toi O Fish Culture Zone	848416	815209
WMS-2N	Mid-Flood		848505	815375

NOTES :

- Proposed Work Boundary
- Proposed Sewer and Manhole
- Proposed Rising Main
- Proposed Sewer by Trenchless Method
- Proposed Sewage Treatment Plant
- Po Toi O Fish Culture Zone
- Water Monitoring Point

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Project No. : 1825

File Name :

Project :

Air Quality, Noise and Water Quality
Baseline Monitoring Report for Port
Shelter Phase 3- Po Toi O Sewerage
Treatment Plant

Drawing Title :

Location of Water Quality
Monitoring Station s

Drawing No. :

Figure 5-1

Revision :

0

Scale :

NTS

Date :

April 2021

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Appendix 3-1

Calibration Worksheet the High-Volume Sampler

**FUGRO TECHNICAL SERVICES LIMITED**

Room 723 - 726, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong.

Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com.hk

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : AMS-1N				Date of Calibration: 23-Dec-20			
Location ID: Footpath above House No. 28 Po Toi O				Next Calibration Date: 22-Feb-21			
Chuen Road				Technician: Ting Chan			
Model:	Tisch		Serial No.:	4350			
Model:	TE-5170						
CONDITIONS							
Sea Level Pressure (hPa): 1016.9				Corrected Pressure (mm Hg): 762.7			
Temperature (°C): 18.4				Temperature (K): 291			
CALIBRATION ORIFICE							
Make:	Tisch		Qstd Slope:	2.11508			
Model:	TE-5025A		Qstd Intercept:	-0.02962			
Calibration Date:	11-Sep-20		Expiry Date:	11-Sep-21			
S/N:	2154						
CALIBRATIONS							
Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m³/min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	6.50	-8.00	14.500	1.838	57.00	57.75	Slope = 66.0171
13	5.20	-7.60	12.800	1.728	47.00	47.61	Intercept = -65.2493
10	4.40	-6.80	11.200	1.617	40.00	40.52	Corr. coeff.= 0.9938
7	3.50	-6.40	9.900	1.521	34.00	34.44	
5	2.20	-5.80	8.000	1.369	26.00	26.34	
Calculations:							
$Qstd = 1/m[\text{Sqrt}(\text{H2O}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})) - b]$							
$IC = I[\text{Sqrt}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})]$							
Qstd = standard flow rate							
IC = corrected chart response							
I = actual chart response							
m = calibrator Qstd slope							
b = calibrator Qstd intercept							
Ta = actual temperature during calibration (deg K)							
Pa = actual pressure during calibration (mm Hg)							
Tstd = 298 deg K							
Pstd = 760 mm Hg							
For subsequent calculation of sampler flow							
$1/m((I)[\text{Sqrt}(298/\text{Tav})(\text{Pav}/760)] - b)$							
m = sampler slope							
b = sampler intercept							
I = chart response							
Tav = daily average temperature							
Pav = daily average pressure							

FLOW RATE CHART

Standard Flow Rate (m³/min)	Actual Chart Response (IC)
1.369	26.34
1.521	34.44
1.617	40.52
1.728	47.61
1.838	57.75

**FUGRO TECHNICAL SERVICES LIMITED**

Room 723 - 726, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong.

Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com.hk

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : AMS-2N				Date of Calibration: 23-Dec-20			
Location ID: Open space between temporary structure near Hung Shing Temple and House No. 17A Po Toi O Chuen Road				Next Calibration Date: 22-Feb-21			
Technician: Ting Chan							
Make:	Tisch	Serial No.:		4374			
Model:	TE-5170						
CONDITIONS							
Sea Level Pressure (hPa):		1016.9		Corrected Pressure (mm Hg):		762.7	
Temperature (°C):		18.4		Temperature (K):		291	
CALIBRATION ORIFICE							
Make:	Tisch	Qstd Slope:		2.11508			
Model:	TE-5025A	Qstd Intercept:		-0.02962			
Calibration Date:	11-Sep-20	Expiry Date:		11-Sep-21			
S/N:	2154						
CALIBRATIONS							
Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m ³ /min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	6.40	-6.30	12.700	1.721	62.00	62.81	Slope = 26.5502 Intercept = 16.5839 Corr. coeff.= 0.9968
13	5.00	-5.20	10.200	1.544	57.00	57.75	
10	3.90	-3.70	7.600	1.334	51.00	51.67	
7	2.70	-2.80	5.500	1.137	45.00	45.59	
5	1.20	-1.20	2.400	0.756	37.00	37.48	
Calculations:							
$Qstd = 1/m[\text{Sqrt}(\text{H2O}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})) - b]$							
$IC = I[\text{Sqrt}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})]$							
Qstd = standard flow rate							
IC = corrected chart response							
I = actual chart response							
m = calibrator Qstd slope							
b = calibrator Qstd intercept							
Ta = actual temperature during calibration (deg K)							
Pa = actual pressure during calibration (mm Hg)							
Tstd = 298 deg K							
Pstd = 760 mm Hg							
For subsequent calculation of sampler flow							
$1/m(I)[\text{Sqrt}(298/\text{Tav})(\text{Pav}/760)] - b$							
m = sampler slope							
b = sampler intercept							
I = chart response							
Tav = daily average temperature							
Pav = daily average pressure							

FLOW RATE CHART

Standard Flow Rate (m ³ /min)	Actual Chart Response (IC)
0.756	37.48
1.137	45.59
1.334	51.67
1.544	57.75
1.721	62.81



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TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : AMS-3N				Date of Calibration: 23-Dec-20			
Location ID: Vacant land near Temporary Structure				Next Calibration Date: 22-Feb-21			
(House) Rocky Store				Technician: Ting Chan			
Make:	Tisch	Serial No.:	2089				
Model:	TE-5170						

CONDITIONS			
Sea Level Pressure (hPa):	1016.9	Corrected Pressure (mm Hg):	762.7
Temperature (°C):	18.4	Temperature (K):	291

CALIBRATION ORIFICE			
Make:	Tisch	Qstd Slope:	2.11508
Model:	TE-5025A	Qstd Intercept:	-0.02962
Calibration Date:	11-Sep-20	Expiry Date:	11-Sep-21
S/N:	2154		

CALIBRATIONS							
Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m³/min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	4.90	-5.80	10.700	1.581	60.00	60.78	Slope = 37.7333 Intercept = 0.3307 Corr. coeff. = 0.9947
13	4.10	-4.70	8.800	1.435	54.00	54.71	
10	3.20	-4.00	7.200	1.299	48.00	48.63	
7	2.10	-2.40	4.500	1.030	37.00	37.48	
5	1.00	-1.60	2.600	0.786	31.00	31.41	

Calculations:

Qstd = $1/m[\text{Sqrt}(\text{H2O}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})) - b]$
 IC = $I[\text{Sqrt}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})]$

Qstd = standard flow rate
 IC = corrected chart response
 I = actual chart response
 m = calibrator Qstd slope
 b = calibrator Qstd intercept
 Ta = actual temperature during calibration (deg K)
 Pa = actual pressure during calibration (mm Hg)
 Tstd = 298 deg K
 Pstd = 760 mm Hg

For subsequent calculation of sampler flow
 $1/m[(I) \text{Sqrt}(298/\text{Tav})(\text{Pav}/760)] - b]$

m = sampler slope
 b = sampler intercept
 I = chart response
 Tav = daily average temperature
 Pav = daily average pressure

FLOW RATE CHART

Standard Flow Rate (m³/min)	Actual Chart Response (IC)
0.786	31.41
1.030	37.48
1.299	48.63
1.435	54.71
1.581	60.78



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TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : AMS-4N				Date of Calibration: 23-Dec-20			
Location ID: Resting shelter near Seacrest Villas				Next Calibration Date: 22-Feb-21			
Make: Tisch		Serial No.: 3796		Technician: Ting Chan			
Model: TE-5170							

CONDITIONS							
Sea Level Pressure (hPa):		1016.9		Corrected Pressure (mm Hg):		762.7	
Temperature (°C):		18.4		Temperature (K):		291	

CALIBRATION ORIFICE							
Make: Tisch		Qstd Slope:		2.11508			
Model: TE-5025A		Qstd Intercept:		-0.02962			
Calibration Date: 11-Sep-20		Expiry Date:		11-Sep-21			
S/N: 2154							

CALIBRATIONS							
Plate No.	H2O (L) (in)	H2O (R) (in)	H2O (in)	Qstd (m³/min)	I (chart)	IC (corrected)	LINEAR REGRESSION
18	6.30	-5.40	11.700	1.652	59.00	59.77	Slope = 44.8626 Intercept = -15.5708 Corr. coeff. = 0.9939
13	5.50	-4.30	9.800	1.513	51.00	51.67	
10	4.70	-3.40	8.100	1.377	46.00	46.60	
7	3.50	-2.30	5.800	1.168	34.00	34.44	
5	2.10	-1.00	3.100	0.857	24.00	24.31	

Calculations:

Qstd = $1/m[\text{Sqrt}(\text{H2O}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})) - b]$
IC = $I[\text{Sqrt}(\text{Pa}/\text{Pstd})(\text{Tstd}/\text{Ta})]$

Qstd = standard flow rate
IC = corrected chart response
I = actual chart response
m = calibrator Qstd slope
b = calibrator Qstd intercept
Ta = actual temperature during calibration (deg K)
Pa = actual pressure during calibration (mm Hg)
Tstd = 298 deg K
Pstd = 760 mm Hg

For subsequent calculation of sampler flow
 $1/m((I) [\text{Sqrt}(298/\text{Tav})(\text{Pav}/760)] - b)$

m = sampler slope
b = sampler intercept
I = chart response
Tav = daily average temperature
Pav = daily average pressure

FLOW RATE CHART

Appendix 3-2

Calibration Certificate for the Direct Reading Dust Meters

Report no. : 940891CA202793(1)

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CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
 Manufacturer : SIBATA
 Model No. : LD-5R
 Serial No. : 761106
 Specification Limit : NA
 Next Calibration Date : 26-Nov-2021

Laboratory Information

Description : 1. Balance 2. TSP high volume air sampler
 Equipment ID. / Serial no. : 1. C-065-9 2. 4350
 Date of Calibration : 27-Nov-2020 Ambient Temperature : 25 ± 10 °C
 Calibration Location : General Chemical Laboratory of FTS and Ma Wan A1 Site Boundary
 Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.3486	5134	85.57
0.1257	4394	73.23
0.0943	4408	73.47

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.002448
3. Correlation coefficient (r) : 0.9916

Checked by : Cherry Date : 30-12-2020 Certified by : K.T. Leung Date : 5-1-2021

CA-R-297 (22/07/2009)

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no. : 940891CA202730(4)

Page 1 of 1

CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
Manufacturer : SIBATA
Model No. : LD-5R
Serial No. : 620407
Specification Limit : NA
Next Calibration Date : 22-Nov-2021

Laboratory Information

Description : 1. Balance 2. TSP high volume air sampler
Equipment ID. / Serial no. : 1. C-065-9 2. 4350
Date of Calibration : 23-Nov-2020 Ambient Temperature : 25 ± 10 °C
Calibration Location : General Chemical Laboratory of FTS and Ma Wan A1 Site Boundary
Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.0915	3317	55.28
0.0469	3094	51.57
0.1172	3491	58.18

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.001549
3. Correlation coefficient (r) : 0.9966

Checked by : C. Wong Date : 15-12-2020 Certified by : K.T. Leung Date : 15-12-2020
CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no. : 940891CA202793

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CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
Manufacturer : SIBATA
Model No. : LD-5R
Serial No. : 620408
Specification Limit : NA
Next Calibration Date : 26-Nov-2021

Laboratory Information

Description : 1. Balance 2. TSP high volume air sampler
Equipment ID. / Serial no. : 1. C-065-9 2. 4350
Date of Calibration : 27-Nov-2020 Ambient Temperature : 25 ± 10 °C
Calibration Location : General Chemical Laboratory of FTS and Ma Wan A1 Site Boundary
Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.3486	5200	86.67
0.1257	4582	76.37
0.0943	4417	73.62

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.002403
3. Correlation coefficient (r) : 0.9962

Checked by : Cherry Date : 30-12-2020 Certified by : K.T. Leung Date : 5-1-2021

CA-R-297 (22/07/2009)

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no. : 940891CA202730(7)

Page 1 of 1

CALIBRATION CERTIFICATE OF DUST METER

Client : Fugro Technical Services Limited

Project : Calibration Services

Client Supplied Information

Details of Unit Under Test, UUT

Description : Laser dust monitor
 Manufacturer : SIBATA
 Model No. : LD-5R
 Serial No. : 882146
 Specification Limit : NA
 Next Calibration Date : 22-Nov-2021

Laboratory Information

Description : 1. Balance 2. TSP high volume air sampler
 Equipment ID. / Serial no. : 1. C-065-9 2. 4350
 Date of Calibration : 23-Nov-2020 Ambient Temperature : 25 ± 10 °C
 Calibration Location : General Chemical Laboratory of FTS and Ma Wan A1 Site Boundary
 Method Used : By direct comparison the weight of dust particle trapped in a filter paper using high volume sampler (TSP method) for a certain period, with the reading of the UUT. They should be placed at the same location and powered on and off at the same time.

Calibration Results :

Reference concentration (mg/m ³)	Total count for 1 hour	CPM (Count per minute)
0.0915	2788	46.47
0.0469	2287	38.12
0.1172	3129	52.15

Remarks:

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The interpolation equation : Concentration (mg/m³) = K x [UUT reading (CPM)], where K = 0.001869
3. Correlation coefficient (r) : 0.9990

Checked by : C. Y. Yung Date : 15-12-2020 Certified by : K. T. Leung Date : 15-12-2020

CA-R-297 (22/07/2009)

Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Appendix 3-3

Meteorological Data

Project No.: 1825

Port Shelter Phase 3, Po Toi O Sewage Treatment Plant EM&A

Daily Extract of Meteorological Observations, December 2020

Day*	Hong Kong Observatory							King's Park		Waglan Island^	
	Mean Pressure (hPa)	Air Temperature Absolute Daily Max (deg. C)	Mean (deg. C)	Absolute Daily Min (deg. C)	Mean Dew Point (deg. C)	Mean Relative Humidity (%)	Mean Amount of Cloud (%)	Total Rainfall (mm)	Total Bright Sunshine (hours)	Prevailing Wind Direction (degrees)	Mean Wind Speed (km/h)
01	1022.3	22.4	19.7	17.0	13.2	66	54	0.0	8.6	360	25.4
02	1020.5	22.7	19.9	17.4	13.0	65	28	0.0	9.5	360	26.3
03	1021.0	20.6	17.4	15.4	10.5	64	11	0.0	9.6	350	42.0
04	1021.4	18.5	15.9	13.8	8.9	63	14	0.0	9.6	360	38.3
05	1021.5	19.8	16.8	13.9	9.7	63	35	0.0	9.0	360	28.0
06	1020.4	21.6	18.2	15.4	12.4	69	26	0.0	9.6	360	20.8
07	1020.4	23.2	20.7	18.1	13.3	63	75	0.0	5.7	360	15.3
08	1019.7	21.9	19.9	17.8	12.8	64	83	0.0	2.9	360	21.3
09	1017.7	21.4	19.8	18.4	14.4	71	88	Trace	0.3	070	22.8
10	1016.8	23.5	20.9	18.7	16.8	78	88	0.3	1.9	020	14.2
11	1015.9	23.6	21.6	20.3	18.3	82	81	Trace	4.0	080	19.1
12	1015.3	22.1	20.9	20.2	18.1	84	88	Trace	0.7	080	15.9
13	1014.7	22.5	20.9	20.2	16.8	78	86	0.0	2.3	070	29.0
14	1018.1	22.1	19.5	15.5	15.9	80	88	Trace	0.8	050	30.5
15	1022.2	16.8	15.4	13.4	10.4	72	88	Trace	0.4	010	28.0
16	1023.5	16.5	14.8	13.3	9.7	71	88	0.0	0.0	360	26.4
17	1022.1	16.5	14.9	13.6	9.8	71	88	0.0	0.0	010	24.0
18	1021.6	19.3	16.4	14.7	10.4	68	81	0.0	8.0	360	28.9

Project No.: 1825**Port Shelter Phase 3, Po Toi O Sewage Treatment Plant EM&A**

19	1023.4	17.8	15.0	12.5	7.9	63	70	0.0	5.1	350	35.1
20	1024.1	18.5	14.9	11.9	6.9	59	80	0.0	5.6	360	35.6
21	1022.1	19.6	16.5	13.0	8.1	58	79	0.0	9.4	350	29.8
22	1019.6	19.6	17.4	14.7	10.9	66	84	0.0	3.4	360	24.5
23	1016.9	19.7	18.4	16.9	15.5	83	88	1.2	0.1	060	24.0
24	1016.3	22.5	20.0	18.3	15.6	76	67	0.0	7.4	360	8.6
25	1018.7	20.9	18.9	17.4	14.9	77	84	0.0	4.9	070	29.7
26	1018.1	21.1	18.7	17.0	14.8	79	42	0.0	9.4	060	28.3
27	1015.8	24.5	20.4	17.6	14.9	71	24	0.0	9.4	020	12.7
28	1014.8	23.7	20.6	18.7	14.5	69	46	0.0	9.3	040	24.0
29	1014.8	24.5	21.0	18.7	16.3	75	30	0.0	9.4	060	16.1
30	1022.8	21.6	15.1	10.6	4.6	50	21	0.0	9.5	360	53.7
31	1027.0	14.2	10.9	8.1	-3.2	37	15	0.0	9.6	360	39.0
Mean/Total	1019.7	20.7	18.1	15.9	12.1	69	62	1.5	175.4	360	26.4
Climatological Normal?	1020.5	20.2	17.9	15.9	11.9	69	52	26.8	172.2	070	26.0

[^] Information of wind direction and wind speed for Waglan Island are based on automatic weather station data since January 1989

Trace means rainfall less than 0.05 mm

? 1981-2010 Climatological Normal, unless otherwise specified

* The meteorological data from HKO weather stations are recorded over a 24-hour interval

Source: <https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2020&m=12>

Project No.: 1825

Port Shelter Phase 3, Po Toi O Sewage Treatment Plant EM&A

Daily Extract of Meteorological Observations, January 2021

Day*	Hong Kong Observatory							King's Park		Waglan Island^	
	Mean Pressure (hPa)	Air Temperature			Mean Dew Point (deg. C)	Mean Relative Humidity (%)	Mean Amount of Cloud (%)	Total Rainfall (mm)	Total Bright Sunshine (hours)	Prevailing Wind Direction (degrees)	Mean Wind Speed (km/h)
		Absolute Daily Max (deg. C)	Mean (deg. C)	Absolute Daily Min (deg. C)							
01	1025.5	15.0	11.8	8.6	-1.4	40	14	0.0	9.6	360	25.6
02	1022.9	17.8	14.0	10.4	3.9	52	12	0.0	9.6	070	27.3
03	1021.9	20.6	16.7	13.4	9.9	65	54	0.0	9.2	040	26.5
04	1021.0	20.7	18.3	16.9	11.6	66	87	0.0	2.9	050	21.0
05	1020.1	21.9	18.8	17.3	11.9	65	60	0.0	5.3	060	15.5
06	1020.0	19.6	17.1	16.0	12.0	72	68	0.0	5.9	060	26.0
07	1020.8	18.3	15.3	10.6	9.1	67	88	0.0	2.0	360	35.3
08	1025.0	10.7	9.1	7.7	-0.6	52	88	0.0	0.0	360	45.5
09	1024.5	13.1	10.7	8.0	-3.3	38	84	0.0	2.7	360	27.0
10	1023.5	15.2	12.8	11.0	-0.4	40	88	0.0	0.9	040	27.4
11	1025.8	12.4	10.6	9.2	-1.1	44	88	0.0	0.0	360	45.5
12	1023.6	15.7	11.9	8.6	-3.8	33	8	0.0	9.7	360	35.2
13	1019.8	17.8	13.4	10.4	2.3	48	11	0.0	9.7	010	11.2
14	1017.8	19.5	15.2	11.8	6.0	55	18	0.0	9.7	020	11.7
15	1016.1	20.9	17.3	14.6	9.2	59	26	0.0	9.7	040	11.5
16	1017.4	20.3	17.6	15.8	11.5	68	69	0.0	9.2	060	29.5
17	1023.5	19.6	16.6	14.1	7.9	58	39	0.0	9.0	360	37.6
18	1023.3	17.3	14.2	11.7	4.7	53	5	0.0	9.6	360	20.0

Project No.: 1825**Port Shelter Phase 3, Po Toi O Sewage Treatment Plant EM&A**

19	1020.3	17.4	15.4	12.6	8.6	64	50	0.0	4.6	050	32.2
20	1018.1	21.4	18.2	16.1	12.4	69	85	0.0	3.4	050	30.2
21	1015.6	22.8	20.1	17.6	15.1	73	69	0.0	5.0	030	18.9
22	1013.4	24.5	20.3	18.2	16.6	80	61	0.0	9.8	310	7.6
23	1014.0	24.4	20.2	17.7	16.0	78	24	0.0	8.5	350	9.1
24	1017.1	20.0	18.4	17.3	15.3	83	73	Trace	4.6	060	32.7
25	1017.6	22.9	19.2	16.9	14.4	74	28	0.0	9.9	060	23.3
26	1016.9	23.5	19.6	17.4	15.6	78	9	0.0	9.4	040	10.7
27	1017.8	21.9	18.9	17.6	14.6	77	46	0.0	8.3	050	25.0
28	1020.7	22.8	19.1	16.5	13.2	70	27	0.0	8.8	040	17.8
29	1022.6	19.7	16.6	14.3	8.6	60	11	0.0	10.1	070	32.5
30	1022.5	19.5	16.7	14.8	10.8	68	27	0.0	10.0	060	33.3
31	1021.6	21.6	18.4	16.0	12.1	67	31	0.0	10.2	050	28.3
Mean/Total	1020.3	19.3	16.2	13.8	8.5	62	47	Trace	217.3	050	25.2
Climatological Normal(1991- 2020)	1020.1	18.7	16.5	14.6	11.7	74	62	33.2	145.8	060	25.1
Climatological Normal(1981- 2010)	1020.3	18.6	16.3	14.5	11.4	74	61	24.7	143.0	060	25.

[^] Information of wind direction and wind speed for Waglan Island are based on automatic weather station data since January 1989

Trace means rainfall less than 0.05 mm

* The meteorological data from HKO weather stations are recorded over a 24-hour interval

Source: <https://www.hko.gov.hk/en/cis/dailyExtract.htm?y=2021&m=1>

Appendix 3-4

Analysis of Filters Used in Air Quality Monitoring

Report No. : 181172EN203278(2)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 23/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6206, M6222, M6223, M6224

Date of receipt of sample : 30/12/2020

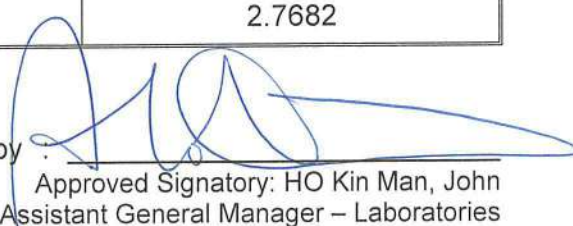
Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6206	2.7162	2.7351
M6222	2.6983	2.7684
M6223	2.6865	2.7527
M6224	2.6955	2.7682

Supervised by : K.F. Wong

Certified by : 
Approved Signatory: HO Kin Man, John
Assistant General Manager – LaboratoriesDate : 11/1/2021
** End of Report ***Note : This report refers only to the sample(s) tested.*

Report No. : 181172EN203278



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 24/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6260, M6261, M6262, M6263

Date of receipt of sample : 28/12/2020

Date test completed : 30/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6260	2.7098	2.7844
M6261	2.7219	2.7495
M6262	2.6995	2.7771
M6263	2.7056	2.7826

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date :

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(1)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 25/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6264, M6265, M6266, M6267

Date of receipt of sample : 28/12/2020

Date test completed : 30/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6264	2.7059	2.7976
M6265	2.7195	2.8043
M6266	2.7090	2.8028
M6267	2.7131	2.7245

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date :

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(4)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 26/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6268, M6269, M6270, M6371

Date of receipt of sample : 30/12/2020

Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6268	2.7095	2.7939
M6269	2.7205	2.8059
M6270	2.7158	2.8213
M6371	2.6670	2.6880

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date :

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(3)A



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 1 sample of TSP filter paper

Sample identification : -

Sampling date : 27/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6271

Date of receipt of sample : 30/12/2020

Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6271	2.7188	2.7240

Remark : This report is to supersede our former report 181172EN203278(3)

Supervised by : K.F. WongCertified by : Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date

** End of Report **

: 15/3/2021*Note : This report refers only to the sample(s) tested.*

Report No. : 181172EN203278(5)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 3 sample of TSP filter paper

Sample identification : -

Sampling date : 27/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6226, M6227, M6322

Date of receipt of sample : 30/12/2020

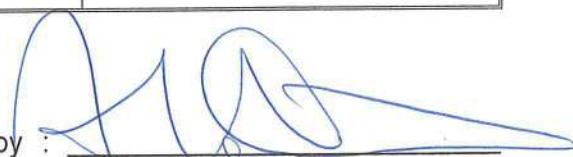
Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6226	2.6958	2.7895
M6227	2.6942	2.7630
M6322	2.6655	2.7134

Supervised by : K.F. Wong

Certified by : 
Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 11/1/2021
** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(6)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 28/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6207, M6208, M6209, M6225

Date of receipt of sample : 30/12/2020

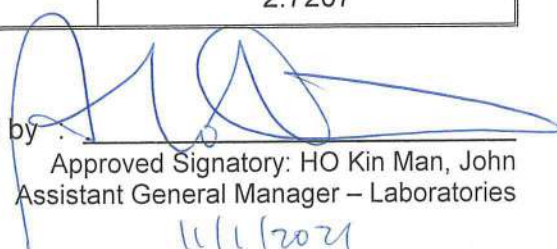
Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6207	2.7038	2.7766
M6208	2.7086	2.7834
M6209	2.7158	2.7685
M6225	2.6882	2.7207

Supervised by : K.F. Wong

Certified by : 

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 11/1/2021
**** End of Report ****
Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(7)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 29/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6210, M6527, M6528, M6529

Date of receipt of sample : 30/12/2020

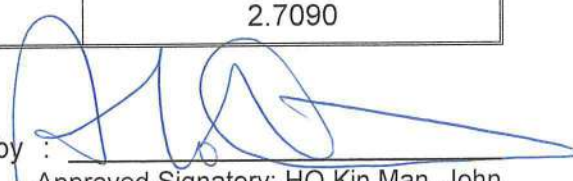
Date test completed : 31/12/2020

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6210	2.7087	2.8140
M6527	2.5934	2.6918
M6528	2.6140	2.6757
M6529	2.6026	2.7090

Supervised by : K.F. Wong

Certified by : 
Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 11/1/2021
** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(8)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 30/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6228, M6229, M6230, M6231

Date of receipt of sample : 02/01/2021

Date test completed : 05/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6228	2.6082	2.7618
M6229	2.6301	2.7169
M6230	2.6069	2.6746
M6231	2.6557	2.8429

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(9)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 31/12/2020

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6649, M6650, M6651, M6652

Date of receipt of sample : 02/01/2021

Date test completed : 05/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6649	2.7335	2.7863
M6650	2.7118	2.7812
M6651	2.7329	2.7855
M6652	2.7125	2.7852

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date :

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(10)



Page 1 of 1

Test Report on Analysis of Filters**Information Supplied by Client**

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 01/01/2021

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6232, M6233, M6234, M6235

Date of receipt of sample : 04/01/2021

Date test completed : 05/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6232	2.6927	2.7451
M6233	2.7131	2.7504
M6234	2.7046	2.7609
M6235	2.7159	2.7584

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(11)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 02/01/2021

Test required : Provision of conditioned & tared filter paper and subsequent reconditioning and reweighing of returned filter paper for TSP monitoring

Laboratory Information

Filter paper I.D. : M6236, M6237, M6238, M6239

Date of receipt of sample : 04/01/2021

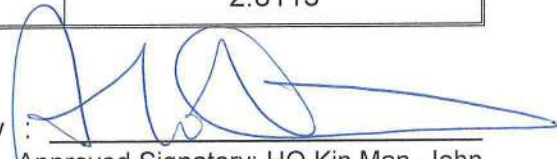
Date test completed : 05/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6236	2.6949	2.7303
M6237	2.7130	2.7461
M6238	2.7051	2.7741
M6239	2.7040	2.8113

Supervised by : K.F. Wong

Certified by : 

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 11/1/2021
**** End of Report ****
Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(12)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 03/01/2021

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6653, M6654, M6655, M6656

Date of receipt of sample : 04/01/2021

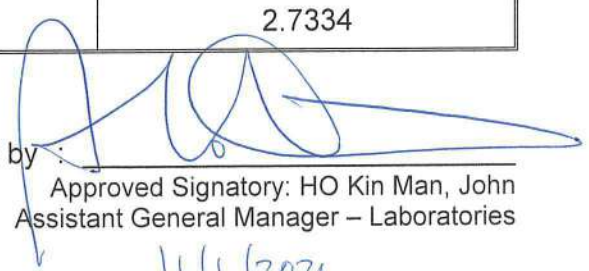
Date test completed : 05/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6653	2.7001	2.8069
M6654	2.7178	2.7556
M6655	2.6687	2.7555
M6656	2.6817	2.7334

Supervised by : K.F. Wong

Certified by : 
Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 11/1/2021
** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(13)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 04/01/2021

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6681, M6689, M6690, M6692

Date of receipt of sample : 06/01/2021

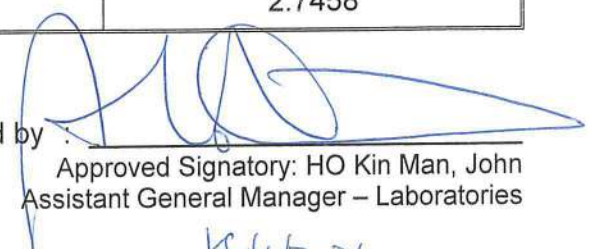
Date test completed : 07/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6681	2.6768	2.7954
M6689	2.7187	2.7663
M6690	2.7076	2.7727
M6692	2.6822	2.7458

Supervised by : K.F. Wong

Certified by : 
Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date : 4/1/2021

** End of Report **

Note : This report refers only to the sample(s) tested.

Report No. : 181172EN203278(14)



Page 1 of 1

Test Report on Analysis of Filters
Information Supplied by Client

Client : Fugro Technical Services Ltd.

Client's address : Room 723 & 725, 7/F., Block B, Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Chung, N.T.

Project : Provision of Air, Noise, and Water Quality Monitoring for Contract
No. SD2/2020 Sewerage Works at Po Toi O

Sample description : 4 sample of TSP filter paper

Sample identification : -

Sampling date : 05/01/2021

Test required : Provision of conditioned & tared filter paper and subsequent
reconditioning and reweighing of returned filter paper for TSP
monitoring

Laboratory Information

Filter paper I.D. : M6657, M6658, M6659, M6660

Date of receipt of sample : 06/01/2021

Date test completed : 07/01/2021

Test method used : USEPA Method 40 CFR Part 50 Appendix B.

Results :

Filter paper I.D.	Initial wt. of filter, g	Final wt. of filter, g
M6657	2.6602	2.7055
M6658	2.6622	2.7288
M6659	2.6616	2.7242
M6660	2.6676	2.7579

Supervised by : K.F. Wong

Certified by :

Approved Signatory: HO Kin Man, John
Assistant General Manager – Laboratories

Date :

** End of Report **

Note : This report refers only to the sample(s) tested.

Appendix 3-5

24-hour and 1-hour TSP Monitoring Result

1- hour TSP Monitoring Result for

Contract No. SD 2/2020 Sewerage Works at Po Toi O

Monitoring Location: **AMS1N**

Start Date	Weather		Start Time	*Concentration ($\mu\text{g}/\text{m}^3$)
23-Dec-20	Fine	1st hr	12:13	82
		2nd hr	13:13	89
		3rd hr	14:13	77
24-Dec-20	Fine	1st hr	14:08	77
		2nd hr	15:08	84
		3rd hr	16:08	84
25-Dec-20	Fine	1st hr	11:17	87
		2nd hr	12:17	92
		3rd hr	13:17	89
26-Dec-20	Fine	1st hr	12:43	84
		2nd hr	13:43	99
		3rd hr	14:43	89
27-Dec-20	Fine	1st hr	12:43	111
		2nd hr	13:43	123
		3rd hr	14:43	113
28-Dec-20	Fine	1st hr	09:30	130
		2nd hr	10:30	125
		3rd hr	11:30	132
29-Dec-20	Fine	1st hr	09:30	128
		2nd hr	10:30	118
		3rd hr	11:30	125
30-Dec-20	Fine	1st hr	11:58	87
		2nd hr	12:58	77
		3rd hr	13:58	96
31-Dec-20	Fine	1st hr	09:49	142
		2nd hr	10:49	159
		3rd hr	11:49	147
1-Jan-21	Fine	1st hr	12:20	58
		2nd hr	13:20	63
		3rd hr	14:20	60

Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data

2-Jan-21	Fine	1st hr	10:40	82
		2nd hr	11:40	89
		3rd hr	12:40	94
3-Jan-21	Fine	1st hr	15:20	166
		2nd hr	16:20	145
		3rd hr	17:20	149
4-Jan-21	Fine	1st hr	09:52	106
		2nd hr	10:52	135
		3rd hr	11:52	118
5-Jan-21	Fine	1st hr	11:36	96
		2nd hr	12:36	125
		3rd hr	13:36	135
		Min		58
		Max		166
		Average		106

* The presented concentrations are the results after calculation with direct reading from dust meter and the K-factor of the dust meter.

Monitoring Location : AMS2N1

Start Date	Weather		Start Time	*Concentration ($\mu\text{g}/\text{m}^3$)
23-Dec-20	Fine	1st hr	12:20	51
		2nd hr	13:20	53
		3rd hr	14:20	48
24-Dec-20	Fine	1st hr	14:16	53
		2nd hr	15:16	57
		3rd hr	16:16	48
25-Dec-20	Fine	1st hr	11:23	33
		2nd hr	12:23	48
		3rd hr	13:23	56
26-Dec-20	Fine	1st hr	12:51	31
		2nd hr	13:51	28
		3rd hr	14:51	37
27-Dec-20	Fine	1st hr	10:57	31
		2nd hr	11:57	29
		3rd hr	12:57	29
28-Dec-20	Fine	1st hr	09:44	29
		2nd hr	10:44	20
		3rd hr	11:44	20
29-Dec-20	Fine	1st hr	09:42	22
		2nd hr	10:42	25
		3rd hr	11:42	25
30-Dec-20	Fine	1st hr	12:07	54
		2nd hr	13:07	57
		3rd hr	14:07	46
31-Dec-20	Fine	1st hr	09:58	39
		2nd hr	10:58	31
		3rd hr	11:58	43
1-Jan-21	Fine	1st hr	12:29	82
		2nd hr	13:29	82
		3rd hr	14:29	84
2-Jan-21	Fine	1st hr	10:48	59
		2nd hr	11:48	60
		3rd hr	12:48	65

Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data

3-Jan-21	Fine	1st hr	15:25	43
		2nd hr	16:25	48
		3rd hr	17:25	54
4-Jan-21	Fine	1st hr	10:08	40
		2nd hr	11:08	34
		3rd hr	12:08	37
5-Jan-21	Fine	1st hr	11:43	42
		2nd hr	12:43	48
		3rd hr	13:43	45
		Min		20
		Max		84
		Average		44

* The presented concentrations are the results after calculation with direct reading from dust meter and the K-factor of the dust meter.

Monitoring Location : AMS3N

Start Date	Weather		Start Time	*Concentration ($\mu\text{g}/\text{m}^3$)
23-Dec-20	Fine	1st hr	12:28	79
		2nd hr	13:28	82
		3rd hr	14:28	74
24-Dec-20	Fine	1st hr	14:21	106
		2nd hr	15:21	127
		3rd hr	16:21	159
25-Dec-20	Fine	1st hr	11:32	144
		2nd hr	12:32	161
		3rd hr	13:32	180
26-Dec-20	Fine	1st hr	13:02	77
		2nd hr	14:02	74
		3rd hr	15:02	72
27-Dec-20	Fine	1st hr	11:04	70
		2nd hr	12:04	72
		3rd hr	13:04	77
28-Dec-20	Fine	1st hr	09:57	58
		2nd hr	10:57	50
		3rd hr	11:57	50
29-Dec-20	Fine	1st hr	09:54	43
		2nd hr	10:54	31
		3rd hr	11:54	31
30-Dec-20	Fine	1st hr	12:18	96
		2nd hr	13:18	91
		3rd hr	14:18	101
31-Dec-20	Fine	1st hr	10:17	53
		2nd hr	11:17	70
		3rd hr	12:17	60
1-Jan-21	Fine	1st hr	12:39	77
		2nd hr	13:39	87
		3rd hr	14:39	79
2-Jan-21	Fine	1st hr	10:58	94
		2nd hr	11:58	65
		3rd hr	12:58	82
3-Jan-21	Fine	1st hr	15:31	62

Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data

		2nd hr	16:31	72
		3rd hr	17:31	60
4-Jan-21	Fine	1st hr	10:20	67
		2nd hr	11:20	60
		3rd hr	12:20	53
5-Jan-21	Fine	1st hr	11:52	87
		2nd hr	12:52	103
		3rd hr	13:52	113
		Min		31
		Max		180
		Average		82

* The presented concentrations are the results after calculation with direct reading from dust meter and the K-factor of the dust meter.

Monitoring Location : AMS4N

Start Date	Weather		Start Time	*Concentration ($\mu\text{g}/\text{m}^3$)
23-Dec-20	Fine	1st hr	12:44	60
		2nd hr	13:44	73
		3rd hr	14:44	67
24-Dec-20	Fine	1st hr	14:33	60
		2nd hr	15:33	52
		3rd hr	16:33	54
25-Dec-20	Fine	1st hr	11:45	39
		2nd hr	12:45	37
		3rd hr	13:45	34
26-Dec-20	Fine	1st hr	13:18	36
		2nd hr	14:18	34
		3rd hr	15:18	34
27-Dec-20	Fine	1st hr	11:17	22
		2nd hr	12:17	26
		3rd hr	13:17	24
28-Dec-20	Fine	1st hr	10:11	22
		2nd hr	11:11	19
		3rd hr	12:11	19
29-Dec-20	Fine	1st hr	10:11	22
		2nd hr	11:11	24
		3rd hr	12:11	24
30-Dec-20	Fine	1st hr	12:24	52
		2nd hr	13:24	54
		3rd hr	14:24	52
31-Dec-20	Fine	1st hr	10:30	67
		2nd hr	11:30	71
		3rd hr	12:30	78
1-Jan-21	Fine	1st hr	12:50	47
		2nd hr	13:50	52
		3rd hr	14:50	60
2-Jan-21	Fine	1st hr	11:06	37
		2nd hr	12:06	34
		3rd hr	13:06	26
3-Jan-21	Fine	1st hr	15:40	52

Contract No. EP516/2016
 Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
 Baseline Noise Monitoring Data

		2nd hr	16:40	58
		3rd hr	17:40	54
4-Jan-21	Fine	1st hr	10:34	36
		2nd hr	11:34	41
		3rd hr	12:34	37
5-Jan-21	Fine	1st hr	11:09	30
		2nd hr	12:09	39
		3rd hr	13:09	28
		Min		19
		Max		78
		Average		43

* The presented concentrations are the results after calculation with direct reading from dust meter and the K-factor of the dust meter.

24-hour TSP Monitoring Result for Contract No. SD 2/2020 Sewerage Works at Po Toi O

Monitoring Location : AMS1N

Start Date	Weather Condition	Air Temperature (K)	Atmospheric Pressure (mmHg)	Filter Weight (g)		Particulate weight (g)	Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average flow (m ³ /min)	Total volume (m ³)	Concentration (ug/m ³)
				Initial	Final			Initial	Final			
23-Dec-20	Fine	291.4	762.7	2.6865	2.7527	0.0662	24	1.63	1.62	1.63	2345.4	28.2
24-Dec-20	Fine	293.0	762.3	2.7098	2.7844	0.0746	24	1.68	1.67	1.67	2409.7	31.0
25-Dec-20	Fine	291.9	764.1	2.7059	2.7976	0.0917	24	1.66	1.65	1.66	2389.3	38.4
26-Dec-20	Fine	291.7	763.6	2.7095	2.7939	0.0844	24	1.68	1.64	1.66	2389.5	35.3
27-Dec-20	Fine	293.4	761.9	2.6655	2.7134	0.0479	24	1.63	1.69	1.66	2387.2	20.1
28-Dec-20	Fine	293.6	761.2	2.7158	2.7685	0.0527	24	1.55	1.55	1.55	2233.6	23.6
29-Dec-20	Fine	294.0	761.2	2.7087	2.8140	0.1053	24	1.63	1.59	1.61	2321.0	45.4
30-Dec-20	Fine	288.1	767.2	2.6082	2.7618	0.1536	24	1.64	1.62	1.63	2349.4	65.4
31-Dec-20	Fine	283.9	770.3	2.7118	2.7812	0.0694	24	1.68	1.62	1.65	2376.3	29.2
1-Jan-21	Fine	284.8	769.2	2.6927	2.7451	0.0524	24	1.67	1.65	1.66	2397.0	21.9
2-Jan-21	Fine	287.0	767.2	2.7040	2.8113	0.1073	24	1.61	1.62	1.62	2328.0	46.1
3-Jan-21	Fine	289.7	766.5	2.7001	2.8069	0.1068	24	1.67	1.69	1.68	2413.7	44.2
4-Jan-21	Fine	291.3	765.8	2.6822	2.7458	0.0636	24	1.57	1.56	1.57	2258.5	28.2
5-Jan-21	Fine	291.8	765.1	2.6676	2.7579	0.0903	24	1.65	1.65	1.65	2378.7	38.0
											Min	20.1
											Max	65.4
											Average	35.3

Monitoring Location: AMS2N1

Start Date	Weather Condition	Air Temperature (K)	Atmospheric Pressure (mmHg)	Filter Weight (g)		Particulate weight (g)	Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average flow (m ³ /min)	Total volume (m ³)	Concentration (ug/m ³)
				Initial	Final			Initial	Final			
23-Dec-20	Fine	291.4	762.7	2.6983	2.7684	0.0701	24	0.90	0.88	0.89	1284.2	54.6
24-Dec-20	Fine	293.0	762.3	2.7056	2.7826	0.0770	24	0.90	0.88	0.89	1280.9	60.1
25-Dec-20	Fine	291.9	764.1	2.7195	2.8043	0.0848	24	0.90	0.88	0.89	1268.7	66.8
26-Dec-20	Fine	291.7	763.6	2.7205	2.8059	0.0854	24	1.05	1.03	1.04	1502.7	56.8
27-Dec-20	Fine	293.4	761.9	2.6958	2.7895	0.0937	24	0.71	0.69	0.70	1007.4	93.0
28-Dec-20	Fine	293.6	761.2	2.7086	2.7834	0.0748	24	0.82	0.81	0.81	1170.0	63.9
29-Dec-20	Fine	294.0	761.2	2.6140	2.6757	0.0617	24	0.74	0.73	0.74	1060.4	58.2
30-Dec-20	Fine	288.1	767.2	2.6557	2.8429	0.1872	24	0.84	0.81	0.82	1184.0	158.1
31-Dec-20	Fine	283.9	770.3	2.7125	2.7852	0.0727	24	0.70	0.66	0.68	973.6	74.7
1-Jan-21	Fine	284.8	769.2	2.7046	2.7609	0.0563	24	0.81	0.77	0.79	1136.5	49.5
2-Jan-21	Fine	287.0	767.2	2.7051	2.7741	0.0690	24	0.69	0.66	0.67	966.6	71.4
3-Jan-21	Fine	289.7	766.5	2.6687	2.7555	0.0868	24	0.76	0.73	0.74	1071.2	81.0
4-Jan-21	Fine	291.3	765.8	2.6768	2.7954	0.1186	24	0.83	0.81	0.82	1177.3	100.7
5-Jan-21	Fine	291.8	765.1	2.6622	2.7288	0.0666	24	0.67	0.66	0.66	957.5	69.6
											Min	49.5
											Max	158.1
											Average	75.6

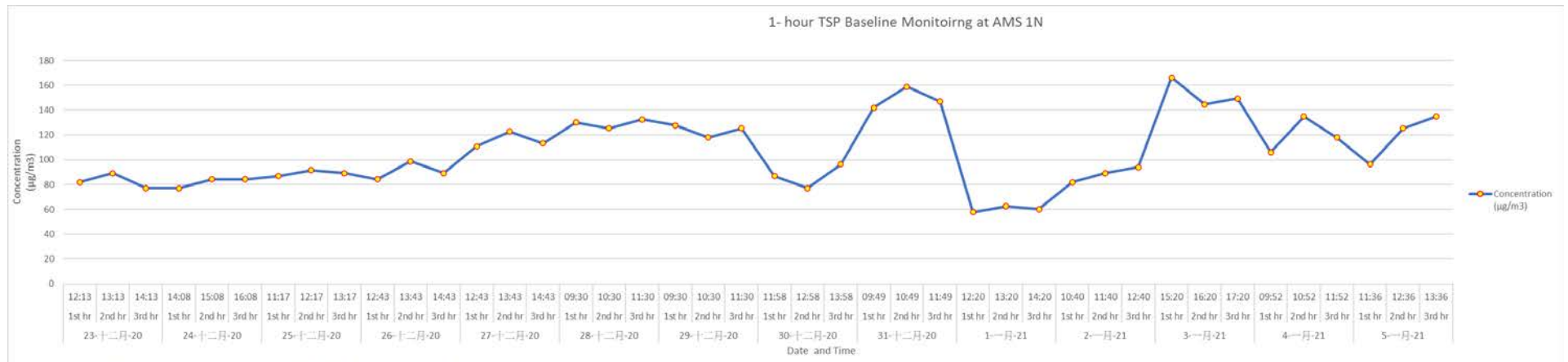
Monitoring Location: AMS3N

Start Date	Weather Condition	Air Temperature (K)	Atmospheric Pressure (mmHg)	Filter Weight (g)		Particulate weight (g)	Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average flow (m ³ /min)	Total volume (m ³)	Concentration (ug/m ³)
				Initial	Final			Initial	Final			
23-Dec-20	Fine	291.4	762.7	2.6955	2.7682	0.0727	24	1.44	1.42	1.43	2061.6	35.3
24-Dec-20	Fine	293.0	762.3	2.6995	2.7710	0.0715	24	1.49	1.48	1.48	2135.2	33.5
25-Dec-20	Fine	291.9	764.1	2.7090	2.8028	0.0938	24	1.39	1.37	1.38	1984.8	47.3
26-Dec-20	Fine	291.7	763.6	2.7158	2.8213	0.1055	24	1.36	1.34	1.35	1946.5	54.2
27-Dec-20	Fine	293.4	761.9	2.6942	2.7630	0.0688	24	1.06	1.05	1.06	1520.8	45.2
28-Dec-20	Fine	293.6	761.2	2.7038	2.7766	0.0728	24	1.22	1.21	1.22	1750.1	41.6
29-Dec-20	Fine	294.0	761.2	2.6026	2.7090	0.1064	24	0.98	1.00	0.99	1423.8	74.7
30-Dec-20	Fine	288.1	767.2	2.6301	2.7169	0.0868	24	1.05	1.02	1.04	1492.0	58.2
31-Dec-20	Fine	283.9	770.3	2.7329	2.7855	0.0526	24	1.14	1.10	1.12	1615.4	32.6
1-Jan-21	Fine	284.8	769.2	2.7159	2.7584	0.0425	24	1.14	1.05	1.09	1575.3	27.0
2-Jan-21	Fine	287.0	767.2	2.6949	2.7303	0.0354	24	1.02	1.00	1.01	1454.8	24.3
3-Jan-21	Fine	289.7	766.5	2.6817	2.7334	0.0517	24	0.96	0.95	0.95	1374.0	37.6
4-Jan-21	Fine	291.3	765.8	2.7076	2.7727	0.0651	24	0.93	0.92	0.93	1333.3	48.8
5-Jan-21	Fine	291.8	765.1	2.6616	2.7242	0.0626	24	1.01	1.00	1.01	1447.7	43.2
											Min	24.3
											Max	74.7
											Average	43.1

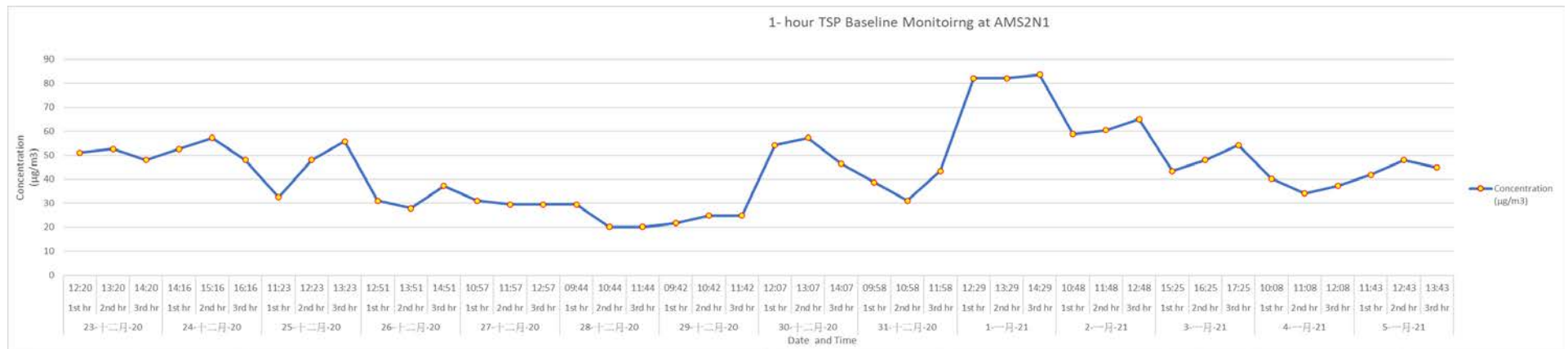
Monitoring Location: AMS4N

Start Date	Weather Condition	Air Temperature (K)	Atmospheric Pressure (mmHg)	Filter Weight (g)		Particulate weight (g)	Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average flow (m ³ /min)	Total volume (m ³)	Concentration (ug/m ³)
				Initial	Final			Initial	Final			
23-Dec-20	Fine	291.4	762.7	2.7162	2.7351	0.0189	24	1.34	1.31	1.32	1905.3	9.9
24-Dec-20	Fine	293.0	762.3	2.7219	2.7495	0.0276	24	1.29	1.28	1.29	1854.7	14.9
25-Dec-20	Fine	291.9	764.1	2.7131	2.7245	0.0114	24	1.25	1.26	1.26	1808.2	6.3
26-Dec-20	Fine	291.7	763.6	2.6670	2.6880	0.0210	24	1.25	1.24	1.24	1792.2	11.7
27-Dec-20	Fine	293.4	761.9	2.7188	2.7240	0.0052	24	0.91	0.90	0.91	1305.9	4.0
28-Dec-20	Fine	293.6	761.2	2.6882	2.7207	0.0325	24	1.29	1.33	1.31	1885.6	17.2
29-Dec-20	Fine	294.0	761.2	2.5934	2.6918	0.0984	24	1.31	1.35	1.33	1839.8	53.5
30-Dec-20	Fine	288.1	767.2	2.6069	2.6746	0.0677	24	1.39	1.33	1.36	1960.3	34.5
31-Dec-20	Fine	283.9	770.3	2.7335	2.7863	0.0528	24	1.27	1.24	1.25	1803.9	29.3
1-Jan-21	Fine	284.8	769.2	2.7131	2.7504	0.0373	24	1.26	1.24	1.25	1655.2	22.5
2-Jan-21	Fine	287.0	767.2	2.7130	2.7461	0.0331	24	1.33	1.26	1.29	1779.7	18.6
3-Jan-21	Fine	289.7	766.5	2.7178	2.7556	0.0378	24	1.28	1.28	1.28	1844.1	20.5
4-Jan-21	Fine	291.3	765.8	2.7187	2.7663	0.0476	24	1.34	1.35	1.35	1934.9	24.6
5-Jan-21	Fine	291.8	765.1	2.6602	2.7055	0.0453	24	1.30	1.31	1.30	1868.7	24.2
											Min	4.0
											Max	53.5
											Average	20.8

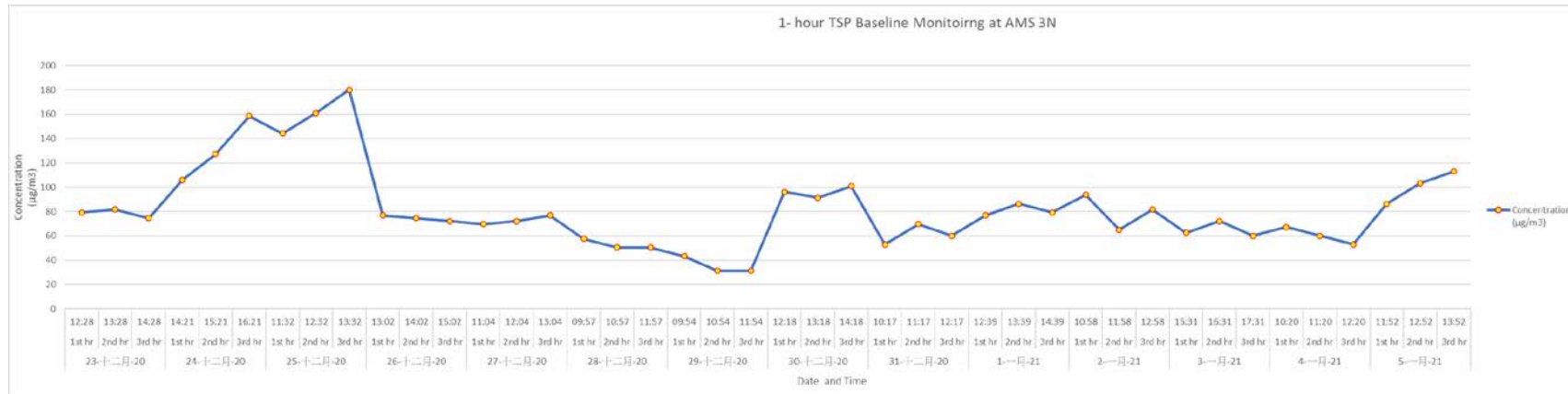
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
AMS1N – 1 – hour TSP Baseline monitoring Chart



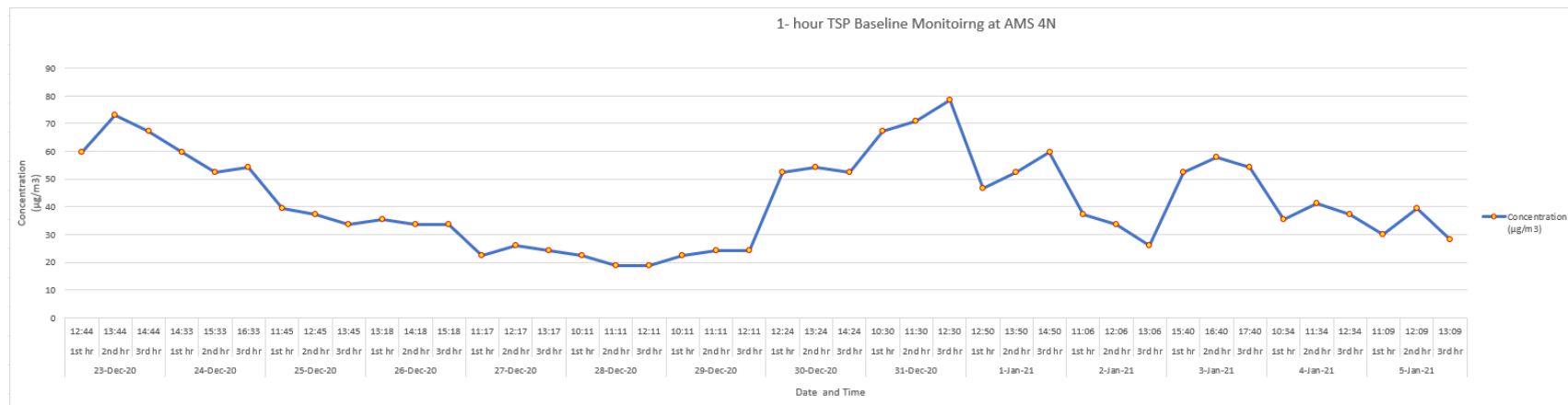
AMS2N1 – 1 – hour TSP Baseline monitoring Chart



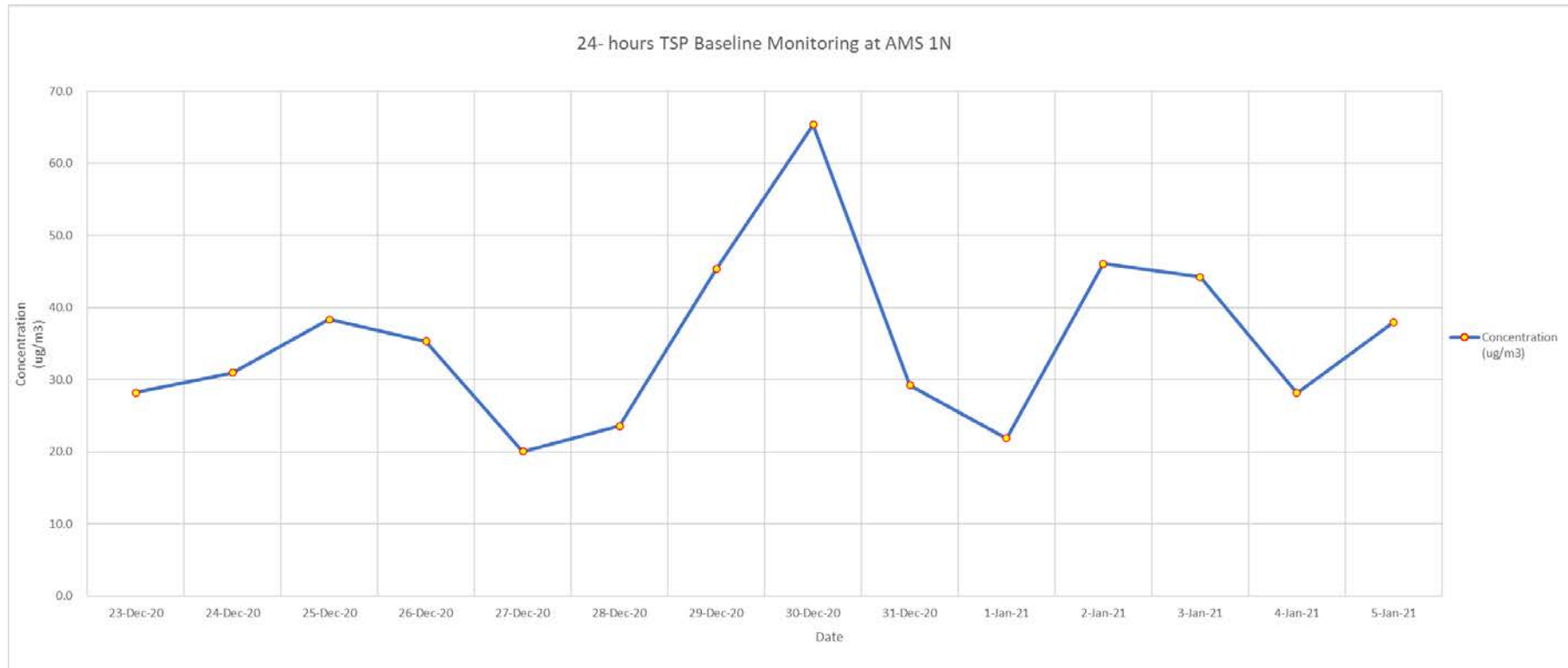
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
AMS3N – 1 – hour TSP Baseline monitoring Chart



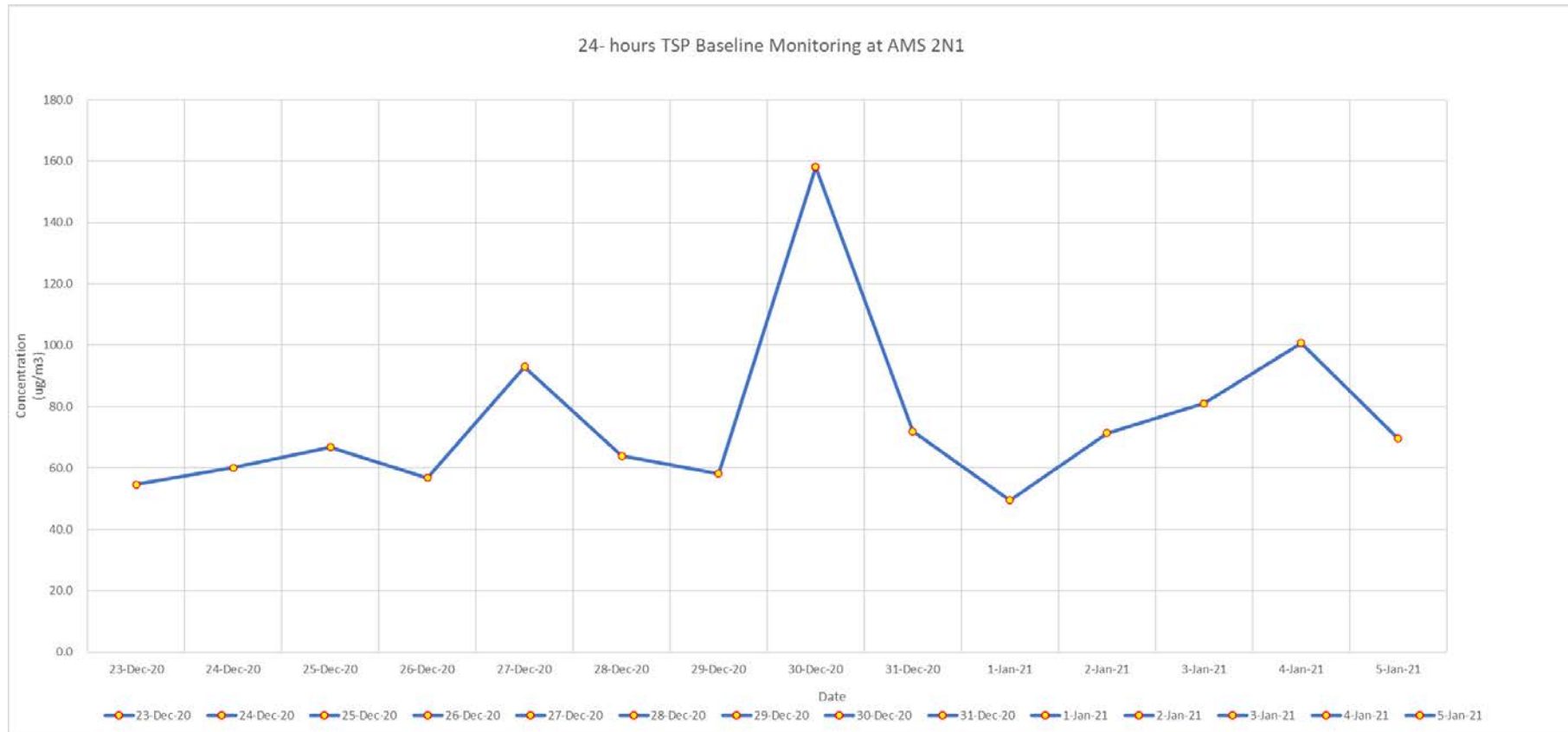
AMS4N – 1 – hour TSP Baseline Monitoring



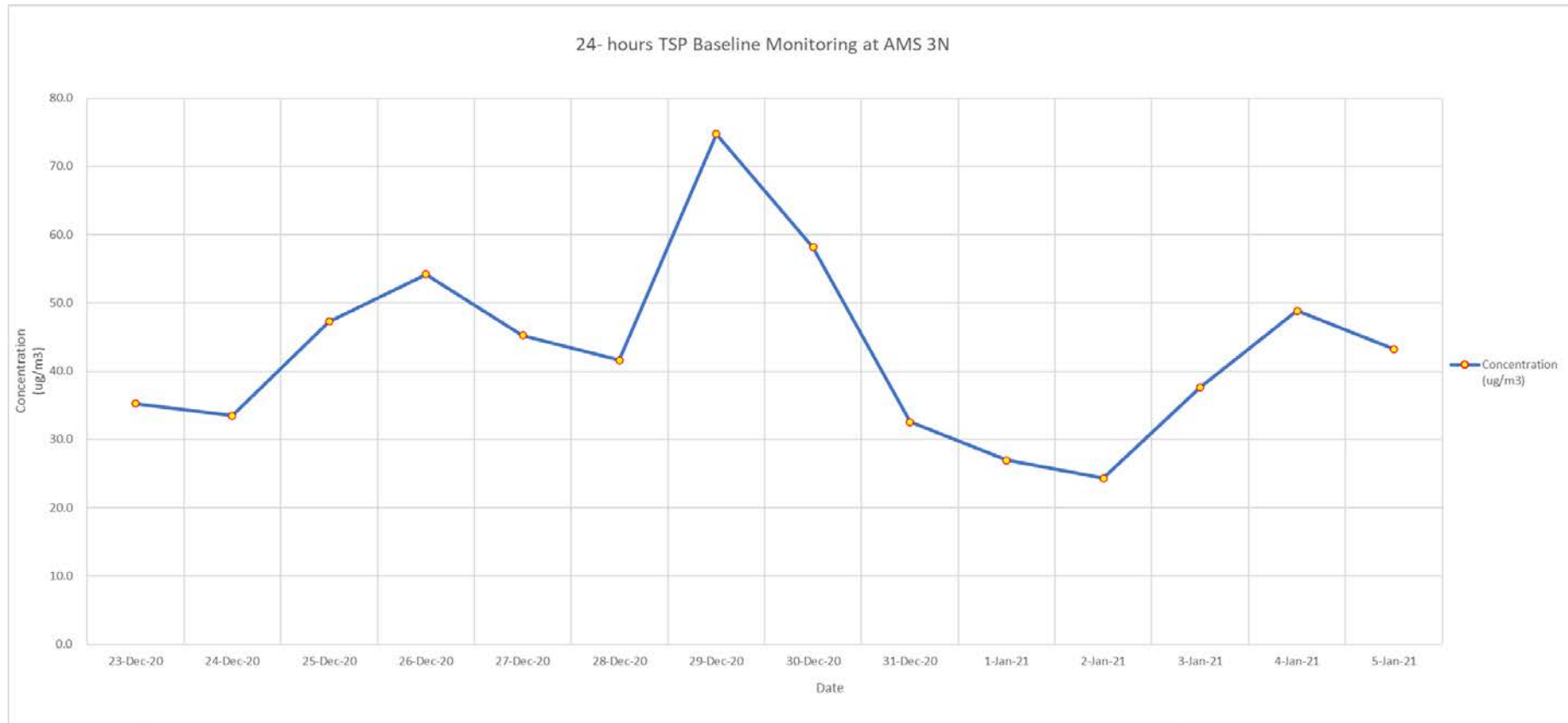
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
AMS1N – 24-hour TSP Baseline Monitoring



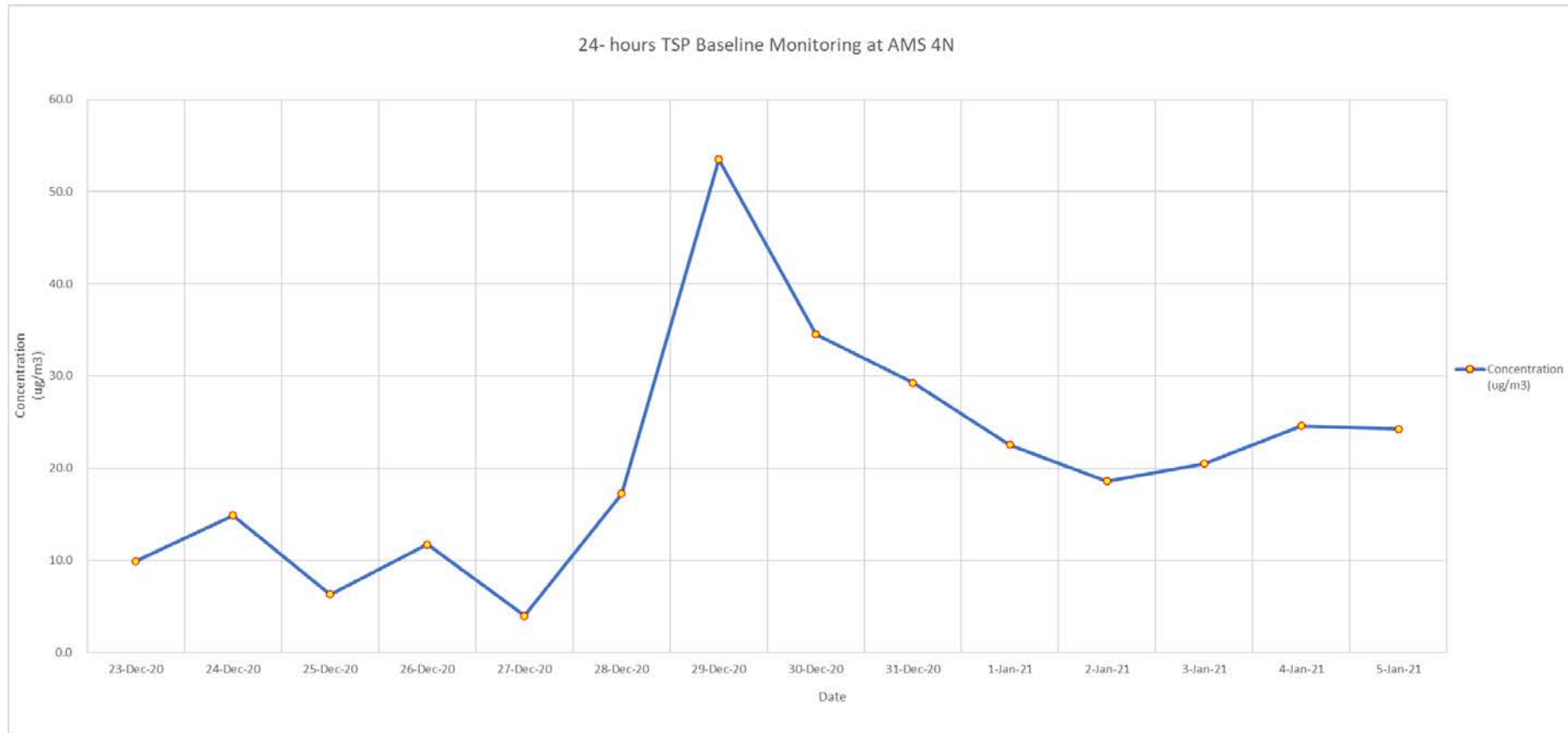
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
AMS2N1 – 24-hour TSP Baseline Monitoring



Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
AMS3N – 24-hour TSP Baseline Monitoring



AMS4N – 24-hour TSP Baseline Monitoring



Appendix 3-6

Event and Action Plan for Air Quality Impact Monitoring

Appendix 3-7 Event and Action Plan for Air Quality Impact Monitoring

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level				
1.Exceedance for one sample	1. Inform IEC, ER and Contractor; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Repeat measurement to confirm finding; 4. 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor	1. Rectify any unacceptable practice; 2. 2. Amend working methods if appropriate.
2.Exceedance for two or more consecutive samples	1. Inform IEC, ER and Contractor; 2. Identify source; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC, ER and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ET/ER on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to 2. ER and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level				
1.Exceedance for one sample	1. Inform IEC, ER, Contractor and EPD; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on remedial actions 3. Submit proposals for remedial actions to IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Amend proposal if appropriate.
2.Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER and Contractor to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 5. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct 6. the Contractor to terminate that portion of work until the exceedance ceases.	1. Take immediate action to avoid further exceedance; 2. Discuss with ET and IEC on remedial actions 3. Submit proposals for remedial actions to ER and IEC within 3 working days of notification; 4. Implement the agreed proposals; 5. Resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance ceases.

Appendix 4-1

Calibration Certificate for Sound Level Meters and Anemometer

Report no.: 203258CA201700(1)

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Level Meter
 Manufacturer : Casella

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	1488270	04228	004030
Equipment ID	N/A		

Next Calibration Date : 26-Aug-2021
 Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)
 Equipment ID. : R-108-1
 Date of Calibration : 27-Aug-2020
 Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
 Method Used : By direct comparison Relative Humidity : <80% R.H.

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.1	2.6 to -0.6
	2000Hz	1.2	2.8 to -0.4
	1000Hz	-0.1	1.1 to -1.1
	500Hz	-3.4	-1.8 to -4.6
	250Hz	-8.8	-7.2 to -10.0
	125Hz	-16.2	-14.6 to -17.6
	63Hz	-26.2	-24.7 to -27.7
	31.5Hz	-39.1	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.1	± 0.6
	104dB-114dB	0.0	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast
4. The UUT complies with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 3-9-2020 Certified by : K. T. Young Date : 3-9-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 203258CA202302(1)

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Level Meter

Manufacturer : Casella

Model No. :

Meter	Microphone	Preamplifier
CEL-63X	CE-251	CEL-495
1488295	02795	003538

Serial No. :

Equipment ID : N-54

Next Calibration Date : 29-Oct-2021

Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Details of Reference Equipment -

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. : R-108-1

Date of Calibration : 30-Oct-2020

Calibration Location : Calibration Laboratory of FTS

Ambient Temperature : 20±2 °C

Method Used : By direct comparison

Relative Humidity : <80% R.H.

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.0	2.6 to -0.6
	2000Hz	-0.2	2.8 to -0.4
	1000Hz	0.0	1.1 to -1.1
	500Hz	-3.3	-1.8 to -4.6
	250Hz	-8.7	-7.2 to -10.0
	125Hz	-16.2	-14.6 to -17.6
	63Hz	-26.1	-24.7 to -27.7
	31.5Hz	-38.7	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.1	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast.
4. The UUT does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 4-11-2020 Certified by : K.T. Leung Date : 4-11-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA202302(2)

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CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Level Meter

Manufacturer : Casella

Model No. : CEL-63X

Serial No. : 1488304

Equipment ID : N-62

Next Calibration Date : 29-Oct-2021

Specification Limit : EN 61672-1: 2003 Class 1

Meter	Microphone	Preamplifier
CEL-63X	CE-251	CEL-495
1488304	03876	002752

Laboratory Information

Details of Reference Equipment -

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. : R-108-1

Date of Calibration : 30-Oct-2020

Calibration Location : Calibration Laboratory of FTS

Ambient Temperature : 20±2 °C

Method Used : By direct comparison

Relative Humidity : <80% R.H.

Calibration Results :

Parameters	Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	1.5
	2000Hz	1.3
	1000Hz	-0.1
	500Hz	-3.5
	250Hz	-8.9
	125Hz	-16.4
	63Hz	-26.4
	31.5Hz	-39.4
Differential level linearity	94dB-104dB	0.0
	104dB-114dB	0.0

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighting is fast.
4. The UUT does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the values at the time of the test and any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Checked by : Leung Kwok Tai Date : 4-11-2020 Certified by : K.T. Leung Date : 4-11-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report no.: 183057CA200482(1)

CALIBRATION CERTIFICATE OF SOUND LEVEL METER

Client Supplied Information

Client : Fugro Technical Services Limited

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Sound Level Meter

Manufacturer : Casella

	Meter	Microphone	Preamplifier
Model No.	CEL-63X	CE-251	CEL-495
Serial No.	0873573	01163	004064

Equipment ID : N-43

Next Calibration Date : 22-Mar-2021

Specification Limit : EN 61672-1: 2003 Class 1

Laboratory Information

Description : B & K Acoustic Multifunction Calibrator 4226 (Traditional free field setting)

Equipment ID. : R-108-1

Date of Calibration : 23-Mar-2020 Ambient Temperature : 22 °C

Calibration Location : Calibration Laboratory of FTS

Method Used : By direct comparison

Calibration Results :

Parameters		Mean Value (dB)	Specification Limit(dB)
A-weighting frequency response	4000Hz	2.0	2.6 to -0.6
	2000Hz	1.5	2.8 to -0.4
	1000Hz	-0.1	1.1 to -1.1
	500Hz	-3.6	-1.8 to -4.6
	250Hz	-8.9	-7.2 to -10.0
	125Hz	-16.3	-14.6 to -17.6
	63Hz	-26.4	-24.7 to -27.7
	31.5Hz	-39.4	-37.4 to -41.4
Differential level linearity	94dB-104dB	0.0	± 0.6
	104dB-114dB	0.1	± 0.6

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. For calibration: Reference SPL are 94, 104 & 114dB, range setting is 20-140dB & time weighing is fast
4. The equipment does comply with EN 61672-1: 2003 Class 1 sound level meter for the above measurement.
5. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 27-3-2020 Certified by : K.T. Leung Date : 27-3-2020
 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

** End of Report **

Report no.: 203258CA202146(2)

Page 1 of 1

CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Client Supplied Information**Details of Unit Under Test, UUT**

Description : Sound Calibrator
Manufacturer : Casella (Model CEL-120/1)
Serial No. : 2383707
Equipment ID : N/A
Next Calibration Date : 14-Oct-2021
Specification Limit : EN 60942: 2003 Class 1

Laboratory Information**Details of Calibration Equipment**

Description : Reference Sound level meter
Equipment ID. : R-119-1
Date of Calibration : 15-Oct-2020
Calibration Location : Calibration Laboratory of FTS Ambient Temperature : 20±2 °C
Method Used : By direct comparison Relative Humidity : <80% R.H.

Calibration Results :

Parameters (Setting of UUT)	Mean Value (error of measurement)	Specification Limit(dB)
94dB	-0.1 dB	±0.4dB
114dB	-0.2 dB	

Remarks :

1. The equipment used in this calibration is traceable to recognized National Standards.
2. The mean value is the average of four measurements.
3. The unit under test complies with the specification limit.
4. The values given in this Calibration Certificate only relate to the unit-under-test and the values measured at the time of the test. Any uncertainties quoted will not include allowances for the environmental changes, variation and shock during transportation, or the capability of any other laboratory to repeat the measurement.

Checked by : William Date : 19-10-2020 Certified by : K.T. Leung Date : 19-10-2020
CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Report No. : 183057CA200894(4)

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CALIBRATION CERTIFICATE OF ANEMOMETER**Client Supplied Information**

Client : Fugro Technical Services Ltd.

Project : Calibration Services

Details of Unit Under Test, UUT

Description : Anemometer

Manufacturer : Benetech

Model No. : GM816

Serial No. : N/A

Equipment ID. : WS-09

Next Calibration Date : 14-Jun-2021

Laboratory Information

Details of Reference Equipment –

Description : Reference Anemometer

Equipment ID. : R-101-4

Date of Calibration : 15-Jun-2020 Ambient Temperature : 22 °C

Calibration Location : Calibration Laboratory of FTS

Method Used : R-C-279

Calibration Results :

Reference Reading (m/s)	UUT Reading (m/s)	Error (m/s)
1.93	2.0	0.1
4.00	4.0	0.0
6.10	6.0	-0.1
8.48	8.0	-0.5
10.81	10.0	-0.8

Remark :

1. The equipment being used in this calibration is traceable to recognized National Standards.
2. The reported readings in this calibration are an average from 10 trials.

Checked by : William Date : 20-6-2020 Certified by : L.T. Young Date : 20-6-2020
CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager)

**** End of Report ****

Appendix 4-2

Noise Baseline Monitoring Results

Baseline Monitoring Results (NMS-1N)

Remark: ^ With +3 dB (A) – Free Field Correction				
Start Date & Time	^Corrected L _{eq} (30mins) (dB(A))	L _{eq} (30mins) (dB(A))	L ₁₀ (dB(A))	L ₉₀ (dB(A))
2020/12/23 07:00	60.5	57.5	58.0	56.5
2020/12/23 07:30	61.5	58.5	58.0	57.0
2020/12/23 08:00	61.1	58.1	59.0	57.0
2020/12/23 08:30	60.7	57.7	58.5	57.0
2020/12/23 09:00	60.5	57.5	58.0	57.0
2020/12/23 09:30	60.3	57.3	57.5	57.0
2020/12/23 10:00	60.3	57.3	58.0	57.0
2020/12/23 10:30	60.6	57.6	58.5	57.0
2020/12/23 11:00	60.6	57.6	58.5	57.0
2020/12/23 11:30	65.2	62.2	64.0	54.0
2020/12/23 12:00	58.9	55.9	57.0	53.5
2020/12/23 12:30	64.4	61.4	65.0	55.0
2020/12/23 13:00	61.3	58.3	59.0	56.0
2020/12/23 13:30	61.1	58.1	59.0	55.5
2020/12/23 14:00	60.7	57.7	58.5	56.0
2020/12/23 14:30	61.4	58.4	58.5	56.0
2020/12/23 15:00	61.4	58.4	59.5	56.0
2020/12/23 15:30	60.7	57.7	58.5	56.0
2020/12/23 16:00	60.9	57.9	58.0	56.0
2020/12/23 16:30	61.6	58.6	59.5	56.0
2020/12/23 17:00	63.6	60.6	62.5	56.5
2020/12/23 17:30	60.6	57.6	58.5	56.0
2020/12/23 18:00	60.2	57.2	58.0	56.0
2020/12/23 18:30	60.5	57.5	58.0	56.0
2020/12/24 07:00	67.1	64.1	65.0	57.0
2020/12/24 07:30	60.7	57.7	58.0	57.0
2020/12/24 08:00	60.7	57.7	58.5	57.0
2020/12/24 08:30	62.1	59.1	60.0	57.0
2020/12/24 09:00	60.4	57.4	58.0	56.5
2020/12/24 09:30	61.7	58.7	57.5	56.5
2020/12/24 10:00	62.3	59.3	58.5	57.0
2020/12/24 10:30	60.3	57.3	57.5	57.0

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Baseline Noise Monitoring Data

2020/12/24 11:00	60.2	57.2	57.5	57.0
2020/12/24 11:30	60.3	57.3	57.5	57.0
2020/12/24 12:00	60.5	57.5	57.5	57.0
2020/12/24 12:30	60.3	57.3	57.5	57.0
2020/12/24 13:00	60.4	57.4	58.0	57.0
2020/12/24 13:30	60.8	57.8	58.0	57.0
2020/12/24 14:00	60.4	57.4	57.5	57.0
2020/12/24 14:30	60.3	57.3	57.5	57.0
2020/12/24 15:00	60.3	57.3	57.5	57.0
2020/12/24 15:30	60.2	57.2	57.5	57.0
2020/12/24 16:00	60.3	57.3	57.5	57.0
2020/12/24 16:30	60.4	57.4	57.5	57.0
2020/12/24 17:00	60.2	57.2	57.5	57.0
2020/12/24 17:30	60.7	57.7	58.0	57.0
2020/12/24 18:00	60.6	57.6	58.0	57.0
2020/12/24 18:30	60.6	57.6	58.0	56.5
2020/12/25 07:00	62.2	59.2	60.0	57.5
2020/12/25 07:30	62.5	59.5	60.0	58.0
2020/12/25 08:00	62.2	59.2	60.0	58.0
2020/12/25 08:30	62.4	59.4	60.0	58.0
2020/12/25 09:00	65.0	62.0	62.5	58.5
2020/12/25 09:30	62.1	59.1	60.0	57.0
2020/12/25 10:00	61.6	58.6	59.5	56.5
2020/12/25 10:30	61.8	58.8	60.0	57.0
2020/12/25 11:00	61.6	58.6	59.5	57.0
2020/12/25 11:30	63.5	60.5	63.5	58.0
2020/12/25 12:00	63.0	60.0	63.5	57.5
2020/12/25 12:30	62.1	59.1	60.0	58.0
2020/12/25 13:00	62.2	59.2	60.0	58.0
2020/12/25 13:30	62.2	59.2	60.0	58.0
2020/12/25 14:00	62.1	59.1	60.0	58.0
2020/12/25 14:30	62.1	59.1	60.0	58.0
2020/12/25 15:00	62.0	59.0	60.0	58.5
2020/12/25 15:30	62.1	59.1	59.5	58.5
2020/12/25 16:00	61.8	58.8	59.5	57.5
2020/12/25 16:30	61.8	58.8	59.5	58.0
2020/12/25 17:00	62.1	59.1	59.5	58.0

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2020/12/25 17:30	62.1	59.1	59.5	58.0
2020/12/25 18:00	62.1	59.1	59.5	58.5
2020/12/25 18:30	61.9	58.9	59.5	58.5
2020/12/26 07:00	63.3	60.3	60.5	60.0
2020/12/26 07:30	63.3	60.3	60.5	60.0
2020/12/26 08:00	63.3	60.3	61.0	60.0
2020/12/26 08:30	63.3	60.3	60.5	60.0
2020/12/26 09:00	63.3	60.3	60.5	60.0
2020/12/26 09:30	63.4	60.4	61.0	59.5
2020/12/26 10:00	63.2	60.2	60.5	60.0
2020/12/26 10:30	62.9	59.9	60.5	58.5
2020/12/26 11:00	62.3	59.3	60.0	58.0
2020/12/26 11:30	62.7	59.7	60.5	58.5
2020/12/26 12:00	62.8	59.8	60.5	58.5
2020/12/26 12:30	63.0	60.0	60.5	59.0
2020/12/26 13:00	63.1	60.1	60.5	59.5
2020/12/26 13:30	63.1	60.1	60.5	59.5
2020/12/26 14:00	63.0	60.0	60.5	59.5
2020/12/26 14:30	62.9	59.9	60.5	59.5
2020/12/26 15:00	62.8	59.8	60.0	59.5
2020/12/26 15:30	62.8	59.8	60.5	59.5
2020/12/26 16:00	62.9	59.9	60.5	59.5
2020/12/26 16:30	62.9	59.9	60.5	59.5
2020/12/26 17:00	62.8	59.8	60.0	59.5
2020/12/26 17:30	62.9	59.9	60.5	59.5
2020/12/26 18:00	63.1	60.1	60.5	59.5
2020/12/26 18:30	63.1	60.1	60.5	59.5
2020/12/27 07:00	63.3	60.3	60.0	53.5
2020/12/27 07:30	61.9	58.9	59.5	56.0
2020/12/27 08:00	60.5	57.5	59.0	40.0
2020/12/27 08:30	55.1	52.1	56.0	38.5
2020/12/27 09:00	54.3	51.3	52.5	35.5
2020/12/27 09:30	57.1	54.1	56.0	39.0
2020/12/27 10:00	56.0	53.0	54.5	51.5
2020/12/27 10:30	56.5	53.5	54.5	51.0
2020/12/27 11:00	56.0	53.0	54.5	51.5
2020/12/27 11:30	56.4	53.4	55.0	52.0

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2020/12/27 12:00	56.8	53.8	55.0	52.0
2020/12/27 12:30	56.6	53.6	54.0	52.0
2020/12/27 13:00	55.8	52.8	53.5	52.0
2020/12/27 13:30	56.0	53.0	53.5	52.0
2020/12/27 14:00	55.5	52.5	53.0	52.0
2020/12/27 14:30	57.8	54.8	57.5	52.5
2020/12/27 15:00	59.8	56.8	57.5	55.0
2020/12/27 15:30	60.3	57.3	58.0	56.5
2020/12/27 16:00	60.0	57.0	57.5	55.5
2020/12/27 16:30	59.3	56.3	57.5	55.0
2020/12/27 17:00	58.9	55.9	57.0	54.5
2020/12/27 17:30	58.9	55.9	57.0	54.5
2020/12/27 18:00	58.6	55.6	56.5	55.0
2020/12/27 18:30	58.8	55.8	57.0	55.0
2020/12/28 07:00	64.7	61.7	62.5	55.0
2020/12/28 07:30	62.0	59.0	61.0	55.0
2020/12/28 08:00	60.1	57.1	58.5	54.5
2020/12/28 08:30	63.2	60.2	60.5	54.0
2020/12/28 09:00	59.2	56.2	57.5	53.0
2020/12/28 09:30	59.5	56.5	57.5	53.5
2020/12/28 10:00	58.7	55.7	56.5	52.0
2020/12/28 10:30	58.8	55.8	56.5	52.0
2020/12/28 11:00	56.4	53.4	54.5	51.0
2020/12/28 11:30	55.7	52.7	54.0	50.0
2020/12/28 12:00	57.1	54.1	56.0	50.0
2020/12/28 12:30	56.2	53.2	55.0	50.0
2020/12/28 13:00	55.7	52.7	54.5	49.5
2020/12/28 13:30	53.3	50.3	50.5	49.5
2020/12/28 14:00	54.5	51.5	52.0	49.5
2020/12/28 14:30	53.1	50.1	50.5	49.5
2020/12/28 15:00	53.0	50.0	50.5	49.5
2020/12/28 15:30	52.8	49.8	50.5	49.5
2020/12/28 16:00	53.0	50.0	50.5	49.5
2020/12/28 16:30	52.9	49.9	50.5	49.5
2020/12/28 17:00	52.8	49.8	50.0	49.5
2020/12/28 17:30	52.9	49.9	50.5	49.5
2020/12/28 18:00	53.2	50.2	50.5	49.5

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2020/12/28 18:30	52.9	49.9	50.5	49.5
2020/12/29 07:00	55.4	52.4	54.0	49.5
2020/12/29 07:30	55.2	52.2	53.0	49.5
2020/12/29 08:00	58.8	55.8	59.0	49.5
2020/12/29 08:30	64.9	61.9	65.0	51.0
2020/12/29 09:00	67.5	64.5	66.0	58.5
2020/12/29 09:30	61.6	58.6	59.5	50.0
2020/12/29 10:00	55.9	52.9	54.5	49.5
2020/12/29 10:30	68.8	65.8	62.5	50.0
2020/12/29 11:00	62.4	59.4	59.0	49.5
2020/12/29 11:30	58.9	55.9	56.0	49.5
2020/12/29 12:00	59.1	56.1	58.0	52.0
2020/12/29 12:30	59.3	56.3	56.5	52.0
2020/12/29 13:00	60.1	57.1	58.5	53.0
2020/12/29 13:30	61.3	58.3	59.0	53.5
2020/12/29 14:00	59.8	56.8	58.5	53.5
2020/12/29 14:30	61.5	58.5	60.5	54.0
2020/12/29 15:00	59.3	56.3	58.0	53.5
2020/12/29 15:30	63.7	60.7	60.0	53.5
2020/12/29 16:00	59.2	56.2	58.0	53.0
2020/12/29 16:30	59.3	56.3	58.0	53.0
2020/12/29 17:00	58.9	55.9	57.5	53.0
2020/12/29 17:30	57.5	54.5	56.0	52.5
2020/12/29 18:00	57.5	54.5	56.0	52.5
2020/12/29 18:30	56.9	53.9	55.0	52.5
2020/12/30 07:00	63.6	60.6	62.5	57.0
2020/12/30 07:30	61.8	58.8	61.0	55.0
2020/12/30 08:00	61.5	58.5	60.5	55.0
2020/12/30 08:30	60.9	57.9	59.5	54.0
2020/12/30 09:00	61.5	58.5	61.0	54.0
2020/12/30 09:30	62.6	59.6	61.5	54.5
2020/12/30 10:00	64.1	61.1	64.0	55.5
2020/12/30 10:30	69.8	66.8	66.5	59.5
2020/12/30 11:00	64.3	61.3	63.0	58.0
2020/12/30 11:30	64.8	61.8	62.5	58.5
2020/12/30 12:00	63.1	60.1	61.0	58.0
2020/12/30 12:30	65.8	62.8	64.0	58.5

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2020/12/30 13:00	63.9	60.9	62.0	58.5
2020/12/30 13:30	64.0	61.0	62.0	58.5
2020/12/30 14:00	67.1	64.1	62.5	59.5
2020/12/30 14:30	66.1	63.1	63.0	59.5
2020/12/30 15:00	65.7	62.7	63.5	60.0
2020/12/30 15:30	64.2	61.2	62.0	59.5
2020/12/30 16:00	70.8	67.8	65.5	60.0
2020/12/30 16:30	65.3	62.3	63.5	60.0
2020/12/30 17:00	68.3	65.3	62.5	60.0
2020/12/30 17:30	65.1	62.1	62.5	60.0
2020/12/30 18:00	64.3	61.3	62.5	60.0
2020/12/30 18:30	63.9	60.9	62.0	59.5
2020/12/31 07:00	65.3	62.3	64.0	59.5
2020/12/31 07:30	64.7	61.7	63.0	59.5
2020/12/31 08:00	65.3	62.3	63.5	60.0
2020/12/31 08:30	64.7	61.7	63.0	60.5
2020/12/31 09:00	64.5	61.5	62.5	60.0
2020/12/31 09:30	64.6	61.6	62.5	60.5
2020/12/31 10:00	64.7	61.7	62.5	60.0
2020/12/31 10:30	64.2	61.2	62.0	60.0
2020/12/31 11:00	66.5	63.5	63.0	60.0
2020/12/31 11:30	67.5	64.5	62.0	60.0
2020/12/31 12:00	71.1	68.1	63.5	60.0
2020/12/31 12:30	64.0	61.0	61.5	54.5
2020/12/31 13:00	63.8	60.8	61.0	55.0
2020/12/31 13:30	59.4	56.4	57.5	53.0
2020/12/31 14:00	58.6	55.6	57.0	52.5
2020/12/31 14:30	61.0	58.0	59.0	52.5
2020/12/31 15:00	58.3	55.3	56.5	53.0
2020/12/31 15:30	59.0	56.0	57.0	53.5
2020/12/31 16:00	59.9	56.9	58.5	54.0
2020/12/31 16:30	62.5	59.5	59.0	53.5
2020/12/31 17:00	66.3	63.3	58.0	54.5
2020/12/31 17:30	59.4	56.4	57.5	55.0
2020/12/31 18:00	59.4	56.4	57.0	55.0
2020/12/31 18:30	60.0	57.0	57.5	55.5
2021/1/1 07:00	57.1	54.1	55.0	53.0

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Baseline Noise Monitoring Data

2021/1/1 07:30	58.4	55.4	56.0	53.0
2021/1/1 08:00	59.6	56.6	57.0	53.0
2021/1/1 08:30	59.3	56.3	58.0	53.0
2021/1/1 09:00	64.5	61.5	58.0	53.0
2021/1/1 09:30	58.8	55.8	57.5	53.0
2021/1/1 10:00	63.9	60.9	60.0	53.0
2021/1/1 10:30	72.0	69.0	62.0	55.0
2021/1/1 11:00	59.3	56.3	57.5	54.5
2021/1/1 11:30	59.1	56.1	57.5	54.5
2021/1/1 12:00	62.5	59.5	58.5	54.5
2021/1/1 12:30	61.2	58.2	60.0	55.0
2021/1/1 13:00	62.8	59.8	62.0	55.5
2021/1/1 13:30	62.3	59.3	60.0	57.0
2021/1/1 14:00	63.5	60.5	62.0	57.5
2021/1/1 14:30	62.1	59.1	60.5	56.5
2021/1/1 15:00	60.8	57.8	59.5	54.5
2021/1/1 15:30	64.8	61.8	63.0	54.5
2021/1/1 16:00	62.9	59.9	60.5	56.0
2021/1/1 16:30	65.5	62.5	61.5	56.5
2021/1/1 17:00	68.1	65.1	59.5	55.0
2021/1/1 17:30	66.8	63.8	61.5	58.5
2021/1/1 18:00	62.5	59.5	60.0	58.5
2021/1/1 18:30	62.5	59.5	60.0	58.5
2021/1/2 07:00	61.8	58.8	59.0	58.0
2021/1/2 07:30	62.9	59.9	59.5	58.0
2021/1/2 08:00	64.0	61.0	61.0	58.5
2021/1/2 08:30	62.7	59.7	60.0	58.5
2021/1/2 09:00	62.3	59.3	60.0	58.0
2021/1/2 09:30	61.6	58.6	59.0	57.5
2021/1/2 10:00	67.3	64.3	63.5	49.5
2021/1/2 10:30	64.6	61.6	64.5	53.5
2021/1/2 11:00	61.7	58.7	59.0	57.0
2021/1/2 11:30	62.6	59.6	60.5	57.0
2021/1/2 12:00	60.6	57.6	58.5	56.5
2021/1/2 12:30	61.1	58.1	59.5	56.5
2021/1/2 13:00	65.9	62.9	60.0	56.5
2021/1/2 13:30	61.4	58.4	59.5	56.5

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2021/1/2 14:00	62.3	59.3	60.5	57.0
2021/1/2 14:30	62.1	59.1	60.0	57.0
2021/1/2 15:00	62.8	59.8	61.0	57.5
2021/1/2 15:30	62.2	59.2	60.5	57.5
2021/1/2 16:00	67.3	64.3	61.0	57.0
2021/1/2 16:30	63.4	60.4	61.5	57.5
2021/1/2 17:00	63.1	60.1	61.5	57.5
2021/1/2 17:30	61.7	58.7	59.5	57.5
2021/1/2 18:00	61.4	58.4	58.5	57.5
2021/1/2 18:30	61.0	58.0	58.5	57.5
2021/1/3 07:00	61.1	58.1	58.0	57.0
2021/1/3 07:30	67.9	64.9	65.0	57.5
2021/1/3 08:00	68.3	65.3	60.0	57.0
2021/1/3 08:30	61.2	58.2	59.0	57.0
2021/1/3 09:00	61.4	58.4	58.5	57.0
2021/1/3 09:30	66.2	63.2	61.0	57.0
2021/1/3 10:00	64.8	61.8	63.0	56.5
2021/1/3 10:30	63.2	60.2	62.0	57.0
2021/1/3 11:00	67.4	64.4	63.5	57.0
2021/1/3 11:30	63.0	60.0	60.5	56.5
2021/1/3 12:00	62.3	59.3	60.0	56.5
2021/1/3 12:30	61.3	58.3	59.0	57.0
2021/1/3 13:00	61.0	58.0	58.5	57.5
2021/1/3 13:30	61.0	58.0	58.0	57.5
2021/1/3 14:00	60.8	57.8	58.0	57.5
2021/1/3 14:30	61.2	58.2	58.5	57.5
2021/1/3 15:00	60.9	57.9	58.5	57.5
2021/1/3 15:30	60.5	57.5	58.0	57.0
2021/1/3 16:00	61.0	58.0	58.0	57.0
2021/1/3 16:30	60.8	57.8	58.0	57.0
2021/1/3 17:00	60.3	57.3	57.5	57.0
2021/1/3 17:30	60.3	57.3	57.5	57.0
2021/1/3 18:00	60.4	57.4	58.0	57.0
2021/1/3 18:30	60.6	57.6	58.0	57.5
2021/1/4 07:00	63.2	60.2	60.0	57.5
2021/1/4 07:30	55.3	52.3	54.0	39.5
2021/1/4 08:00	61.2	58.2	57.5	52.5

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2021/1/4 08:30	58.2	55.2	55.5	51.5
2021/1/4 09:00	59.5	56.5	56.5	52.0
2021/1/4 09:30	59.1	56.1	56.0	51.5
2021/1/4 10:00	59.1	56.1	56.5	52.5
2021/1/4 10:30	65.6	62.6	59.5	52.5
2021/1/4 11:00	67.7	64.7	63.5	53.5
2021/1/4 11:30	67.9	64.9	62.0	53.5
2021/1/4 12:00	58.9	55.9	56.0	53.0
2021/1/4 12:30	57.8	54.8	55.5	53.0
2021/1/4 13:00	58.6	55.6	56.5	53.5
2021/1/4 13:30	58.4	55.4	55.5	53.5
2021/1/4 14:00	58.0	55.0	55.0	53.5
2021/1/4 14:30	58.1	55.1	55.5	53.5
2021/1/4 15:00	57.7	54.7	55.0	53.5
2021/1/4 15:30	57.8	54.8	55.5	53.0
2021/1/4 16:00	57.6	54.6	55.0	53.0
2021/1/4 16:30	57.1	54.1	54.5	52.0
2021/1/4 17:00	57.2	54.2	55.0	52.5
2021/1/4 17:30	57.8	54.8	55.5	53.0
2021/1/4 18:00	58.3	55.3	55.5	53.5
2021/1/4 18:30	57.4	54.4	55.0	53.5
2021/1/5 07:00	57.6	54.6	56.0	51.5
2021/1/5 07:30	59.1	56.1	56.5	51.5
2021/1/5 08:00	61.2	58.2	59.0	52.0
2021/1/5 08:30	61.6	58.6	59.0	51.5
2021/1/5 09:00	62.3	59.3	57.5	51.5
2021/1/5 09:30	56.9	53.9	55.0	51.0
2021/1/5 10:00	64.1	61.1	59.0	51.5
2021/1/5 10:30	58.6	55.6	56.5	52.0
2021/1/5 11:00	60.4	57.4	59.5	42.0
2021/1/5 11:30	58.1	55.1	57.0	50.5
2021/1/5 12:00	63.3	60.3	60.0	53.0
2021/1/5 12:30	59.8	56.8	58.0	53.0
2021/1/5 13:00	59.9	56.9	58.0	53.0
2021/1/5 13:30	58.2	55.2	57.0	52.5
2021/1/5 14:00	65.6	62.6	58.5	53.0
2021/1/5 14:30	59.5	56.5	58.0	53.0

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2021/1/5 15:00	60.6	57.6	58.5	53.5
2021/1/5 15:30	68.7	65.7	61.0	54.0
2021/1/5 16:00	63.7	60.7	60.5	54.0
2021/1/5 16:30	69.1	66.1	63.5	54.5
2021/1/5 17:00	69.2	66.2	61.0	57.5
2021/1/5 17:30	62.7	59.7	60.5	58.0
2021/1/5 18:00	66.9	63.9	61.0	58.0
2021/1/5 18:30	62.3	59.3	59.5	58.0

Average for corrected Leq dB(A)	62.7
Max	72.0
Min	52.8

Baseline Monitoring Results (NMS-2N1)

Remark: ^ With +3 dB (A) – Free Field Correction				
Start Date & Time	^Corrected L _{eq} (30mins) (dB(A))	L _{eq} (30mins) (dB(A))	L ₁₀ (dB(A))	L ₉₀ (dB(A))
2020/12/23 07:00	60.0	57.0	58.0	55.5
2020/12/23 07:30	59.8	56.8	57.5	55.5
2020/12/23 08:00	59.4	56.4	57.0	55.5
2020/12/23 08:30	59.3	56.3	57.0	55.5
2020/12/23 09:00	59.2	56.2	57.0	55.5
2020/12/23 09:30	59.0	56.0	56.5	55.5
2020/12/23 10:00	58.8	55.8	56.5	55.5
2020/12/23 10:30	58.7	55.7	56.0	55.5
2020/12/23 11:00	58.9	55.9	56.5	55.5
2020/12/23 11:30	58.7	55.7	56.0	55.5
2020/12/23 12:00	58.8	55.8	56.0	55.5
2020/12/23 12:30	58.8	55.8	56.0	55.5
2020/12/23 13:00	58.8	55.8	56.5	55.5
2020/12/23 13:30	58.9	55.9	56.5	55.5
2020/12/23 14:00	59.1	56.1	56.5	55.0
2020/12/23 14:30	58.7	55.7	56.5	55.0
2020/12/23 15:00	58.7	55.7	56.5	55.0
2020/12/23 15:30	59.0	56.0	56.5	55.0
2020/12/23 16:00	59.5	56.5	57.0	55.5
2020/12/23 16:30	59.6	56.6	57.5	56.0
2020/12/23 17:00	59.8	56.8	58.0	55.5
2020/12/23 17:30	60.0	57.0	58.5	55.5
2020/12/23 18:00	60.0	57.0	58.0	55.5
2020/12/23 18:30	60.7	57.7	59.0	55.5
2020/12/24 07:00	64.8	61.8	62.0	60.5
2020/12/24 07:30	63.8	60.8	61.5	60.5
2020/12/24 08:00	63.8	60.8	61.0	60.5
2020/12/24 08:30	63.8	60.8	61.0	60.0
2020/12/24 09:00	63.7	60.7	61.0	60.0
2020/12/24 09:30	63.8	60.8	61.5	60.5
2020/12/24 10:00	63.8	60.8	61.0	60.5
2020/12/24 10:30	63.7	60.7	61.0	60.0
2020/12/24 11:00	63.7	60.7	61.0	60.0

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Baseline Noise Monitoring Data

2020/12/24 11:30	64.1	61.1	61.5	60.0
2020/12/24 12:00	64.2	61.2	62.0	60.0
2020/12/24 12:30	62.4	59.4	60.0	58.5
2020/12/24 13:00	62.7	59.7	60.0	59.0
2020/12/24 13:30	62.2	59.2	59.5	58.5
2020/12/24 14:00	62.3	59.3	60.0	58.5
2020/12/24 14:30	62.5	59.5	60.0	59.0
2020/12/24 15:00	62.4	59.4	60.0	59.0
2020/12/24 15:30	62.0	59.0	59.5	58.0
2020/12/24 16:00	61.5	58.5	59.0	58.0
2020/12/24 16:30	61.7	58.7	60.0	57.5
2020/12/24 17:00	62.3	59.3	60.5	58.0
2020/12/24 17:30	62.9	59.9	61.0	58.0
2020/12/24 18:00	62.5	59.5	61.0	58.0
2020/12/24 18:30	63.3	60.3	61.5	58.0
2020/12/25 07:00	61.7	58.7	59.0	58.0
2020/12/25 07:30	61.6	58.6	59.0	58.0
2020/12/25 08:00	61.9	58.9	59.0	58.0
2020/12/25 08:30	61.6	58.6	59.5	58.0
2020/12/25 09:00	61.4	58.4	59.0	57.5
2020/12/25 09:30	61.3	58.3	59.0	57.5
2020/12/25 10:00	61.3	58.3	59.0	57.5
2020/12/25 10:30	61.9	58.9	59.5	58.0
2020/12/25 11:00	61.0	58.0	59.0	46.5
2020/12/25 11:30	52.6	49.6	53.0	42.0
2020/12/25 12:00	56.6	53.6	57.5	43.5
2020/12/25 12:30	60.0	57.0	58.0	55.5
2020/12/25 13:00	60.2	57.2	58.0	56.0
2020/12/25 13:30	60.7	57.7	59.0	56.0
2020/12/25 14:00	61.2	58.2	59.5	56.5
2020/12/25 14:30	61.7	58.7	59.5	57.5
2020/12/25 15:00	61.6	58.6	59.0	57.5
2020/12/25 15:30	61.2	58.2	59.0	57.5
2020/12/25 16:00	61.5	58.5	59.0	57.5
2020/12/25 16:30	62.2	59.2	60.5	58.0
2020/12/25 17:00	62.5	59.5	60.0	58.0
2020/12/25 17:30	62.8	59.8	60.5	58.0

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Baseline Noise Monitoring Data

2020/12/25 18:00	61.9	58.9	59.5	58.0
2020/12/25 18:30	61.7	58.7	59.5	58.0
2020/12/26 07:00	62.5	59.5	60.0	59.0
2020/12/26 07:30	62.3	59.3	60.0	58.5
2020/12/26 08:00	62.3	59.3	60.0	58.5
2020/12/26 08:30	62.5	59.5	60.0	59.0
2020/12/26 09:00	62.4	59.4	60.0	59.0
2020/12/26 09:30	62.5	59.5	60.0	59.0
2020/12/26 10:00	62.7	59.7	60.0	59.0
2020/12/26 10:30	62.5	59.5	60.0	59.0
2020/12/26 11:00	62.4	59.4	60.0	59.0
2020/12/26 11:30	62.3	59.3	60.0	59.0
2020/12/26 12:00	62.3	59.3	59.5	59.0
2020/12/26 12:30	62.6	59.6	60.0	59.0
2020/12/26 13:00	62.6	59.6	60.0	59.0
2020/12/26 13:30	63.0	60.0	61.0	59.0
2020/12/26 14:00	62.2	59.2	60.0	58.5
2020/12/26 14:30	61.8	58.8	59.5	58.5
2020/12/26 15:00	61.7	58.7	59.0	58.5
2020/12/26 15:30	62.0	59.0	59.5	58.5
2020/12/26 16:00	62.2	59.2	60.0	58.5
2020/12/26 16:30	62.0	59.0	59.5	58.5
2020/12/26 17:00	62.1	59.1	59.5	58.5
2020/12/26 17:30	62.3	59.3	60.0	58.5
2020/12/26 18:00	62.1	59.1	60.0	58.5
2020/12/26 18:30	62.1	59.1	59.5	58.5
2020/12/27 07:00	60.5	57.5	58.5	56.0
2020/12/27 07:30	61.7	58.7	60.5	56.5
2020/12/27 08:00	62.0	59.0	60.0	57.0
2020/12/27 08:30	61.7	58.7	60.5	46.5
2020/12/27 09:00	48.1	45.1	48.0	38.0
2020/12/27 09:30	46.1	43.1	45.5	36.0
2020/12/27 10:00	56.7	53.7	59.0	37.0
2020/12/27 10:30	59.1	56.1	56.5	55.5
2020/12/27 11:00	60.7	57.7	59.5	56.0
2020/12/27 11:30	62.3	59.3	60.5	57.5
2020/12/27 12:00	63.2	60.2	61.0	59.5

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Baseline Noise Monitoring Data

2020/12/27 12:30	63.2	60.2	61.0	59.0
2020/12/27 13:00	63.5	60.5	61.0	59.5
2020/12/27 13:30	63.1	60.1	61.0	59.0
2020/12/27 14:00	63.1	60.1	61.0	59.5
2020/12/27 14:30	62.8	59.8	60.5	59.0
2020/12/27 15:00	62.7	59.7	60.5	59.0
2020/12/27 15:30	62.9	59.9	60.5	59.0
2020/12/27 16:00	63.1	60.1	61.0	59.0
2020/12/27 16:30	63.3	60.3	61.0	59.5
2020/12/27 17:00	63.4	60.4	61.0	59.5
2020/12/27 17:30	63.5	60.5	61.0	60.0
2020/12/27 18:00	63.6	60.6	61.0	60.0
2020/12/27 18:30	63.7	60.7	61.0	60.0
2020/12/28 07:00	61.7	58.7	60.0	57.0
2020/12/28 07:30	61.6	58.6	60.0	57.0
2020/12/28 08:00	61.3	58.3	59.5	57.0
2020/12/28 08:30	61.1	58.1	59.0	57.0
2020/12/28 09:00	61.2	58.2	59.5	57.0
2020/12/28 09:30	61.4	58.4	59.5	57.0
2020/12/28 10:00	60.8	57.8	58.5	57.0
2020/12/28 10:30	60.6	57.6	58.5	56.5
2020/12/28 11:00	60.6	57.6	58.5	56.5
2020/12/28 11:30	60.9	57.9	59.0	56.5
2020/12/28 12:00	61.4	58.4	59.5	57.0
2020/12/28 12:30	61.8	58.8	59.5	57.5
2020/12/28 13:00	61.0	58.0	59.0	56.5
2020/12/28 13:30	60.9	57.9	59.0	56.5
2020/12/28 14:00	60.5	57.5	58.5	56.5
2020/12/28 14:30	67.6	64.6	62.0	56.0
2020/12/28 15:00	69.9	66.9	71.5	57.5
2020/12/28 15:30	63.9	60.9	60.5	58.0
2020/12/28 16:00	63.2	60.2	60.5	58.0
2020/12/28 16:30	62.6	59.6	60.5	57.5
2020/12/28 17:00	62.2	59.2	60.5	57.5
2020/12/28 17:30	61.9	58.9	60.0	57.0
2020/12/28 18:00	61.2	58.2	59.5	56.5
2020/12/28 18:30	61.4	58.4	60.0	57.0

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Baseline Noise Monitoring Data

2020/12/29 07:00	57.5	54.5	55.0	53.5
2020/12/29 07:30	56.8	53.8	54.5	53.0
2020/12/29 08:00	57.1	54.1	54.5	53.0
2020/12/29 08:30	56.8	53.8	54.5	53.0
2020/12/29 09:00	57.3	54.3	54.5	53.0
2020/12/29 09:30	56.9	53.9	54.5	53.0
2020/12/29 10:00	57.1	54.1	55.0	53.0
2020/12/29 10:30	56.7	53.7	54.0	53.0
2020/12/29 11:00	56.6	53.6	54.0	53.0
2020/12/29 11:30	60.0	57.0	57.0	53.5
2020/12/29 12:00	60.1	57.1	56.0	53.0
2020/12/29 12:30	58.7	55.7	56.5	53.5
2020/12/29 13:00	58.6	55.6	57.0	53.5
2020/12/29 13:30	58.1	55.1	56.0	53.5
2020/12/29 14:00	58.4	55.4	56.5	53.5
2020/12/29 14:30	58.4	55.4	56.0	53.5
2020/12/29 15:00	57.6	54.6	55.5	53.5
2020/12/29 15:30	58.9	55.9	57.0	54.0
2020/12/29 16:00	58.9	55.9	57.5	54.0
2020/12/29 16:30	59.4	56.4	59.0	54.0
2020/12/29 17:00	57.8	54.8	56.0	53.5
2020/12/29 17:30	57.2	54.2	55.0	53.5
2020/12/29 18:00	57.4	54.4	55.0	53.5
2020/12/29 18:30	57.6	54.6	54.5	53.5
2020/12/30 07:00	63.5	60.5	61.0	60.0
2020/12/30 07:30	63.3	60.3	61.0	59.5
2020/12/30 08:00	63.2	60.2	61.0	59.5
2020/12/30 08:30	63.3	60.3	61.0	59.5
2020/12/30 09:00	63.3	60.3	61.0	59.5
2020/12/30 09:30	63.4	60.4	61.0	59.5
2020/12/30 10:00	63.9	60.9	61.5	59.5
2020/12/30 10:30	63.2	60.2	61.0	59.5
2020/12/30 11:00	63.3	60.3	61.0	59.5
2020/12/30 11:30	64.7	61.7	63.0	60.0
2020/12/30 12:00	63.8	60.8	61.5	59.5
2020/12/30 12:30	63.3	60.3	61.0	59.5
2020/12/30 13:00	63.5	60.5	61.0	59.5

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Baseline Noise Monitoring Data

2020/12/30 13:30	63.2	60.2	61.0	59.5
2020/12/30 14:00	63.3	60.3	61.0	59.5
2020/12/30 14:30	63.3	60.3	61.0	59.5
2020/12/30 15:00	63.7	60.7	61.5	60.0
2020/12/30 15:30	63.6	60.6	61.0	60.0
2020/12/30 16:00	63.6	60.6	61.0	60.0
2020/12/30 16:30	63.2	60.2	61.0	59.5
2020/12/30 17:00	64.7	61.7	61.0	59.0
2020/12/30 17:30	62.7	59.7	60.5	58.5
2020/12/30 18:00	63.1	60.1	60.5	58.5
2020/12/30 18:30	62.8	59.8	61.0	58.5
2020/12/31 07:00	59.0	56.0	57.0	55.0
2020/12/31 07:30	59.0	56.0	57.0	54.5
2020/12/31 08:00	59.8	56.8	58.0	55.0
2020/12/31 08:30	59.2	56.2	57.0	54.5
2020/12/31 09:00	59.4	56.4	57.5	55.0
2020/12/31 09:30	60.2	57.2	59.0	55.0
2020/12/31 10:00	61.7	58.7	60.5	55.0
2020/12/31 10:30	62.5	59.5	61.0	55.0
2020/12/31 11:00	61.5	58.5	60.0	55.0
2020/12/31 11:30	61.8	58.8	60.5	55.0
2020/12/31 12:00	61.5	58.5	61.0	55.0
2020/12/31 12:30	61.7	58.7	61.0	55.0
2020/12/31 13:00	59.3	56.3	57.0	54.5
2020/12/31 13:30	58.7	55.7	56.5	54.5
2020/12/31 14:00	59.3	56.3	56.5	54.5
2020/12/31 14:30	58.5	55.5	56.5	54.5
2020/12/31 15:00	58.3	55.3	56.0	54.5
2020/12/31 15:30	58.3	55.3	56.0	54.5
2020/12/31 16:00	58.9	55.9	56.5	54.5
2020/12/31 16:30	58.9	55.9	56.0	54.5
2020/12/31 17:00	59.1	56.1	56.5	54.5
2020/12/31 17:30	59.2	56.2	57.0	54.5
2020/12/31 18:00	59.0	56.0	56.5	55.0
2020/12/31 18:30	58.8	55.8	57.0	54.5
2021/1/1 07:00	69.2	66.2	69.5	56.5
2021/1/1 07:30	69.1	66.1	69.0	56.0

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Baseline Noise Monitoring Data

2021/1/1 08:00	66.8	63.8	66.5	55.0
2021/1/1 08:30	64.2	61.2	63.0	55.5
2021/1/1 09:00	61.7	58.7	60.5	55.5
2021/1/1 09:30	62.0	59.0	60.5	56.0
2021/1/1 10:00	62.6	59.6	61.0	58.0
2021/1/1 10:30	63.7	60.7	62.0	59.0
2021/1/1 11:00	64.0	61.0	62.0	59.5
2021/1/1 11:30	69.5	66.5	62.0	59.5
2021/1/1 12:00	65.7	62.7	63.5	59.5
2021/1/1 12:30	64.5	61.5	63.0	60.0
2021/1/1 13:00	64.0	61.0	62.0	60.0
2021/1/1 13:30	63.7	60.7	61.5	60.0
2021/1/1 14:00	63.6	60.6	61.0	60.0
2021/1/1 14:30	63.3	60.3	61.0	59.5
2021/1/1 15:00	63.3	60.3	61.0	59.5
2021/1/1 15:30	63.1	60.1	60.5	59.5
2021/1/1 16:00	63.2	60.2	61.0	59.5
2021/1/1 16:30	63.2	60.2	60.5	59.5
2021/1/1 17:00	63.3	60.3	61.0	59.5
2021/1/1 17:30	63.3	60.3	61.0	59.5
2021/1/1 18:00	63.3	60.3	61.0	60.0
2021/1/1 18:30	63.4	60.4	61.0	60.0
2021/1/2 07:00	57.9	54.9	56.0	53.5
2021/1/2 07:30	58.4	55.4	56.5	53.5
2021/1/2 08:00	57.6	54.6	55.5	53.5
2021/1/2 08:30	58.4	55.4	56.5	53.5
2021/1/2 09:00	59.0	56.0	57.5	53.5
2021/1/2 09:30	59.2	56.2	58.0	53.5
2021/1/2 10:00	62.8	59.8	62.5	54.0
2021/1/2 10:30	61.2	58.2	59.5	51.0
2021/1/2 11:00	60.6	57.6	59.0	55.0
2021/1/2 11:30	61.9	58.9	60.0	56.5
2021/1/2 12:00	61.9	58.9	60.0	57.0
2021/1/2 12:30	62.9	59.9	61.0	57.5
2021/1/2 13:00	62.4	59.4	60.5	57.5
2021/1/2 13:30	61.7	58.7	61.0	50.5
2021/1/2 14:00	56.8	53.8	57.0	42.5

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Baseline Noise Monitoring Data

2021/1/2 14:30	59.5	56.5	58.5	53.5
2021/1/2 15:00	59.4	56.4	58.0	54.0
2021/1/2 15:30	59.2	56.2	58.5	54.5
2021/1/2 16:00	63.1	60.1	57.5	54.5
2021/1/2 16:30	58.5	55.5	56.5	53.5
2021/1/2 17:00	58.3	55.3	56.5	53.5
2021/1/2 17:30	57.4	54.4	55.5	53.0
2021/1/2 18:00	58.2	55.2	56.0	53.5
2021/1/2 18:30	58.4	55.4	56.5	53.5
2021/1/3 07:00	62.4	59.4	61.5	56.0
2021/1/3 07:30	60.7	57.7	59.0	55.5
2021/1/3 08:00	60.6	57.6	59.0	55.5
2021/1/3 08:30	60.1	57.1	58.5	55.5
2021/1/3 09:00	60.4	57.4	59.0	55.5
2021/1/3 09:30	58.8	55.8	57.0	54.5
2021/1/3 10:00	59.6	56.6	57.5	54.5
2021/1/3 10:30	59.7	56.7	57.5	55.5
2021/1/3 11:00	60.3	57.3	58.5	55.5
2021/1/3 11:30	65.1	62.1	59.5	55.5
2021/1/3 12:00	59.5	56.5	57.5	55.5
2021/1/3 12:30	59.1	56.1	56.5	55.5
2021/1/3 13:00	59.1	56.1	57.0	55.5
2021/1/3 13:30	59.0	56.0	56.5	55.5
2021/1/3 14:00	59.2	56.2	56.5	55.5
2021/1/3 14:30	59.2	56.2	56.5	55.5
2021/1/3 15:00	59.0	56.0	56.5	55.5
2021/1/3 15:30	59.0	56.0	56.5	55.5
2021/1/3 16:00	58.9	55.9	56.5	55.5
2021/1/3 16:30	59.7	56.7	57.5	55.5
2021/1/3 17:00	59.6	56.6	57.5	55.5
2021/1/3 17:30	60.0	57.0	58.0	55.5
2021/1/3 18:00	59.7	56.7	57.5	55.5
2021/1/3 18:30	60.1	57.1	58.0	55.5
2021/1/4 07:00	61.0	58.0	59.0	56.0
2021/1/4 07:30	63.1	60.1	59.5	55.5
2021/1/4 08:00	64.0	61.0	58.5	56.0
2021/1/4 08:30	64.0	61.0	60.5	56.5

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Baseline Noise Monitoring Data

2021/1/4 09:00	63.8	60.8	59.5	57.5
2021/1/4 09:30	62.4	59.4	59.5	57.5
2021/1/4 10:00	61.8	58.8	59.5	58.0
2021/1/4 10:30	60.5	57.5	59.0	55.5
2021/1/4 11:00	61.2	58.2	59.5	55.5
2021/1/4 11:30	60.4	57.4	58.5	55.5
2021/1/4 12:00	60.0	57.0	58.0	54.5
2021/1/4 12:30	60.8	57.8	59.5	54.5
2021/1/4 13:00	59.0	56.0	57.0	54.5
2021/1/4 13:30	58.3	55.3	56.0	54.5
2021/1/4 14:00	58.2	55.2	56.0	54.5
2021/1/4 14:30	58.3	55.3	56.5	54.0
2021/1/4 15:00	57.6	54.6	55.0	54.0
2021/1/4 15:30	57.8	54.8	55.5	54.0
2021/1/4 16:00	57.9	54.9	55.5	54.0
2021/1/4 16:30	58.4	55.4	56.5	54.0
2021/1/4 17:00	64.4	61.4	58.0	54.5
2021/1/4 17:30	59.7	56.7	58.5	54.5
2021/1/4 18:00	59.5	56.5	58.5	54.5
2021/1/4 18:30	59.2	56.2	58.5	54.5
2021/1/5 07:00	58.5	55.5	56.0	54.5
2021/1/5 07:30	58.9	55.9	57.0	55.0
2021/1/5 08:00	59.2	56.2	56.5	55.0
2021/1/5 08:30	59.1	56.1	57.0	55.0
2021/1/5 09:00	60.2	57.2	59.0	55.0
2021/1/5 09:30	59.3	56.3	57.5	55.0
2021/1/5 10:00	59.4	56.4	57.5	55.0
2021/1/5 10:30	59.2	56.2	57.0	55.0
2021/1/5 11:00	61.3	58.3	56.5	54.5
2021/1/5 11:30	58.8	55.8	57.5	54.5
2021/1/5 12:00	67.3	64.3	60.0	54.5
2021/1/5 12:30	58.7	55.7	56.5	54.0
2021/1/5 13:00	57.7	54.7	55.5	54.0
2021/1/5 13:30	57.9	54.9	55.5	54.0
2021/1/5 14:00	58.2	55.2	55.5	54.0
2021/1/5 14:30	58.0	55.0	55.0	54.0
2021/1/5 15:00	58.0	55.0	55.5	54.0

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2021/1/5 15:30	58.6	55.6	56.5	54.5
2021/1/5 16:00	59.2	56.2	57.5	54.5
2021/1/5 16:30	59.5	56.5	57.5	54.5
2021/1/5 17:00	60.4	57.4	59.5	54.0
2021/1/5 17:30	59.9	56.9	59.5	54.0
2021/1/5 18:00	60.1	57.1	59.0	55.0
2021/1/5 18:30	60.8	57.8	59.5	55.0
Average for corrected Leq dB(A)	61.8			
Max	69.9			
Min	46.1			

Baseline Monitoring Results (NMS-3N)

Remark: ^ With +3 dB (A) – Free Field Correction				
Start Date & Time	^Corrected L _{eq} (30mins) (dB(A))	L _{eq} (30mins) (dB(A))	L ₁₀ (dB(A))	L ₉₀ (dB(A))
2020/12/23 07:00	67.1	64.1	64.5	63.5
2020/12/23 07:30	67.1	64.1	64.5	63.5
2020/12/23 08:00	67.1	64.1	64.5	63.5
2020/12/23 08:30	66.9	63.9	64.5	63.5
2020/12/23 09:00	66.8	63.8	64.0	63.5
2020/12/23 09:30	66.9	63.9	64.0	63.5
2020/12/23 10:00	66.9	63.9	64.0	63.5
2020/12/23 10:30	66.7	63.7	64.0	63.5
2020/12/23 11:00	66.9	63.9	64.5	63.5
2020/12/23 11:30	67.1	64.1	64.5	63.5
2020/12/23 12:00	66.9	63.9	64.5	63.5
2020/12/23 12:30	67.1	64.1	64.5	63.5
2020/12/23 13:00	67.1	64.1	64.5	63.5
2020/12/23 13:30	67.2	64.2	64.5	64.0
2020/12/23 14:00	67.1	64.1	64.5	64.0
2020/12/23 14:30	67.2	64.2	64.5	64.0
2020/12/23 15:00	67.3	64.3	64.5	64.0
2020/12/23 15:30	67.4	64.4	65.0	64.0
2020/12/23 16:00	67.3	64.3	65.0	64.0
2020/12/23 16:30	67.3	64.3	65.0	64.0
2020/12/23 17:00	67.4	64.4	65.0	63.5
2020/12/23 17:30	67.1	64.1	64.5	63.5
2020/12/23 18:00	67.1	64.1	64.5	63.5
2020/12/23 18:30	67.2	64.2	64.5	63.5
2020/12/24 07:00	66.7	63.7	64.0	63.5
2020/12/24 07:30	66.7	63.7	64.0	63.5
2020/12/24 08:00	67.0	64.0	64.5	63.5
2020/12/24 08:30	65.4	62.4	64.0	51.0
2020/12/24 09:00	64.7	61.7	62.0	61.5
2020/12/24 09:30	64.5	61.5	62.0	61.0
2020/12/24 10:00	64.7	61.7	62.0	61.0
2020/12/24 10:30	64.5	61.5	62.0	61.0
2020/12/24 11:00	64.3	61.3	61.5	61.0

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Baseline Noise Monitoring Data

2020/12/24 11:30	64.2	61.2	61.5	61.0
2020/12/24 12:00	65.4	62.4	63.5	60.5
2020/12/24 12:30	65.5	62.5	63.5	61.5
2020/12/24 13:00	65.4	62.4	63.5	61.5
2020/12/24 13:30	65.1	62.1	62.5	61.5
2020/12/24 14:00	65.1	62.1	62.5	61.5
2020/12/24 14:30	64.7	61.7	62.5	61.0
2020/12/24 15:00	64.5	61.5	62.0	61.0
2020/12/24 15:30	64.4	61.4	62.0	61.0
2020/12/24 16:00	64.3	61.3	62.0	61.0
2020/12/24 16:30	64.3	61.3	61.5	61.0
2020/12/24 17:00	64.4	61.4	62.0	61.0
2020/12/24 17:30	64.6	61.6	62.0	61.0
2020/12/24 18:00	64.6	61.6	62.0	61.0
2020/12/24 18:30	64.8	61.8	62.5	61.5
2020/12/25 07:00	65.9	62.9	64.0	61.5
2020/12/25 07:30	66.1	63.1	64.5	62.0
2020/12/25 08:00	66.1	63.1	64.0	62.0
2020/12/25 08:30	66.1	63.1	64.5	62.0
2020/12/25 09:00	66.2	63.2	64.5	62.0
2020/12/25 09:30	66.0	63.0	64.0	61.5
2020/12/25 10:00	66.0	63.0	64.0	62.0
2020/12/25 10:30	66.7	63.7	65.0	62.0
2020/12/25 11:00	67.0	64.0	66.0	62.0
2020/12/25 11:30	64.6	61.6	65.0	55.0
2020/12/25 12:00	66.5	63.5	66.5	56.0
2020/12/25 12:30	67.4	64.4	66.5	62.0
2020/12/25 13:00	68.1	65.1	67.5	62.0
2020/12/25 13:30	67.2	64.2	66.5	62.0
2020/12/25 14:00	67.9	64.9	67.0	62.0
2020/12/25 14:30	67.9	64.9	67.0	62.0
2020/12/25 15:00	67.4	64.4	66.5	62.0
2020/12/25 15:30	67.0	64.0	66.0	62.0
2020/12/25 16:00	67.0	64.0	66.0	62.0
2020/12/25 16:30	67.0	64.0	66.0	62.0
2020/12/25 17:00	66.9	63.9	65.5	62.0
2020/12/25 17:30	65.6	62.6	64.0	61.5

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Baseline Noise Monitoring Data

2020/12/25 18:00	65.3	62.3	63.5	61.5
2020/12/25 18:30	65.2	62.2	63.0	61.5
2020/12/26 07:00	65.5	62.5	63.0	62.0
2020/12/26 07:30	65.4	62.4	63.0	62.0
2020/12/26 08:00	65.5	62.5	63.5	62.0
2020/12/26 08:30	65.4	62.4	63.0	62.0
2020/12/26 09:00	65.3	62.3	63.0	61.5
2020/12/26 09:30	65.4	62.4	63.0	61.5
2020/12/26 10:00	64.7	61.7	62.5	61.0
2020/12/26 10:30	64.7	61.7	62.0	61.0
2020/12/26 11:00	64.7	61.7	62.0	61.5
2020/12/26 11:30	64.7	61.7	62.0	61.5
2020/12/26 12:00	64.6	61.6	62.0	61.5
2020/12/26 12:30	64.6	61.6	62.0	61.0
2020/12/26 13:00	64.5	61.5	62.0	61.0
2020/12/26 13:30	64.5	61.5	62.0	61.0
2020/12/26 14:00	64.5	61.5	62.0	61.0
2020/12/26 14:30	64.4	61.4	62.0	61.0
2020/12/26 15:00	64.4	61.4	62.0	61.0
2020/12/26 15:30	64.4	61.4	61.5	61.0
2020/12/26 16:00	64.5	61.5	62.0	61.0
2020/12/26 16:30	64.4	61.4	62.0	61.0
2020/12/26 17:00	64.4	61.4	62.0	61.0
2020/12/26 17:30	64.5	61.5	62.0	61.0
2020/12/26 18:00	64.5	61.5	62.0	61.0
2020/12/26 18:30	64.6	61.6	62.0	61.5
2020/12/27 07:00	66.4	63.4	64.0	63.0
2020/12/27 07:30	66.3	63.3	63.5	63.0
2020/12/27 08:00	66.1	63.1	63.5	63.0
2020/12/27 08:30	66.8	63.8	64.5	63.5
2020/12/27 09:00	66.8	63.8	64.5	63.0
2020/12/27 09:30	66.5	63.5	64.0	63.0
2020/12/27 10:00	65.6	62.6	63.5	52.0
2020/12/27 10:30	66.3	63.3	63.5	63.0
2020/12/27 11:00	66.3	63.3	63.5	63.0
2020/12/27 11:30	66.2	63.2	63.5	63.0
2020/12/27 12:00	66.2	63.2	63.5	63.0

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/27 12:30	66.2	63.2	63.5	63.0
2020/12/27 13:00	66.2	63.2	63.5	63.0
2020/12/27 13:30	66.2	63.2	63.5	63.0
2020/12/27 14:00	66.2	63.2	63.5	63.0
2020/12/27 14:30	66.1	63.1	63.5	63.0
2020/12/27 15:00	66.1	63.1	63.5	63.0
2020/12/27 15:30	66.3	63.3	63.5	63.0
2020/12/27 16:00	66.2	63.2	63.5	63.0
2020/12/27 16:30	66.3	63.3	63.5	63.0
2020/12/27 17:00	66.3	63.3	63.5	63.0
2020/12/27 17:30	66.4	63.4	64.0	63.0
2020/12/27 18:00	66.4	63.4	63.5	63.0
2020/12/27 18:30	66.3	63.3	63.5	63.0
2020/12/28 07:00	64.6	61.6	63.0	60.0
2020/12/28 07:30	64.4	61.4	63.0	60.0
2020/12/28 08:00	65.4	62.4	64.0	60.5
2020/12/28 08:30	66.2	63.2	65.0	61.0
2020/12/28 09:00	65.8	62.8	65.0	60.5
2020/12/28 09:30	65.6	62.6	64.5	60.5
2020/12/28 10:00	65.5	62.5	64.5	60.5
2020/12/28 10:30	65.8	62.8	64.5	60.5
2020/12/28 11:00	65.6	62.6	64.5	60.5
2020/12/28 11:30	65.5	62.5	64.5	60.5
2020/12/28 12:00	65.6	62.6	65.0	60.5
2020/12/28 12:30	65.4	62.4	64.5	60.5
2020/12/28 13:00	65.3	62.3	64.5	60.5
2020/12/28 13:30	65.2	62.2	64.0	60.0
2020/12/28 14:00	65.4	62.4	64.5	60.0
2020/12/28 14:30	65.3	62.3	64.5	60.0
2020/12/28 15:00	64.5	61.5	63.0	60.0
2020/12/28 15:30	63.9	60.9	62.5	59.5
2020/12/28 16:00	66.5	63.5	61.5	59.5
2020/12/28 16:30	63.4	60.4	61.5	59.5
2020/12/28 17:00	63.4	60.4	61.5	59.5
2020/12/28 17:30	63.9	60.9	62.0	59.5
2020/12/28 18:00	64.0	61.0	62.5	59.5
2020/12/28 18:30	63.4	60.4	61.5	59.5

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/29 07:00	62.5	59.5	60.5	59.0
2020/12/29 07:30	62.6	59.6	60.5	59.0
2020/12/29 08:00	62.8	59.8	60.5	59.0
2020/12/29 08:30	64.1	61.1	62.0	59.0
2020/12/29 09:00	62.9	59.9	61.0	59.0
2020/12/29 09:30	63.0	60.0	61.0	59.0
2020/12/29 10:00	62.8	59.8	60.5	59.0
2020/12/29 10:30	62.7	59.7	60.5	59.0
2020/12/29 11:00	62.9	59.9	61.0	59.0
2020/12/29 11:30	62.4	59.4	60.0	59.0
2020/12/29 12:00	62.3	59.3	60.0	58.5
2020/12/29 12:30	62.3	59.3	60.5	58.0
2020/12/29 13:00	62.5	59.5	60.5	58.0
2020/12/29 13:30	61.8	58.8	59.5	58.0
2020/12/29 14:00	61.9	58.9	60.0	58.0
2020/12/29 14:30	62.1	59.1	60.0	58.0
2020/12/29 15:00	62.6	59.6	60.5	58.5
2020/12/29 15:30	62.0	59.0	60.0	58.0
2020/12/29 16:00	62.1	59.1	60.0	58.0
2020/12/29 16:30	64.3	61.3	63.0	59.0
2020/12/29 17:00	62.9	59.9	61.5	58.5
2020/12/29 17:30	62.7	59.7	61.0	58.5
2020/12/29 18:00	62.8	59.8	61.5	58.5
2020/12/29 18:30	62.6	59.6	61.0	58.5
2020/12/30 07:00	62.6	59.6	61.0	58.0
2020/12/30 07:30	62.5	59.5	61.0	58.0
2020/12/30 08:00	62.3	59.3	60.5	58.0
2020/12/30 08:30	62.2	59.2	60.5	58.0
2020/12/30 09:00	62.4	59.4	60.5	58.0
2020/12/30 09:30	62.2	59.2	60.5	58.0
2020/12/30 10:00	62.1	59.1	60.5	58.0
2020/12/30 10:30	62.1	59.1	60.0	58.0
2020/12/30 11:00	61.9	58.9	60.0	58.0
2020/12/30 11:30	62.0	59.0	60.0	58.0
2020/12/30 12:00	61.6	58.6	59.5	57.5
2020/12/30 12:30	61.6	58.6	59.5	57.5
2020/12/30 13:00	61.6	58.6	59.5	57.5

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/30 13:30	65.3	62.3	64.5	58.5
2020/12/30 14:00	63.5	60.5	62.5	58.0
2020/12/30 14:30	65.4	62.4	63.5	58.5
2020/12/30 15:00	64.9	61.9	64.0	58.0
2020/12/30 15:30	65.3	62.3	64.0	58.0
2020/12/30 16:00	67.1	64.1	65.5	58.5
2020/12/30 16:30	63.1	60.1	61.0	59.5
2020/12/30 17:00	63.1	60.1	61.0	59.5
2020/12/30 17:30	63.6	60.6	62.0	59.5
2020/12/30 18:00	62.8	59.8	60.5	59.0
2020/12/30 18:30	62.7	59.7	60.5	59.0
2020/12/31 07:00	64.7	61.7	63.5	60.0
2020/12/31 07:30	65.0	62.0	64.0	60.0
2020/12/31 08:00	64.9	61.9	63.5	60.5
2020/12/31 08:30	64.9	61.9	63.5	60.5
2020/12/31 09:00	64.8	61.8	63.5	60.5
2020/12/31 09:30	64.4	61.4	63.0	60.0
2020/12/31 10:00	66.5	63.5	65.5	61.0
2020/12/31 10:30	65.7	62.7	64.5	60.5
2020/12/31 11:00	63.2	60.2	61.5	59.0
2020/12/31 11:30	63.1	60.1	61.0	59.0
2020/12/31 12:00	63.9	60.9	62.0	59.0
2020/12/31 12:30	65.0	62.0	64.0	59.0
2020/12/31 13:00	66.0	63.0	65.5	59.5
2020/12/31 13:30	63.9	60.9	62.5	59.5
2020/12/31 14:00	63.9	60.9	62.5	59.5
2020/12/31 14:30	64.1	61.1	62.5	59.5
2020/12/31 15:00	64.1	61.1	62.5	60.0
2020/12/31 15:30	64.3	61.3	63.0	60.0
2020/12/31 16:00	64.4	61.4	63.0	60.0
2020/12/31 16:30	64.1	61.1	62.5	59.5
2020/12/31 17:00	64.2	61.2	63.0	59.5
2020/12/31 17:30	64.5	61.5	63.0	60.0
2020/12/31 18:00	64.6	61.6	63.5	60.0
2020/12/31 18:30	64.4	61.4	63.0	60.0
2021/1/1 07:00	64.3	61.3	62.5	60.0
2021/1/1 07:30	64.3	61.3	62.5	60.0

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2021/1/1 08:00	64.4	61.4	63.0	60.0
2021/1/1 08:30	63.7	60.7	61.5	59.5
2021/1/1 09:00	63.2	60.2	61.0	59.5
2021/1/1 09:30	63.5	60.5	61.5	59.5
2021/1/1 10:00	63.5	60.5	61.5	59.5
2021/1/1 10:30	63.1	60.1	61.0	59.0
2021/1/1 11:00	63.5	60.5	61.5	59.5
2021/1/1 11:30	63.7	60.7	62.0	59.0
2021/1/1 12:00	62.3	59.3	60.0	58.0
2021/1/1 12:30	62.1	59.1	60.0	58.5
2021/1/1 13:00	62.7	59.7	61.0	58.5
2021/1/1 13:30	63.2	60.2	61.5	59.0
2021/1/1 14:00	63.5	60.5	62.0	59.0
2021/1/1 14:30	63.7	60.7	62.5	59.0
2021/1/1 15:00	63.2	60.2	61.5	58.5
2021/1/1 15:30	63.6	60.6	62.0	58.5
2021/1/1 16:00	63.2	60.2	61.5	59.0
2021/1/1 16:30	63.3	60.3	61.5	59.0
2021/1/1 17:00	63.6	60.6	62.0	59.5
2021/1/1 17:30	63.8	60.8	62.0	59.5
2021/1/1 18:00	63.6	60.6	62.0	59.5
2021/1/1 18:30	63.6	60.6	62.0	59.5
2021/1/2 07:00	64.7	61.7	64.0	58.0
2021/1/2 07:30	64.8	61.8	64.0	58.5
2021/1/2 08:00	66.4	63.4	66.0	59.0
2021/1/2 08:30	67.5	64.5	67.0	59.5
2021/1/2 09:00	62.5	59.5	60.5	58.0
2021/1/2 09:30	62.7	59.7	60.5	58.5
2021/1/2 10:00	62.8	59.8	61.0	58.5
2021/1/2 10:30	62.7	59.7	60.5	59.0
2021/1/2 11:00	62.9	59.9	61.0	58.5
2021/1/2 11:30	61.3	58.3	60.5	55.5
2021/1/2 12:00	59.8	56.8	58.5	54.5
2021/1/2 12:30	60.0	57.0	58.5	55.0
2021/1/2 13:00	61.0	58.0	60.5	55.0
2021/1/2 13:30	60.6	57.6	59.0	55.5
2021/1/2 14:00	61.0	58.0	59.5	55.5

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Baseline Noise Monitoring Data

2021/1/2 14:30	60.6	57.6	59.5	55.5
2021/1/2 15:00	62.7	59.7	60.5	58.5
2021/1/2 15:30	62.2	59.2	60.5	56.5
2021/1/2 16:00	61.1	58.1	60.0	56.0
2021/1/2 16:30	62.0	59.0	61.0	56.5
2021/1/2 17:00	63.9	60.9	63.0	57.5
2021/1/2 17:30	64.1	61.1	63.0	58.0
2021/1/2 18:00	63.7	60.7	62.5	58.0
2021/1/2 18:30	64.9	61.9	62.5	58.0
2021/1/3 07:00	63.6	60.6	62.0	59.0
2021/1/3 07:30	63.5	60.5	62.0	59.0
2021/1/3 08:00	63.5	60.5	62.0	59.0
2021/1/3 08:30	63.7	60.7	62.5	59.0
2021/1/3 09:00	63.4	60.4	62.0	59.0
2021/1/3 09:30	63.5	60.5	62.0	59.0
2021/1/3 10:00	63.2	60.2	61.5	58.5
2021/1/3 10:30	62.9	59.9	61.0	58.5
2021/1/3 11:00	62.5	59.5	60.5	58.5
2021/1/3 11:30	62.4	59.4	60.0	58.5
2021/1/3 12:00	62.0	59.0	59.5	58.0
2021/1/3 12:30	62.1	59.1	60.0	58.0
2021/1/3 13:00	62.0	59.0	60.0	58.0
2021/1/3 13:30	62.1	59.1	60.0	58.0
2021/1/3 14:00	62.1	59.1	59.5	58.0
2021/1/3 14:30	62.3	59.3	60.0	58.5
2021/1/3 15:00	62.2	59.2	60.0	58.5
2021/1/3 15:30	62.0	59.0	59.5	58.5
2021/1/3 16:00	62.0	59.0	59.5	58.5
2021/1/3 16:30	61.7	58.7	59.5	58.0
2021/1/3 17:00	61.8	58.8	59.5	58.0
2021/1/3 17:30	62.2	59.2	60.0	58.0
2021/1/3 18:00	62.1	59.1	60.0	58.0
2021/1/3 18:30	61.5	58.5	59.0	58.0
2021/1/4 07:00	63.4	60.4	62.0	59.0
2021/1/4 07:30	63.7	60.7	62.5	59.0
2021/1/4 08:00	64.0	61.0	63.0	59.0
2021/1/4 08:30	63.8	60.8	62.5	59.0

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Baseline Noise Monitoring Data

2021/1/4 09:00	63.8	60.8	62.5	59.0
2021/1/4 09:30	63.5	60.5	62.0	59.0
2021/1/4 10:00	64.4	61.4	63.0	59.0
2021/1/4 10:30	64.0	61.0	62.5	59.0
2021/1/4 11:00	63.0	60.0	61.5	58.5
2021/1/4 11:30	62.8	59.8	61.0	58.5
2021/1/4 12:00	62.7	59.7	61.0	59.0
2021/1/4 12:30	62.5	59.5	60.5	58.5
2021/1/4 13:00	62.3	59.3	60.0	58.5
2021/1/4 13:30	62.4	59.4	60.0	58.5
2021/1/4 14:00	62.3	59.3	60.0	58.5
2021/1/4 14:30	62.5	59.5	60.5	58.5
2021/1/4 15:00	62.7	59.7	60.5	59.0
2021/1/4 15:30	62.3	59.3	60.0	58.5
2021/1/4 16:00	62.3	59.3	60.0	58.5
2021/1/4 16:30	62.6	59.6	61.0	58.5
2021/1/4 17:00	62.6	59.6	60.5	58.5
2021/1/4 17:30	63.2	60.2	61.5	59.0
2021/1/4 18:00	62.9	59.9	61.0	58.5
2021/1/4 18:30	62.8	59.8	61.0	58.5
2021/1/5 07:00	62.3	59.3	60.0	58.5
2021/1/5 07:30	62.3	59.3	60.5	58.5
2021/1/5 08:00	62.6	59.6	60.5	58.5
2021/1/5 08:30	62.9	59.9	61.5	58.5
2021/1/5 09:00	63.8	60.8	62.5	59.0
2021/1/5 09:30	63.8	60.8	62.5	59.0
2021/1/5 10:00	62.9	59.9	61.5	58.5
2021/1/5 10:30	62.6	59.6	61.0	58.0
2021/1/5 11:00	61.9	58.9	60.0	58.0
2021/1/5 11:30	62.8	59.8	61.5	58.0
2021/1/5 12:00	62.0	59.0	60.0	58.0
2021/1/5 12:30	62.2	59.2	60.5	58.0
2021/1/5 13:00	62.9	59.9	61.5	58.0
2021/1/5 13:30	62.2	59.2	60.5	58.0
2021/1/5 14:00	62.4	59.4	60.5	58.5
2021/1/5 14:30	62.4	59.4	60.5	58.5
2021/1/5 15:00	62.8	59.8	61.0	58.5

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Baseline Noise Monitoring Data

2021/1/5 15:30	62.7	59.7	61.0	58.5
2021/1/5 16:00	62.5	59.5	60.5	58.5
2021/1/5 16:30	62.2	59.2	60.0	58.5
2021/1/5 17:00	62.4	59.4	60.0	59.0
2021/1/5 17:30	62.1	59.1	59.5	58.5
2021/1/5 18:00	62.0	59.0	59.5	58.5
2021/1/5 18:30	62.3	59.3	60.0	58.5
Average for corrected Leq dB(A)	64.6			
Max	68.1			
Min	59.8			

Baseline Monitoring Results (NMS-4N)

Remark: ^ With +3 dB (A) – Free Field Correction				
Start Date & Time	^Corrected L _{eq} (30mins) (dB(A))	L _{eq} (30mins) (dB(A))	L ₁₀ (dB(A))	L ₉₀ (dB(A))
2020/12/23 07:00	52.9	49.9	52.0	47.0
2020/12/23 07:30	55.0	52.0	54.0	49.0
2020/12/23 08:00	56.8	53.8	56.0	51.0
2020/12/23 08:30	57.2	54.2	56.5	51.0
2020/12/23 09:00	56.9	53.9	56.0	51.0
2020/12/23 09:30	58.0	55.0	57.5	52.0
2020/12/23 10:00	59.2	56.2	58.5	53.0
2020/12/23 10:30	60.6	57.6	59.5	55.0
2020/12/23 11:00	59.7	56.7	59.0	53.0
2020/12/23 11:30	59.1	56.1	58.5	52.5
2020/12/23 12:00	60.4	57.4	59.5	54.0
2020/12/23 12:30	58.9	55.9	58.0	52.5
2020/12/23 13:00	60.0	57.0	59.5	53.5
2020/12/23 13:30	59.2	56.2	58.5	52.5
2020/12/23 14:00	59.6	56.6	59.0	53.0
2020/12/23 14:30	59.8	56.8	59.0	53.5
2020/12/23 15:00	59.2	56.2	58.5	52.5
2020/12/23 15:30	59.7	56.7	58.0	50.0
2020/12/23 16:00	57.9	54.9	57.5	51.0
2020/12/23 16:30	56.8	53.8	56.5	49.5
2020/12/23 17:00	55.3	52.3	54.5	48.0
2020/12/23 17:30	55.8	52.8	54.5	48.0
2020/12/23 18:00	53.4	50.4	52.5	46.5
2020/12/23 18:30	57.5	54.5	55.0	47.5
2020/12/24 07:00	54.2	51.2	51.5	50.0
2020/12/24 07:30	54.1	51.1	51.5	50.5
2020/12/24 08:00	53.7	50.7	51.5	50.0
2020/12/24 08:30	53.8	50.8	51.5	50.5
2020/12/24 09:00	53.8	50.8	51.5	50.5
2020/12/24 09:30	53.8	50.8	51.5	50.5
2020/12/24 10:00	53.8	50.8	51.5	50.5
2020/12/24 10:30	53.9	50.9	51.5	50.5
2020/12/24 11:00	53.7	50.7	51.5	50.0

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/24 11:30	53.6	50.6	51.0	50.0
2020/12/24 12:00	53.7	50.7	51.5	50.0
2020/12/24 12:30	53.7	50.7	51.0	50.0
2020/12/24 13:00	53.8	50.8	51.5	50.5
2020/12/24 13:30	54.0	51.0	51.5	50.5
2020/12/24 14:00	56.9	53.9	55.0	50.5
2020/12/24 14:30	54.6	51.6	52.5	50.5
2020/12/24 15:00	55.4	52.4	53.0	50.5
2020/12/24 15:30	54.5	51.5	53.0	49.5
2020/12/24 16:00	54.9	51.9	53.0	50.0
2020/12/24 16:30	54.0	51.0	52.0	50.0
2020/12/24 17:00	55.0	52.0	53.5	50.5
2020/12/24 17:30	55.1	52.1	53.5	50.5
2020/12/24 18:00	55.0	52.0	53.0	50.5
2020/12/24 18:30	54.7	51.7	53.0	50.5
2020/12/25 07:00	44.2	41.2	42.5	38.5
2020/12/25 07:30	44.3	41.3	43.0	39.5
2020/12/25 08:00	51.2	48.2	46.0	39.0
2020/12/25 08:30	45.4	42.4	44.0	39.5
2020/12/25 09:00	45.8	42.8	44.0	39.5
2020/12/25 09:30	48.8	45.8	47.5	41.5
2020/12/25 10:00	47.3	44.3	45.5	41.0
2020/12/25 10:30	46.1	43.1	43.5	41.0
2020/12/25 11:00	46.1	43.1	44.5	41.5
2020/12/25 11:30	46.6	43.6	44.0	41.5
2020/12/25 12:00	49.0	46.0	47.5	43.0
2020/12/25 12:30	48.3	45.3	46.5	44.0
2020/12/25 13:00	48.3	45.3	45.5	44.0
2020/12/25 13:30	48.2	45.2	46.0	44.0
2020/12/25 14:00	48.5	45.5	46.0	44.5
2020/12/25 14:30	47.8	44.8	45.5	42.5
2020/12/25 15:00	46.5	43.5	44.0	42.0
2020/12/25 15:30	46.0	43.0	44.0	41.5
2020/12/25 16:00	47.4	44.4	45.5	43.0
2020/12/25 16:30	46.6	43.6	44.0	42.5
2020/12/25 17:00	49.6	46.6	46.0	42.5
2020/12/25 17:30	54.0	51.0	46.5	42.5

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/25 18:00	45.0	42.0	43.0	41.0
2020/12/25 18:30	45.2	42.2	43.5	41.0
2020/12/26 07:00	56.7	53.7	57.5	41.5
2020/12/26 07:30	56.9	53.9	56.0	41.5
2020/12/26 08:00	59.1	56.1	59.5	42.0
2020/12/26 08:30	58.7	55.7	58.0	39.5
2020/12/26 09:00	55.0	52.0	55.0	42.0
2020/12/26 09:30	57.1	54.1	57.5	41.0
2020/12/26 10:00	56.2	53.2	56.5	39.5
2020/12/26 10:30	59.4	56.4	59.0	41.0
2020/12/26 11:00	54.1	51.1	54.0	36.5
2020/12/26 11:30	45.5	42.5	42.5	36.0
2020/12/26 12:00	42.0	39.0	40.5	35.5
2020/12/26 12:30	43.6	40.6	42.0	36.5
2020/12/26 13:00	48.4	45.4	45.5	37.0
2020/12/26 13:30	44.0	41.0	41.5	37.0
2020/12/26 14:00	46.4	43.4	41.5	37.5
2020/12/26 14:30	46.4	43.4	45.0	39.0
2020/12/26 15:00	45.9	42.9	44.5	39.5
2020/12/26 15:30	46.0	43.0	44.5	40.0
2020/12/26 16:00	45.3	42.3	44.0	39.0
2020/12/26 16:30	46.9	43.9	45.0	42.0
2020/12/26 17:00	46.3	43.3	44.5	40.5
2020/12/26 17:30	44.7	41.7	42.0	38.0
2020/12/26 18:00	43.3	40.3	42.0	36.5
2020/12/26 18:30	41.5	38.5	39.5	36.5
2020/12/27 07:00	54.5	51.5	55.0	41.5
2020/12/27 07:30	57.3	54.3	57.5	43.0
2020/12/27 08:00	56.4	53.4	55.5	42.0
2020/12/27 08:30	53.6	50.6	53.0	40.0
2020/12/27 09:00	52.7	49.7	52.5	39.0
2020/12/27 09:30	47.5	44.5	47.5	36.5
2020/12/27 10:00	47.7	44.7	47.5	37.5
2020/12/27 10:30	47.6	44.6	46.0	37.0
2020/12/27 11:00	51.9	48.9	46.0	38.0
2020/12/27 11:30	47.0	44.0	46.0	37.5
2020/12/27 12:00	50.2	47.2	46.0	38.5

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/27 12:30	44.9	41.9	43.5	38.5
2020/12/27 13:00	46.0	43.0	42.5	38.5
2020/12/27 13:30	45.4	42.4	40.5	36.0
2020/12/27 14:00	39.5	36.5	37.5	35.0
2020/12/27 14:30	41.2	38.2	39.0	34.5
2020/12/27 15:00	45.4	42.4	46.0	34.5
2020/12/27 15:30	38.1	35.1	36.0	34.0
2020/12/27 16:00	40.0	37.0	37.5	35.0
2020/12/27 16:30	41.1	38.1	39.5	35.5
2020/12/27 17:00	42.3	39.3	40.5	36.5
2020/12/27 17:30	41.7	38.7	40.0	37.5
2020/12/27 18:00	41.6	38.6	39.5	37.5
2020/12/27 18:30	41.2	38.2	39.5	37.0
2020/12/28 07:00	62.9	59.9	61.0	58.0
2020/12/28 07:30	61.7	58.7	60.0	56.5
2020/12/28 08:00	60.2	57.2	58.5	55.5
2020/12/28 08:30	58.1	55.1	56.0	53.5
2020/12/28 09:00	57.4	54.4	55.5	52.5
2020/12/28 09:30	56.9	53.9	55.5	52.0
2020/12/28 10:00	56.6	53.6	55.0	51.5
2020/12/28 10:30	56.8	53.8	55.0	51.5
2020/12/28 11:00	57.2	54.2	55.0	51.5
2020/12/28 11:30	56.6	53.6	55.0	51.5
2020/12/28 12:00	56.8	53.8	55.0	51.5
2020/12/28 12:30	56.7	53.7	55.0	51.5
2020/12/28 13:00	56.5	53.5	54.5	51.5
2020/12/28 13:30	56.6	53.6	55.0	52.0
2020/12/28 14:00	56.6	53.6	55.0	52.0
2020/12/28 14:30	56.8	53.8	55.0	52.0
2020/12/28 15:00	56.8	53.8	55.0	52.0
2020/12/28 15:30	56.8	53.8	55.0	52.0
2020/12/28 16:00	56.9	53.9	55.0	52.0
2020/12/28 16:30	57.2	54.2	55.5	52.5
2020/12/28 17:00	57.4	54.4	55.5	52.5
2020/12/28 17:30	56.9	53.9	55.0	52.0
2020/12/28 18:00	56.4	53.4	54.5	51.5
2020/12/28 18:30	56.4	53.4	54.5	51.5

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/29 07:00	59.0	56.0	57.5	54.5
2020/12/29 07:30	58.8	55.8	57.0	54.5
2020/12/29 08:00	58.1	55.1	56.0	54.5
2020/12/29 08:30	57.9	54.9	55.5	54.5
2020/12/29 09:00	59.8	56.8	57.5	54.5
2020/12/29 09:30	59.3	56.3	57.0	54.5
2020/12/29 10:00	58.1	55.1	56.0	54.5
2020/12/29 10:30	58.4	55.4	56.5	54.5
2020/12/29 11:00	58.0	55.0	55.5	54.5
2020/12/29 11:30	58.0	55.0	55.5	54.5
2020/12/29 12:00	59.0	56.0	56.5	55.0
2020/12/29 12:30	58.9	55.9	56.5	55.0
2020/12/29 13:00	58.8	55.8	56.5	55.0
2020/12/29 13:30	59.5	56.5	57.0	55.0
2020/12/29 14:00	59.3	56.3	57.0	55.0
2020/12/29 14:30	60.4	57.4	57.5	55.5
2020/12/29 15:00	59.6	56.6	57.0	56.0
2020/12/29 15:30	60.3	57.3	58.0	56.5
2020/12/29 16:00	60.3	57.3	58.0	56.0
2020/12/29 16:30	60.5	57.5	58.5	55.5
2020/12/29 17:00	60.6	57.6	58.5	55.0
2020/12/29 17:30	60.2	57.2	58.5	55.0
2020/12/29 18:00	59.7	56.7	58.0	55.0
2020/12/29 18:30	59.6	56.6	58.0	55.0
2020/12/30 07:00	67.4	64.4	65.0	58.5
2020/12/30 07:30	64.3	61.3	64.0	58.0
2020/12/30 08:00	63.0	60.0	62.0	57.5
2020/12/30 08:30	61.6	58.6	60.0	56.5
2020/12/30 09:00	61.1	58.1	59.5	56.0
2020/12/30 09:30	61.0	58.0	59.5	56.5
2020/12/30 10:00	61.9	58.9	61.0	57.0
2020/12/30 10:30	63.1	60.1	62.5	57.5
2020/12/30 11:00	64.8	61.8	63.0	57.0
2020/12/30 11:30	61.5	58.5	60.5	54.5
2020/12/30 12:00	58.0	55.0	57.0	52.5
2020/12/30 12:30	57.1	54.1	55.0	52.0
2020/12/30 13:00	56.4	53.4	54.5	52.0

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Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2020/12/30 13:30	58.4	55.4	56.5	52.0
2020/12/30 14:00	57.8	54.8	57.0	52.0
2020/12/30 14:30	57.2	54.2	56.0	52.0
2020/12/30 15:00	57.2	54.2	56.0	52.0
2020/12/30 15:30	58.8	55.8	57.5	51.5
2020/12/30 16:00	58.4	55.4	56.5	51.5
2020/12/30 16:30	57.4	54.4	55.5	52.5
2020/12/30 17:00	56.7	53.7	55.5	52.0
2020/12/30 17:30	57.4	54.4	56.5	52.5
2020/12/30 18:00	59.2	56.2	58.5	53.0
2020/12/30 18:30	57.6	54.6	56.5	52.5
2020/12/31 07:00	56.7	53.7	54.5	53.0
2020/12/31 07:30	57.0	54.0	54.5	53.0
2020/12/31 08:00	56.9	53.9	54.5	53.0
2020/12/31 08:30	57.7	54.7	54.5	53.0
2020/12/31 09:00	57.0	54.0	54.5	53.5
2020/12/31 09:30	56.8	53.8	54.5	53.0
2020/12/31 10:00	56.8	53.8	54.5	53.5
2020/12/31 10:30	56.8	53.8	54.5	53.5
2020/12/31 11:00	57.0	54.0	54.5	53.5
2020/12/31 11:30	56.8	53.8	54.5	53.5
2020/12/31 12:00	57.1	54.1	54.5	53.5
2020/12/31 12:30	57.0	54.0	54.5	53.5
2020/12/31 13:00	57.0	54.0	54.5	53.5
2020/12/31 13:30	58.0	55.0	56.5	53.0
2020/12/31 14:00	58.5	55.5	57.0	53.0
2020/12/31 14:30	59.3	56.3	57.5	54.5
2020/12/31 15:00	59.7	56.7	57.5	55.5
2020/12/31 15:30	60.2	57.2	58.0	56.5
2020/12/31 16:00	60.5	57.5	58.5	53.5
2020/12/31 16:30	58.6	55.6	56.5	53.0
2020/12/31 17:00	62.6	59.6	60.5	53.5
2020/12/31 17:30	58.3	55.3	55.0	53.0
2020/12/31 18:00	57.7	54.7	55.5	53.0
2020/12/31 18:30	63.0	60.0	62.0	53.5
2021/1/1 07:00	58.3	55.3	56.0	54.5
2021/1/1 07:30	58.1	55.1	55.5	54.5

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Baseline Noise Monitoring Data

2021/1/1 08:00	58.3	55.3	56.0	54.0
2021/1/1 08:30	58.8	55.8	56.5	54.0
2021/1/1 09:00	58.7	55.7	56.5	53.5
2021/1/1 09:30	58.8	55.8	56.5	54.0
2021/1/1 10:00	58.0	55.0	56.5	52.5
2021/1/1 10:30	57.0	54.0	55.5	52.5
2021/1/1 11:00	57.8	54.8	56.0	53.0
2021/1/1 11:30	68.7	65.7	66.0	54.0
2021/1/1 12:00	61.0	58.0	58.5	53.5
2021/1/1 12:30	64.7	61.7	61.5	54.5
2021/1/1 13:00	63.5	60.5	62.5	54.5
2021/1/1 13:30	62.7	59.7	62.5	54.5
2021/1/1 14:00	65.7	62.7	65.0	55.5
2021/1/1 14:30	62.1	59.1	61.5	55.5
2021/1/1 15:00	64.5	61.5	64.5	56.0
2021/1/1 15:30	63.8	60.8	63.5	56.0
2021/1/1 16:00	63.1	60.1	62.5	55.0
2021/1/1 16:30	58.5	55.5	56.5	54.0
2021/1/1 17:00	58.7	55.7	56.5	54.5
2021/1/1 17:30	58.9	55.9	56.5	55.0
2021/1/1 18:00	58.9	55.9	56.5	54.5
2021/1/1 18:30	59.0	56.0	56.5	55.0
2021/1/2 07:00	56.5	53.5	54.0	51.5
2021/1/2 07:30	57.3	54.3	55.5	52.0
2021/1/2 08:00	56.4	53.4	54.0	52.0
2021/1/2 08:30	57.1	54.1	55.0	52.5
2021/1/2 09:00	57.9	54.9	54.5	52.5
2021/1/2 09:30	56.2	53.2	54.0	52.0
2021/1/2 10:00	56.4	53.4	54.0	52.0
2021/1/2 10:30	57.0	54.0	54.5	52.5
2021/1/2 11:00	57.0	54.0	54.5	52.5
2021/1/2 11:30	56.7	53.7	54.5	52.5
2021/1/2 12:00	56.7	53.7	54.5	52.5
2021/1/2 12:30	56.9	53.9	54.5	52.5
2021/1/2 13:00	56.9	53.9	55.0	53.0
2021/1/2 13:30	57.2	54.2	55.0	53.0
2021/1/2 14:00	58.9	55.9	54.0	48.5

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Baseline Noise Monitoring Data

2021/1/2 14:30	55.1	52.1	53.0	50.5
2021/1/2 15:00	55.1	52.1	53.0	50.5
2021/1/2 15:30	55.5	52.5	53.5	50.5
2021/1/2 16:00	55.3	52.3	53.0	50.5
2021/1/2 16:30	55.3	52.3	53.5	50.5
2021/1/2 17:00	55.0	52.0	53.0	50.5
2021/1/2 17:30	55.5	52.5	53.0	50.5
2021/1/2 18:00	54.9	51.9	53.0	50.5
2021/1/2 18:30	55.2	52.2	53.0	51.0
2021/1/3 07:00	57.6	54.6	55.5	53.5
2021/1/3 07:30	57.6	54.6	55.5	53.5
2021/1/3 08:00	57.7	54.7	55.5	53.5
2021/1/3 08:30	57.7	54.7	55.5	54.0
2021/1/3 09:00	57.5	54.5	55.5	53.5
2021/1/3 09:30	57.4	54.4	55.0	53.0
2021/1/3 10:00	57.5	54.5	55.5	53.0
2021/1/3 10:30	58.1	55.1	56.0	53.0
2021/1/3 11:00	57.5	54.5	55.5	53.0
2021/1/3 11:30	57.0	54.0	54.5	52.0
2021/1/3 12:00	56.7	53.7	54.5	52.0
2021/1/3 12:30	56.4	53.4	54.0	51.5
2021/1/3 13:00	55.8	52.8	53.5	51.5
2021/1/3 13:30	55.8	52.8	54.0	51.5
2021/1/3 14:00	60.7	57.7	61.0	50.0
2021/1/3 14:30	60.7	57.7	60.5	51.5
2021/1/3 15:00	62.8	59.8	63.0	51.5
2021/1/3 15:30	64.8	61.8	65.0	52.5
2021/1/3 16:00	66.4	63.4	67.0	54.5
2021/1/3 16:30	65.5	62.5	65.0	54.0
2021/1/3 17:00	65.8	62.8	66.0	54.5
2021/1/3 17:30	64.5	61.5	64.5	54.0
2021/1/3 18:00	56.8	53.8	55.5	50.5
2021/1/3 18:30	54.3	51.3	51.5	50.0
2021/1/4 07:00	54.1	51.1	51.0	50.0
2021/1/4 07:30	53.6	50.6	51.0	50.0
2021/1/4 08:00	58.3	55.3	51.0	50.0
2021/1/4 08:30	54.0	51.0	51.5	50.0

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Baseline Noise Monitoring Data

2021/1/4 09:00	53.6	50.6	51.0	50.0
2021/1/4 09:30	54.1	51.1	51.5	50.0
2021/1/4 10:00	53.8	50.8	51.5	50.0
2021/1/4 10:30	53.9	50.9	53.0	48.5
2021/1/4 11:00	52.6	49.6	50.5	48.5
2021/1/4 11:30	53.1	50.1	52.0	48.5
2021/1/4 12:00	53.1	50.1	51.5	48.0
2021/1/4 12:30	62.3	59.3	55.0	48.5
2021/1/4 13:00	55.8	52.8	55.5	49.0
2021/1/4 13:30	65.5	62.5	60.5	49.5
2021/1/4 14:00	53.3	50.3	51.0	49.0
2021/1/4 14:30	59.7	56.7	58.0	50.0
2021/1/4 15:00	54.8	51.8	52.5	49.5
2021/1/4 15:30	57.1	54.1	51.0	49.5
2021/1/4 16:00	53.2	50.2	50.5	49.5
2021/1/4 16:30	54.2	51.2	51.0	49.5
2021/1/4 17:00	53.6	50.6	51.0	49.5
2021/1/4 17:30	53.3	50.3	51.0	50.0
2021/1/4 18:00	54.1	51.1	51.5	50.0
2021/1/4 18:30	53.5	50.5	51.0	50.0
2021/1/5 07:00	57.1	54.1	54.5	50.0
2021/1/5 07:30	55.0	52.0	54.0	50.0
2021/1/5 08:00	55.6	52.6	56.0	49.5
2021/1/5 08:30	53.0	50.0	50.5	49.0
2021/1/5 09:00	53.8	50.8	53.5	49.0
2021/1/5 09:30	58.2	55.2	52.5	48.5
2021/1/5 10:00	54.9	51.9	53.0	48.5
2021/1/5 10:30	56.0	53.0	54.0	50.5
2021/1/5 11:00	56.0	53.0	54.0	51.0
2021/1/5 11:30	55.8	52.8	54.0	51.5
2021/1/5 12:00	55.7	52.7	53.5	51.5
2021/1/5 12:30	56.0	53.0	54.0	51.5
2021/1/5 13:00	56.2	53.2	54.5	52.0
2021/1/5 13:30	55.9	52.9	55.0	49.5
2021/1/5 14:00	53.6	50.6	52.0	49.0
2021/1/5 14:30	56.2	53.2	53.0	49.5
2021/1/5 15:00	56.8	53.8	55.5	51.0

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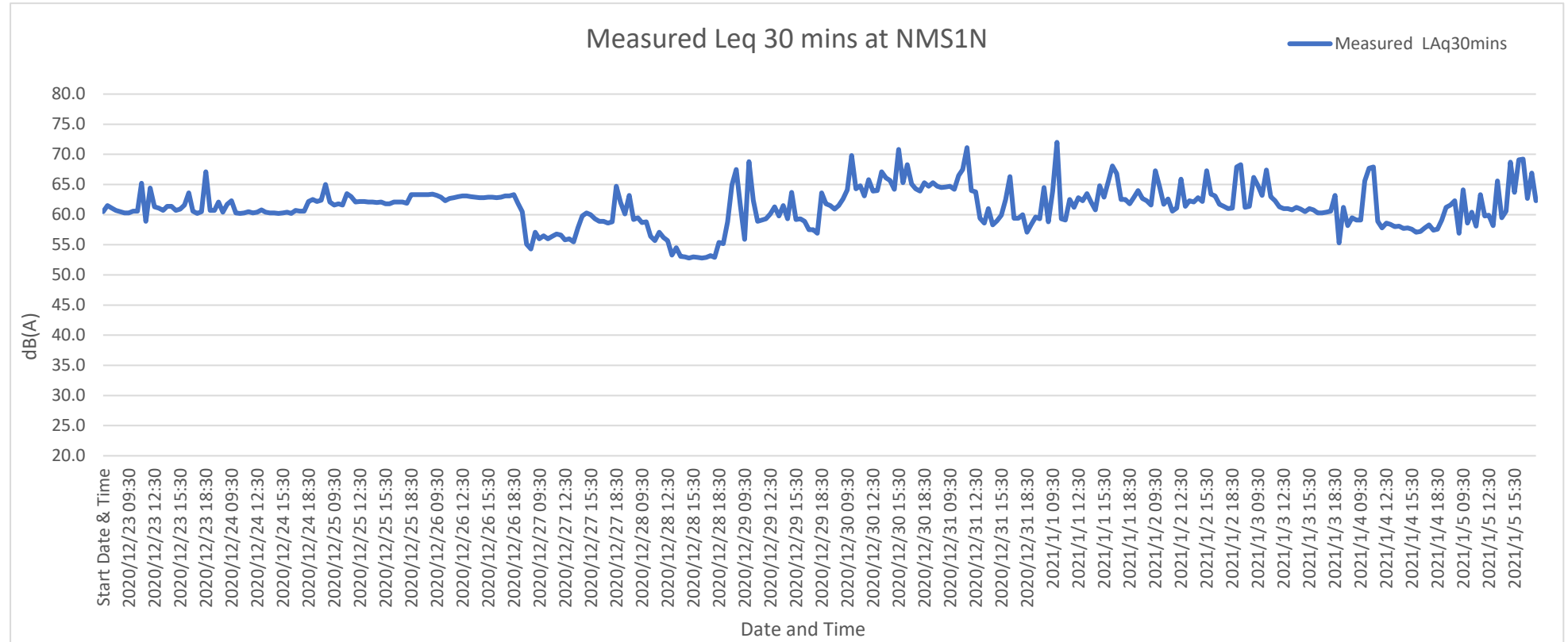
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Baseline Noise Monitoring Data

2021/1/5 15:30	57.0	54.0	55.0	52.5
2021/1/5 16:00	56.3	53.3	54.5	51.5
2021/1/5 16:30	56.0	53.0	54.0	51.5
2021/1/5 17:00	56.6	53.6	54.5	52.0
2021/1/5 17:30	56.4	53.4	54.5	52.0
2021/1/5 18:00	57.6	54.6	55.0	52.5
2021/1/5 18:30	57.5	54.5	55.0	52.5
Average for corrected Leq dB(A)	58.1			
Max	68.7			
Min	38.1			

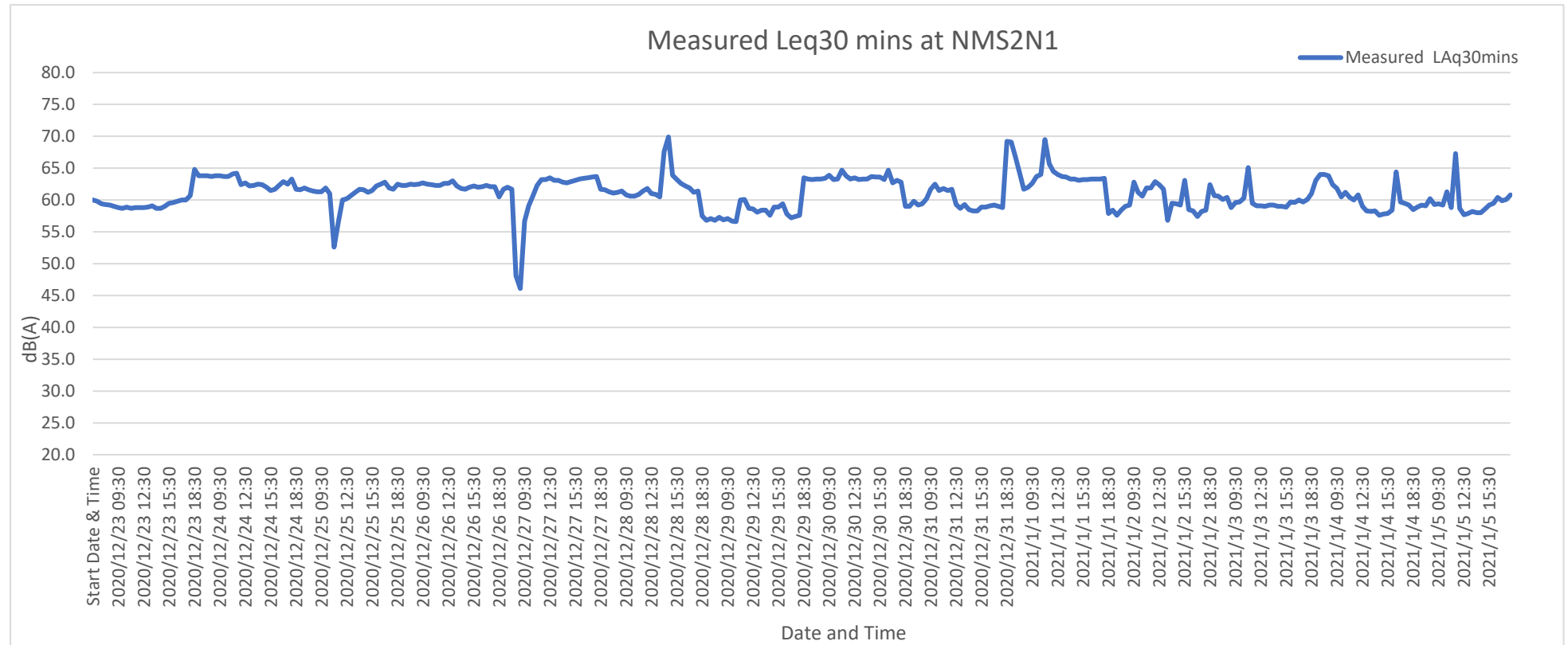
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
NMS1N

30 -minutes Leq Baseline Monitoring



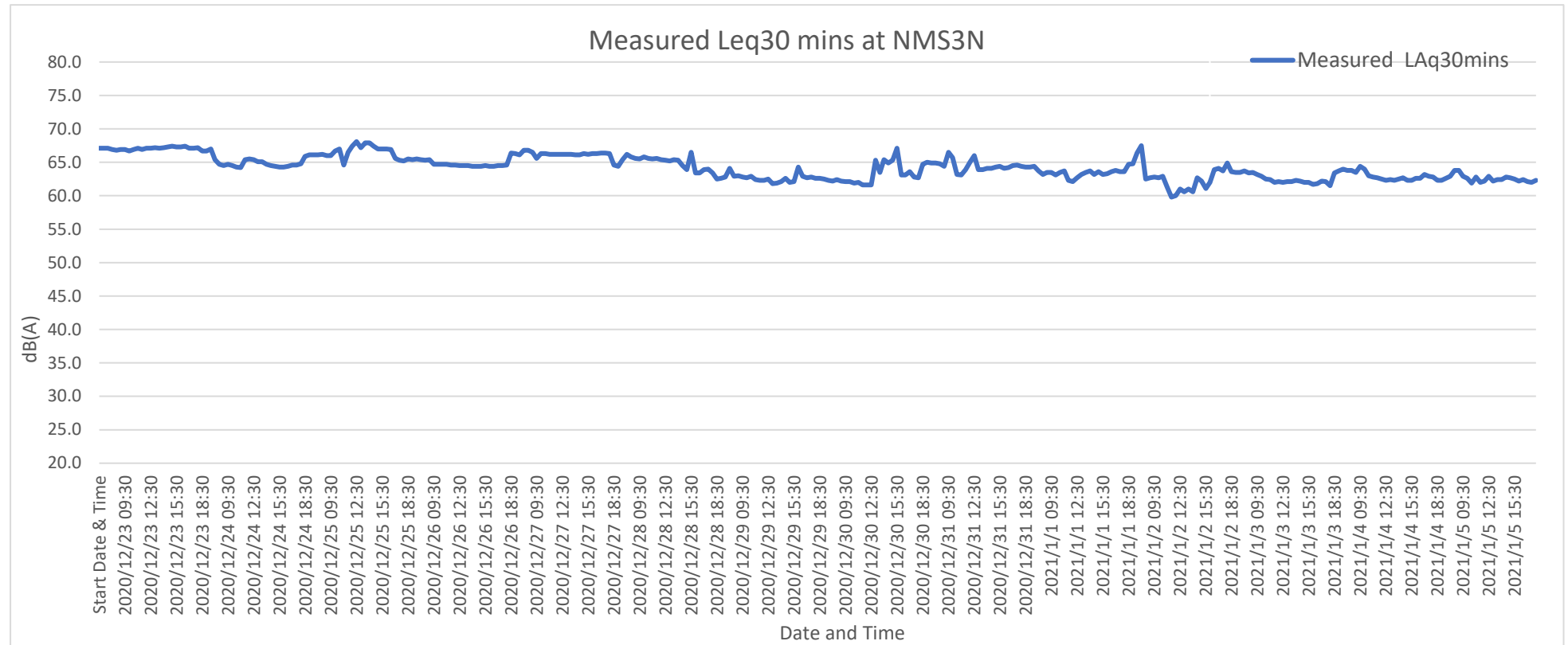
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
NMS2N1

30 -minutes Leq30 Baseline Monitoring



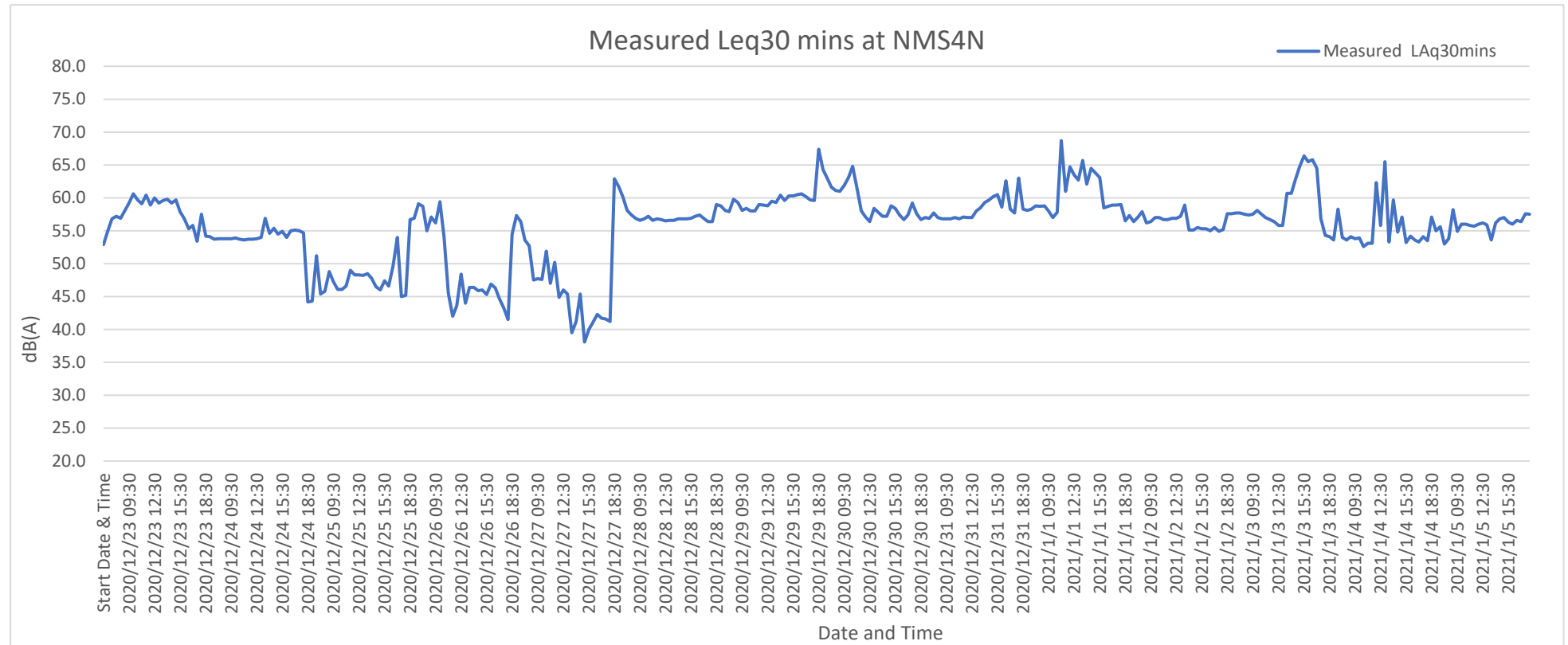
Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
NMS3N

30 -minutes Leq30 Baseline Monitoring



Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O
Baseline Noise Monitoring Data
NMS4N

30 -minutes Leq30 Baseline Monitoring



Appendix 4-3

Event and Action Plan for Noise Impact Monitoring

Appendix 4-3 Event and Action Plan for Noise Impact Monitoring

EVENT	ACTION			
	ET	IEC	ER	Contractor
Action Level	1. Notify IEC, ER and Contractor of exceedance; 2. Identify source 3. Investigate the causes of exceedance and propose remedial measures; 4. Report the results of investigation to the IEC, ER and Contractor; 5. Discuss with the IEC, ER and Contractor and formulate remedial measures; 6. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to ER with copy to ET and IEC; Implement noise mitigation proposals.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level				
	1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, investigate what portion of the work is responsible and instruct the Contractor to terminate that portion of work until the exceedance ceases.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to ER with copy to ET and IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Terminate the relevant portion of works as determined by the ER until the exceedance ceases.

Appendix 5-1

Certificates and Method Statement for Water Quality Monitoring Equipment

Report No. : 142626WA201910(1)



Page 1 of 3

Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter**Information Supplied by Client**

Client : Fugro Technical Services Limited (MCL)

Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,
Kwai Fung Crescent, Kwai Chung, N.T.

Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter

Client sample ID : Serial No. 19E100633

Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

Laboratory Information

Lab. sample ID : WA201910/2

Date sample received : 03/10/2020

Date of calibration : 10/10/2020

Next calibration date : 09/01/2021

Test method used : In-house comparison method

Note : This report refers only to the sample(s) tested.

Report No. : 142626WA201910(1)

Page 2 of 3

Results :
A. pH calibration

pH reading at 22°C for Q.C. solution(6.86) and at 21°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.22	+0.04
6.86	6.88	+0.02

B. Salinity calibration

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.09	+0.09	± 0.5
20	19.87	-0.13	± 1.0
30	30.04	+0.04	± 1.5
40	39.93	-0.07	± 2.0

C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.28	8.47
2	8.30	8.48
3	8.35	8.44
Average	8.31	8.46

Differences of D.O. Content between Winkler Titration and D.O. meter should be less than 0.2 mg/L

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

27/10/2020

Note : This report refers only to the sample(s) tested.

Report No. : 142626WA201910(1)

Page 3 of 3

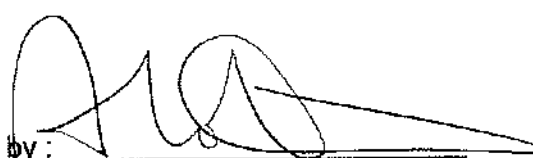
Results :
D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
21.9	21.79

E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
4	3.76	-0.24	± 0.6
8	8.43	+0.43	± 0.8
40	40.80	+0.80	± 3.0
80	80.28	+0.28	± 4.0

Certified by :


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 27/10/2020

**** End of Report ****
Note : This report refers only to the sample(s) tested.

Report No. : 142626WA202315



Page 1 of 3

Report on Calibration of YSI EXO-3 Multi-parameter Water Quality Meter**Information Supplied by Client**

Client : Fugro Technical Services Limited (MCL)

Client's address : Rm. 723-726, 7/F, Profit Industrial Building, No. 1-15,
Kwai Fung Crescent, Kwai Chung, N.T.

Sample description : One YSI EXO-3 Multi-parameter Water Quality Meter

Client sample ID : Serial No. 19E100634

Test required : Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter

Laboratory Information

Lab. sample ID : WA202315/1

Date sample received : 03/12/2020

Date of calibration : 10/12/2020

Next calibration date : 09/03/2021

Test method used : In-house comparison method

Note : This report refers only to the sample(s) tested.

Report No. : 142626WA202315

Page 2 of 3

Results :
A. pH calibration

pH reading at 23°C for Q.C. solution(6.86) and at 22°C for Q.C. solution(9.18)		
Theoretical	Measured	Deviation
9.18	9.14	-0.04
6.86	6.86	0.00

B. Salinity calibration

Salinity, ppt			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
10	10.06	+0.06	± 0.5
20	19.85	-0.15	± 1.0
30	30.01	+0.01	± 1.5
40	39.94	-0.06	± 2.0

C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L	
	By Titration	By D.O. meter
1	8.33	8.51
2	8.30	8.50
3	8.35	8.52
Average	8.33	8.51

Differences of D.O. Content between Winkler Titration and D.O. meter should be less than 0.2 mg/L

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

13/11/2021

Note : This report refers only to the sample(s) tested.

Report No. : 142626WA202315

Page 3 of 3

Results :
D. Temperature calibration

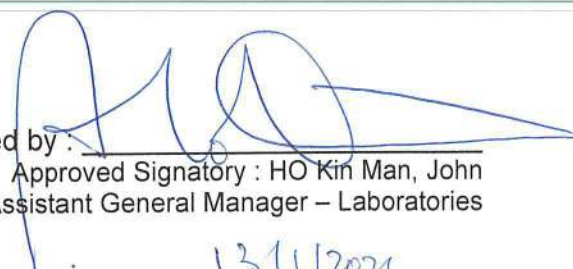
Thermometer reading, °C	Meter reading, °C
22.5	22.61

E. Turbidity calibration

Turbidity, N.T.U.			
Theoretical	Measured	Deviation	Maximum acceptable Deviation
0	-	-	± 0.5
4	4.42	+0.42	± 0.6
8	8.48	+0.48	± 0.8
40	39.40	-0.60	± 3.0
80	80.14	+0.14	± 4.0

F. Chlorophyll calibration

Chlorophyll reading at 25.3°C for Std. solution (62.5ug/L)		
Theoretical (ug/L) (Temp.-compensated)	Measured	Deviation
62.5	60.4	-2.1

Certified by : 

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

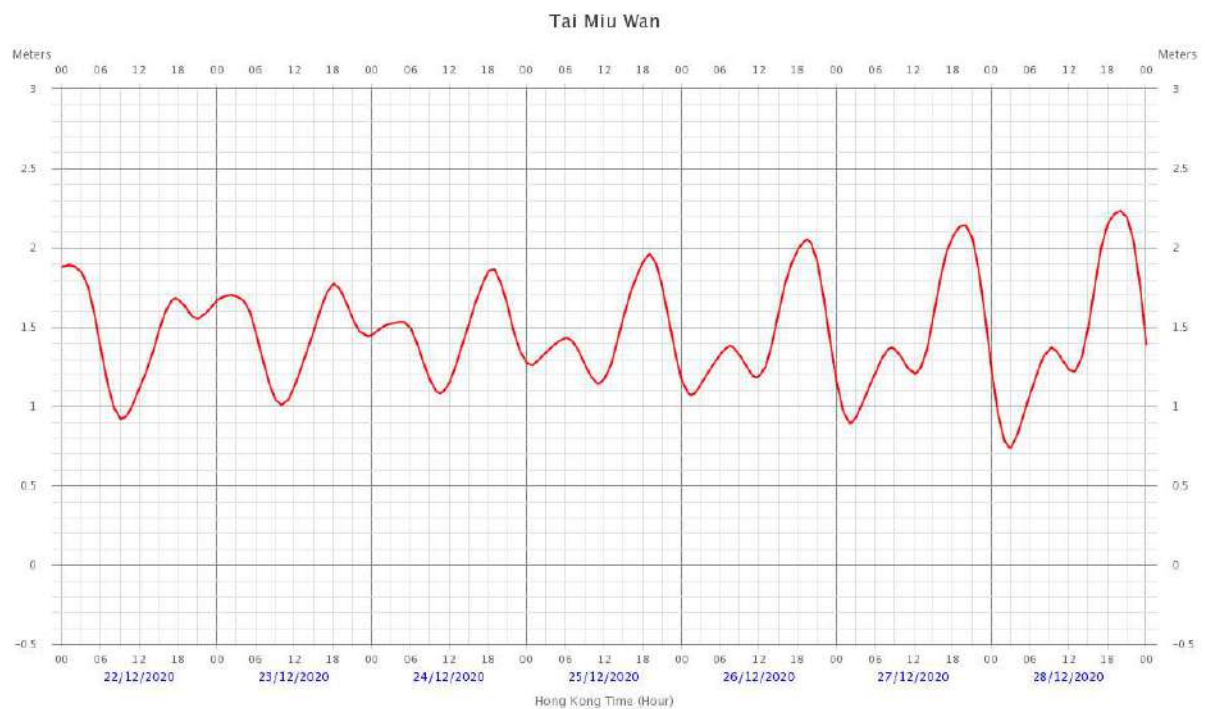
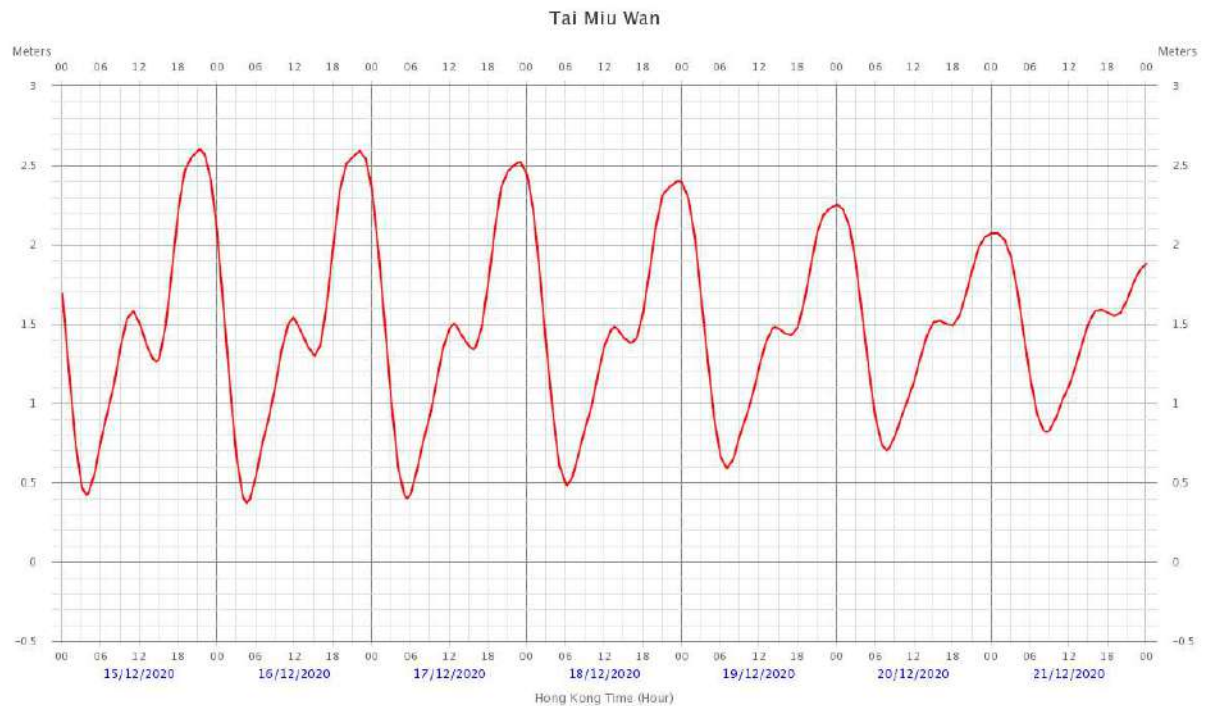
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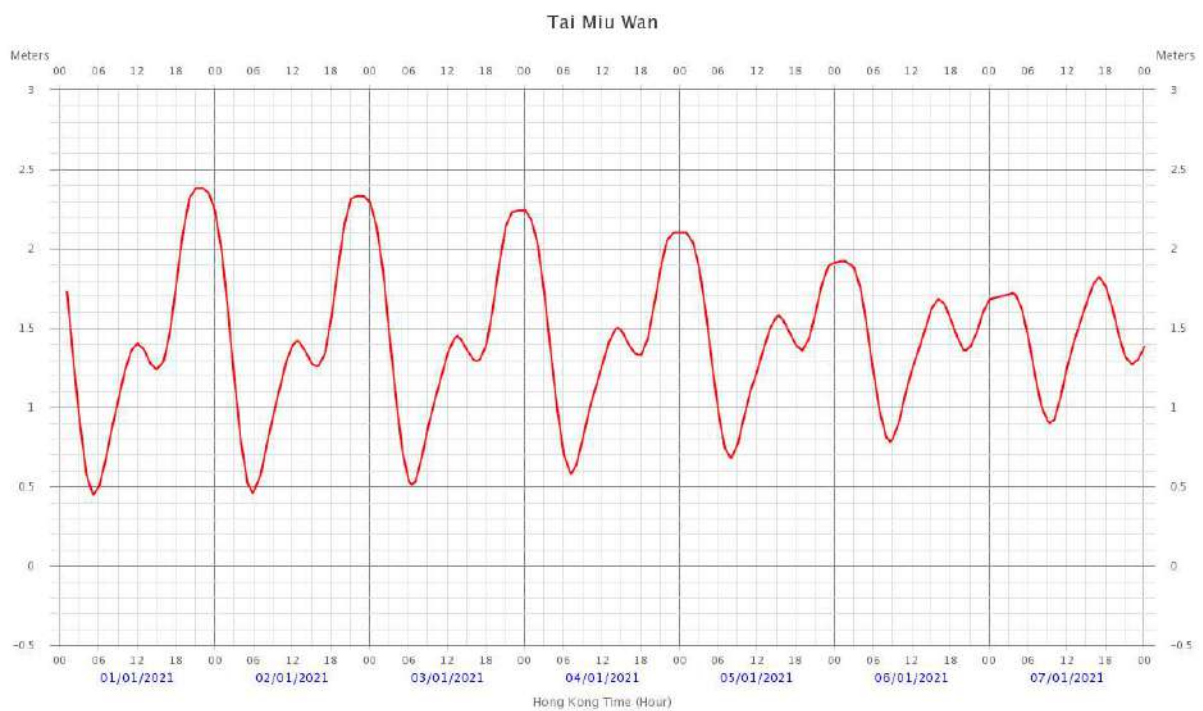
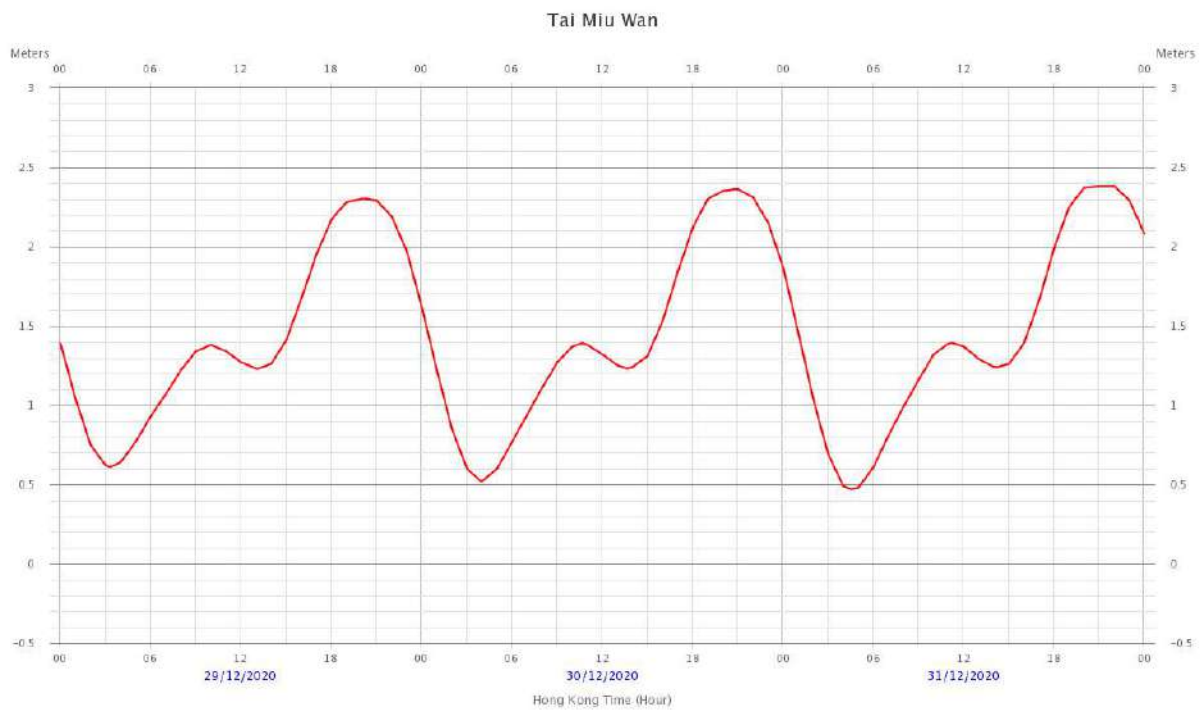
**** End of Report ****
Note : This report refers only to the sample(s) tested.

Appendix 5-2

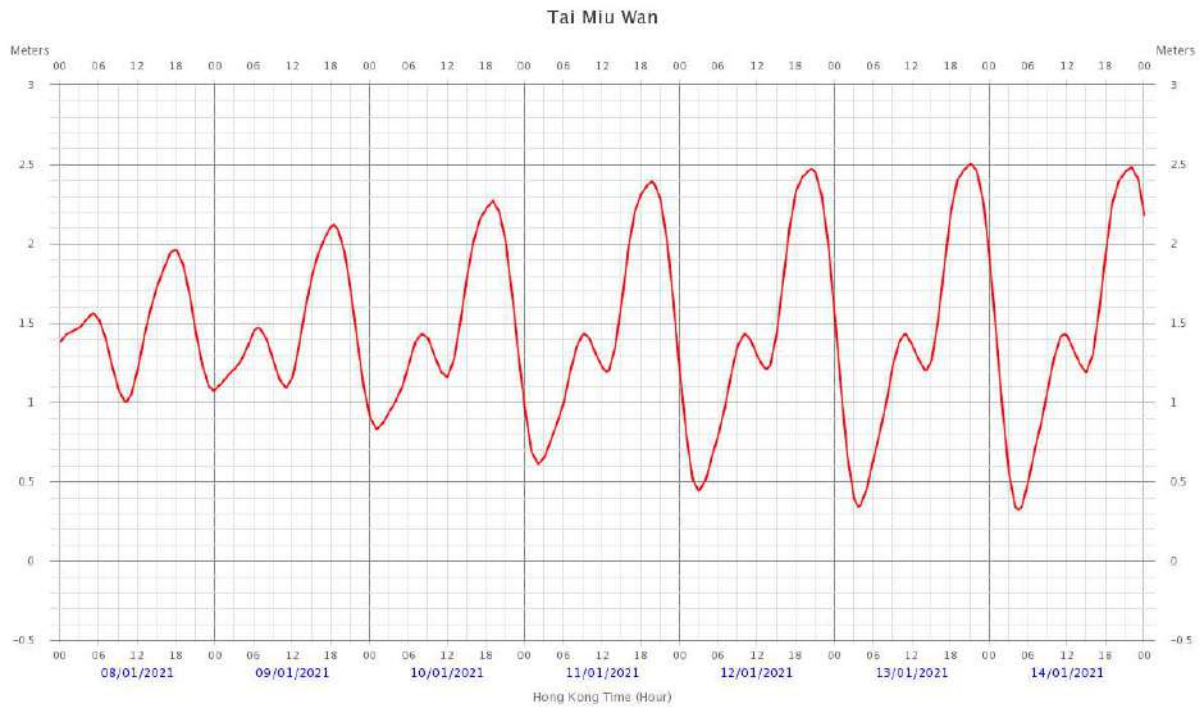
Predicted Tidal Data from Tai Miu Wan Tidal Station

Water Quality Baseline monitoring –
Predicted Tides Data From HKO- Tai Miu Wan Station





Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O



Source: HKO : <https://www.hko.gov.hk/en/tide/predtide.htm?s=TMW>

Appendix 5-3

Water Quality Baseline Monitoring Schedule

Contract No. EP516/2016
Port Shelter Sewerage, stage 3 – Sewage Works at Po Toi O

Water Quality Baseline Monitoring Schedule

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
				* Water Quality Baseline Monitoring Flood:0900 Ebb:14:10		* Water Quality Baseline Monitoring Flood:10:43 Ebb:15:39
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
		* Water Quality Baseline Monitoring Flood:13:19 Ebb:19:09		* Water Quality Baseline Monitoring Flood:14:33 Ebb:07:19		* Water Quality Baseline Monitoring Flood:15:29 Ebb:09:33
27-Dec	28-Dec	29-Dec	30-Dec	31-Dec	1-Jan	2-Jan
		* Water Quality Baseline Monitoring Flood:16:44 Ebb:11:35		* Water Quality Baseline Monitoring Flood:17:44 Ebb:12:46		* Water Quality Baseline Monitoring Flood:17:38 Ebb:13:08
3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan	9-Jan
		* Water Quality Baseline Monitoring Flood:11:26 Ebb:16:51		* Water Quality Baseline Monitoring Flood:13:04 Ebb:19:20		* Water Quality Baseline Monitoring Flood:14:29 Ebb:08:31
10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan	16-Jan
		* Water Quality Baseline Monitoring Flood:17:13 Ebb:11:41				

Remarks

1. Water sampling will be conducted +/- 1 hour of the predicted tides time.
2. Predicted tides time were reference from Hong Kong Observatory (Tai Miu Wan Station).

Appendix 5-4

Water Quality Monitoring Results

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
17-Dec-20	Mid-Ebb	WMS-1N	Cloudy	13:00	4.4	S	1.0	1	8.20	8.20	30.89	30.89	18.8	18.8	97.2	97.4	7.54	7.55	0.8	0.9	7.0	7.0	
								2	8.20		30.89		18.8		97.5		7.56		0.9		7.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.4	1	8.22	8.22	30.91	30.91	18.6	18.6	95.5	95.6	7.44	7.45	1.1	1.1	8.0	8.0	
								2	8.22		30.91		18.6		95.7		7.46		1.1		8.0		
		WMS-2N		13:13	4.7	S	1.0	1	8.23	8.23	30.90	30.90	19.0	19.0	100.0	100.2	7.72	7.74	0.9	0.9	9.0	9.0	
								2	8.23		30.90		19.0		100.3		7.75		0.9		9.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.7	1	8.22	8.22	30.88	30.88	18.6	18.6	94.5	94.7	7.35	7.37	1.1	1.2	8.0	8.0	
								2	8.22		30.88		18.6		94.8		7.38		1.2		8.0		
		WMS3		13:23	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.4	1	8.26	8.26	30.88	30.88	19.3	19.3	100.4	100.3	7.70	7.69	0.4	0.4	6.0	6.0	
								2	8.26		30.88		19.3		100.2		7.68		0.4		6.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS4		13:29	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.4	1	8.26	8.26	30.85	30.85	19.6	19.6	101.4	101.3	7.74	7.73	0.6	0.7	7.0	7.0	
								2	8.26		30.85		19.6		101.2		7.72		0.7		7.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS5		13:35	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.2	1	8.25	8.25	30.91	30.91	19.5	19.5	100.5	100.6	7.66	7.67	1.1	1.1	5.0	5.0	
								2	8.25		30.91		19.5		100.6		7.67		1.1		5.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS6		13:42	6.7	S	1.0	1	8.26	8.26	30.88	30.88	19.5	19.5	100.1	100.1	7.66	7.66	0.5	0.5	6.0	6.0	
								2	8.26		30.88		19.5		100.0		7.65		0.5		6.0		
						M	3.4	1	8.25	8.25	30.87	30.87	18.9	18.9	97.7	97.8	7.57	7.58	1.0	1.0	6.0	6.0	
								2	8.25		30.87		18.9		97.8		7.58		1.0		6.0		
						B	5.7	1	8.24	8.24	30.83	30.83	18.6	18.6	94.6	94.7	7.36	7.37	1.5	1.6	8.0	8.5	
								2	8.24		30.83		18.6		94.8		7.38		1.6		9.0		
		I2		14:03	16.0	S	1.0	1	8.25	8.25	30.87	30.87	19.6	19.6	99.7	99.6	7.61	7.09	0.7	0.7	8.0	8.0	
								2	8.25		30.87		19.6		99.4		6.57		0.7		8.0		
						M	8.0	1	8.25	8.25	30.84	30.84	19.4	19.4	98.7	98.9	7.56	7.58	0.8	0.9	7.0	7.0	
								2	8.25		30.84		19.4		99.0		7.59		0.9		7.0		
						B	15.0	1	8.25	8.25	30.86	30.86	19.3	19.3	97.7	97.8	7.50	7.52	1.2	1.3	8.0	8.5	
								2	8.25		30.86		19.3		97.9		7.53		1.3		9.0		
		C2		13:18	4.8	S	1.0	1	8.23	8.23	30.87	30.87	18.8	18.8	97.3	97.4	7.53	7.54	0.8	0.9	9.0	9.0	
								2	8.23		30.87		18.8		97.5		7.55		0.9		9.0		
						M	2.4	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.8	1	8.22	8.22	30.91	30.91	18.5	18.5	94.2	94.3	7.34	7.35	1.4	1.4	10.0	10.0	
								2	8.22		30.91		18.5		94.4		7.36		1.4		10.0		
		C3		13:50	16.0	S	1.0	1	8.26	8.26	30.91	30.91	19.5	19.5	99.5	99.7	7.60	7.62	0.5	0.6	7.0	7.0	
2	8.26							30.91	19.5		99.8		7.63		0.6		7.0						
M	8.0					1	8.25	8.25	30.84	30.84	19.3	19.3	98.4	98.3	7.55	7.54	0.9	1.0	5.0	5.0			
						2	8.25		30.84		19.3		98.2		7.53		1.0		5.0				
B	15.0					1	8.25	8.25	30.87	30.87	19.3	19.3	97.9	97.8	7.52	7.51	1.4	1.4	6.0	6.0			
						2	8.25		30.87		19.3		97.6		7.49		1.4		6.0				

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
17-Dec-20	Mid-Flood	WMS-1N	Windy	10:21	4.4	S	1.0	1	8.24	8.24	30.91	30.91	19.1	19.1	97.6	97.7	7.56	7.57	0.8	0.9	6.0	6.0		
								2	8.24		30.91		19.1		97.8		7.58		0.9		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.4	1	8.24	8.24	30.87	30.87	19.0	19.0	97.1	97.2	7.50	7.51	1.1	1.1	9.0	9.0		
								2	8.24		30.87		19.0		97.2		7.51		1.1		9.0			
		WMS-2N		10:08	4.7	S	1.0	1	8.24	8.24	30.89	30.89	19.1	19.1	97.4	97.5	7.50	7.51	0.8	0.8	10.0	10.0		
								2	8.24		30.89		19.1		97.6		7.52		0.8		10.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.7	1	8.24	8.24	30.87	30.87	19.1	19.1	97.1	97.3	7.48	7.50	0.9	0.9	6.0	6.0		
								2	8.24		30.87		19.1		97.4		7.51		0.9		6.0			
		WMS3		09:58	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.24	8.24	30.87	30.87	19.2	19.2	97.3	97.4	7.48	7.49	0.4	0.4	4.0	4.0		
								2	8.24		30.87		19.2		97.5		7.50		0.4		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS4		09:49	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.26	8.26	30.86	30.86	19.5	19.5	98.2	98.3	7.52	7.53	0.6	0.7	9.0	9.0		
								2	8.26		30.86		19.5		98.4		7.54		0.7		9.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS5		09:40	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.26	8.26	30.93	30.93	19.3	19.3	99.2	99.3	7.60	7.61	0.9	0.9	7.0	7.0		
								2	8.26		30.93		19.3		99.4		7.62		0.9		7.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS6		09:30	7.0	S	1.0	1	8.25	8.25	30.90	30.90	19.2	19.2	97.4	97.5	7.49	7.50	0.4	0.5	6.0	6.5		
								2	8.25		30.90		19.2		97.6		7.51		0.5		7.0			
						M	3.5	1	8.24	8.24	30.88	30.88	19.1	19.1	96.0	96.1	7.40	7.41	1.0	1.0	5.0	5.5		
								2	8.24		30.88		19.1		96.2		7.42		1.0		6.0			
						B	6.0	1	8.23	8.23	30.85	30.85	18.9	18.9	95.7	95.6	7.42	7.41	1.6	1.7	7.0	7.5		
								2	8.23		30.85		18.9		95.5		7.40		1.7		8.0			
		I1		09:20	13.0	S	1.0	1	8.25	8.25	30.92	30.92	19.3	19.3	98.1	98.2	7.52	7.53	0.4	0.5	8.0	8.0		
								2	8.25		30.92		19.3		98.2		7.53		0.5		8.0			
						M	6.5	1	8.24	8.24	30.84	30.84	19.2	19.2	96.3	96.2	7.41	7.40	0.5	0.6	15.0	15.0		
								2	8.24		30.84		19.2		96.1		7.39		0.6		15.0			
						B	12.0	1	8.24	8.24	30.87	30.87	19.0	19.0	96.3	96.5	7.43	7.45	2.0	2.1	6.0	6.0		
								2	8.24		30.87		19.0		96.7		7.47		2.1		6.0			
		C1		09:00	19.0	S	1.0	1	8.12	8.12	30.83	30.83	19.5	19.5	97.9	97.8	7.50	7.49	0.3	0.4	11.0	11.0		
								2	8.12		30.83		19.5		97.6		7.47		0.4		11.0			
						M	9.5	1	8.10	8.10	30.83	30.83	19.5	19.5	97.6	97.7	7.47	7.48	0.4	0.4	6.0	6.5		
								2	8.10		30.83		19.5		97.8		7.49		0.3		7.0			
						B	18.0	1	8.08	8.08	30.84	30.84	19.5	19.5	97.6	97.8	7.46	7.48	0.4	0.4	9.0	9.0		
								2	8.08		30.84		19.5		97.9		7.49		0.4		9.0			

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
19-Dec-20	Mid-Ebb	WMS-1N	Fine	15:43	7.0	S	1.0	1	8.26	8.26	30.87	30.90	18.1	18.1	99.1	99.3	7.70	7.75	0.9	0.9	10.0		
								2	8.25		30.92		18.1		99.5		7.80		0.9		11.0		
						M	3.5	1	8.25	8.25	30.85	30.86	18.1	18.1	98.5	98.4	7.74	7.73	1.0	1.0	9.0	9.0	
								2	8.25		30.86		18.1		98.3		7.71		1.0		9.0		
						B	6.0	1	8.24	8.25	30.84	30.83	17.9	17.9	97.0	97.1	7.64	7.64	1.5	1.6	11.0	11.0	
								2	8.25		30.82		17.9		97.1		7.64		1.6		11.0		
		WMS-2N		15:52	6.0	S	1.0	1	8.27	8.27	30.88	30.89	18.3	18.3	101.0	101.2	7.90	7.91	1.0	1.0	9.0	9.0	
								2	8.26		30.90		18.3		101.3		7.92		1.0		9.0		
						M	3.0	1	8.26	8.26	30.82	30.83	18.3	18.3	99.9	99.8	7.82	7.81	1.1	1.1	5.0	5.5	
								2	8.26		30.84		18.3		99.7		7.80		1.1		6.0		
						B	5.0	1	8.25	8.26	30.86	30.87	18.0	18.0	97.2	97.3	7.65	7.66	1.8	1.8	7.0	7.0	
								2	8.26		30.88		18.0		97.3		7.66		1.8		7.0		
		WMS3		16:11	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
						M	1.4	1	8.25	8.26	30.87	30.88	18.6	18.7	100.4	100.6	7.81	7.83	0.4	0.4	12.0	12.0	
								2	8.26		30.89		18.7		100.7		7.84		0.4		12.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS4		16:19	3.2	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
						M	1.6	1	8.25	8.26	30.89	30.91	18.6	18.6	100.0	100.2	7.78	7.80	0.4	0.5	8.0	8.0	
								2	8.26		30.93		18.6		100.3		7.81		0.5		8.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS5		16:25	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
						M	1.4	1	8.25	8.25	30.84	30.85	19.0	19.0	99.7	99.8	7.70	7.71	0.3	0.3	8.0	8.0	
								2	8.25		30.85		19.0		99.9		7.72		0.3		8.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS6		16:31	4.3	S	1.0	1	8.25	8.26	30.88	30.90	18.7	18.7	100.2	100.3	7.79	7.80	0.8	0.8	7.0	7.5	
								2	8.26		30.92		18.7		100.4		7.80		0.8		8.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.3	1	8.25	8.25	30.80	30.81	18.7	18.7	99.7	99.5	7.75	7.74	1.4	1.5	9.0	9.5	
								2	8.25		30.82		18.7		99.3		7.72		1.5		10.0		
		I2		16:43	13.0	S	1.0	1	8.24	8.25	30.76	30.78	19.2	19.2	98.9	99.0	7.62	7.64	0.4	0.4	5.0	6.5	
								2	8.25		30.79		19.2		99.0		7.65		0.4		8.0		
						M	6.5	1	8.25	8.25	30.84	30.86	19.1	19.1	98.6	98.6	7.61	7.61	0.3	0.3	6.0	6.0	
								2	8.25		30.88		19.1		98.5		7.60		0.3		6.0		
						B	12.0	1	8.25	8.26	30.81	30.82	19.0	19.0	98.6	98.6	7.61	7.60	0.3	0.3	7.0	7.0	
								2	8.26		30.82		19.0		98.5		7.59		0.3		7.0		
		C2		16:01	4.0	S	1.0	1	8.27	8.28	30.85	30.87	18.6	18.6	100.2	100.3	7.80	7.81	0.8	0.8	6.0	6.0	
								2	8.28		30.88		18.6		100.4		7.81		0.8		6.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.0	1	8.26	8.26	30.82	30.82	18.6	18.6	100.0	100.2	7.79	7.80	0.6	0.7	5.0	5.0	
								2	8.25		30.81		18.6		100.3		7.81		0.7		5.0		
		C3		17:01	14.0	S	1.0	1	8.24	8.25	30.84	30.85	19.0	19.0	98.5	98.6	7.61	7.62	0.4	0.4	8.0	8.0	
								2	8.25		30.85		19.0		98.7		7.63		0.4		8.0		
						M	7.0	1	8.24	8.25	30.81	30.82	19.0	19.0	98.0	98.4	7.60	7.62	0.4	0.4	8.0	8.0	
								2	8.26		30.82		19.0		98.8		7.64		0.4		8.0		
						B	13.0	1	8.23	8.24	30.75	30.76	19.0	19.0	97.5	97.4	7.54	7.53	0.7	0.7	7.0	7.0	
								2	8.24		30.76		19.0		97.2		7.52		0.7		7.0		

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
19-Dec-20	Mid-Flood	WMS-1N	Fine	10:50	6.7	S	1.0	1	8.25	8.25	30.93	30.94	18.1	18.2	100.6	100.7	7.89	7.89	0.8	0.8	5.0	5.0	
								2	8.24		30.95		18.2		100.7		7.89		0.8		5.0		
						M	3.4	1	8.25	8.25	30.84	30.85	18.2	18.2	99.7	99.6	7.82	7.81	0.9	0.9	5.0	5.0	
								2	8.25		30.85		18.2		99.5		7.80		0.9		5.0		
						B	5.7	1	8.25	8.26	30.88	30.90	18.2	18.2	97.4	97.2	7.62	7.60	1.1	1.2	6.0	6.0	
								2	8.26		30.92		18.2		96.9		7.58		1.2		6.0		
		WMS-2N		10:57	S	1.0	1	8.25	8.25	31.02	31.03	18.0	18.0	99.8	99.8	7.85	7.85	2.6	2.6	6.0	6.0		
							2	8.25		31.04		18.0		99.7		7.84		2.5		6.0			
					M	3.4	1	8.25	8.26	30.92	30.91	18.0	18.1	98.4	98.2	7.59	7.58	2.0	2.0	5.0	5.0		
							2	8.26		30.90		18.1		98.0		7.57		2.0		5.0			
					B	5.7	1	8.24	8.25	30.83	30.84	18.1	18.1	97.9	97.8	7.69	7.67	1.7	1.7	5.0	5.0		
							2	8.25		30.84		18.1		97.6		7.64		1.7		5.0			
		WMS3		11:09	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
					M	1.5	1	8.26	8.26	30.84	30.86	18.6	18.6	99.5	99.5	7.75	7.76	0.3	0.3	5.0	5.5		
							2	8.25		30.87		18.6		99.5		7.77		0.3		6.0			
					B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS4		11:16	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
					M	1.3	1	8.25	8.26	30.84	30.85	18.9	18.9	100.6	105.8	7.79	7.81	0.2	0.2	4.0	4.0		
							2	8.26		30.85		18.9		110.9		7.83		0.2		4.0			
					B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS5		11:23	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
					M	1.4	1	8.25	8.26	30.80	30.81	18.9	19.0	98.4	98.6	7.60	7.62	0.2	0.2	6.0	5.5		
							2	8.26		30.82		19.0		98.7		7.63		0.2		5.0			
					B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
							2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS6		11:31	S	1.0	1	8.25	8.26	30.87	30.88	18.5	18.5	99.5	99.7	7.76	7.78	0.4	0.5	5.0	5.5		
							2	8.26		30.89		18.5		99.9		7.79		0.5		6.0			
					M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
							2	NA		NA		NA		NA		NA		NA		NA		NA	
					B	3.7	1	8.25	8.26	30.92	30.93	18.5	18.5	99.1	99.3	7.73	7.74	0.6	0.6	5.0	5.0		
							2	8.26		30.93		18.5		99.4		7.75		0.5		5.0			
		I1		11:43	S	1.0	1	8.26	8.26	30.83	30.86	18.9	18.9	99.1	99.3	7.70	7.72	0.2	0.2	5.0	5.0		
							2	8.25		30.88		18.9		99.4		7.73		0.2		5.0			
					M	7.0	1	8.25	8.26	30.76	30.76	18.7	18.8	98.3	98.3	7.63	7.62	1.0	1.0	5.0	5.0		
							2	8.26		30.75		18.8		98.2		7.61		1.0		5.0			
					B	13.0	1	8.25	8.25	30.81	30.81	18.5	18.5	98.9	98.8	7.71	7.71	1.5	1.6	6.0	6.0		
							2	8.25		30.81		18.5		98.7		7.70		1.6		6.0			
		C1		11:59	S	1.0	1	8.17	8.17	30.85	30.87	19.0	19.0	100.5	100.7	7.76	7.78	0.3	0.3	7.0	7.0		
							2	8.17		30.88		19.0		100.9		7.79		0.3		7.0			
					M	8.0	1	8.20	8.21	30.80	30.81	19.1	19.1	98.3	98.2	7.58	7.57	0.4	0.4	6.0	6.0		
							2	8.21		30.82		19.1		98.0		7.55		0.4		6.0			
					B	15.0	1	8.23	8.24	30.78	30.77	19.1	19.1	97.7	97.7	7.53	7.53	0.3	0.3	5.0	5.5		
							2	8.24		30.76		19.1		97.7		7.52		0.3		6.0			

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis	
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L	
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
22-Dec-20	Mid-Ebb	WMS-1N	Fine	19:16	5.4	S	1.0	1	8.26	8.27	30.80	30.82	18.3	18.3	103.9	104.1	8.13	8.14	0.7	0.8	9.0	
								2	8.27		30.83		18.3		104.2		8.15		0.8		8.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.4	1	8.26	8.26	30.76	30.74	18.2	18.2	103.6	103.6	8.12	8.12	0.9	0.9	10.0	
								2	8.26		30.72		18.2		103.5		8.11		0.9		11.0	
		WMS-2N		19:27	5.4	S	1.0	1	8.25	8.25	30.82	30.84	18.6	18.6	103.7	103.6	8.13	8.12	0.9	0.9	8.0	
								2	8.25		30.85		18.6		103.4		8.10		0.9		8.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.4	1	8.26	8.27	30.71	30.73	18.5	18.5	103.4	103.2	8.09	8.08	1.0	1.0	7.0	
								2	8.27		30.74		18.5		103.0		8.07		1.0		7.0	
		WMS3		19:40	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.32	8.31	30.85	30.84	18.6	18.6	101.6	101.5	7.90	7.90	1.0	1.0	6.0	
								2	8.30		30.83		18.6		101.4		7.90		0.9		6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS4		20:01	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.25	8.25	30.83	30.85	18.4	18.4	102.4	102.3	8.00	8.00	1.4	1.4	9.0	
								2	8.24		30.86		18.4		102.1		7.99		1.3		9.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS5		20:10	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.24	8.24	30.85	30.85	18.5	18.6	100.2	100.4	7.81	7.83	1.5	1.5	9.0	
								2	8.24		30.85		18.6		100.5		7.84		1.5		9.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS6		19:52	5.6	S	1.0	1	8.24	8.25	30.80	30.79	18.6	18.6	101.3	101.4	7.88	7.89	1.0	1.1	9.0	
								2	8.25		30.78		18.6		101.4		7.89		1.1		9.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.6	1	8.25	8.26	30.72	30.73	18.5	18.5	102.2	102.3	7.98	7.99	1.1	1.1	9.0	
								2	8.26		30.73		18.5		102.3		7.99		1.1		9.0	
		I2		20:22	13.2	S	1.0	1	8.25	8.25	30.83	30.84	18.6	18.6	102.9	102.8	8.02	8.02	1.1	1.2	10.0	
								2	8.25		30.84		18.6		102.7		8.01		1.2		10.0	
						M	6.6	1	8.25	8.25	30.80	30.83	18.6	18.6	102.8	102.8	8.00	8.00	1.3	1.3	9.0	
								2	8.25		30.85		18.6		102.8		8.00		1.3		9.0	
						B	12.2	1	8.24	8.24	30.82	30.84	18.6	18.6	100.2	100.1	7.80	7.80	1.8	1.8	11.0	
								2	8.24		30.86		18.6		100.0		7.79		1.8		11.0	
		C2		19:33	5.2	S	1.0	1	8.25	8.25	30.82	30.81	18.6	18.6	103.4	103.6	8.09	8.11	0.9	0.9	8.0	
								2	8.25		30.80		18.6		103.7		8.12		0.9		8.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.2	1	8.25	8.25	30.85	30.83	17.9	17.9	101.0	101.2	7.85	7.87	0.9	1.0	7.0	
								2	8.25		30.80		17.9		101.3		7.88		1.0		7.0	
		C3		20:30	13.5	S	1.0	1	8.24	8.24	30.83	30.84	18.5	18.5	100.6	100.6	7.84	7.84	1.4	1.4	8.0	
								2	8.24		30.84		18.5		100.5		7.83		1.4		8.0	
						M	6.8	1	8.24	8.25	30.85	30.87	18.5	18.5	100.4	100.2	7.82	7.81	1.4	1.5	8.0	
								2	8.25		30.89		18.5		100.0							
B	12.5		1			8.23	8.23	30.92	30.91	18.5	18.5	98.2	98.1	7.66	7.66	2.6	2.6	7.0				
			2			8.22		30.90		18.5		98.0		7.65		2.6		7.0				

Water Quality Monitoring Results

Date		Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
										pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
22-Dec-20	Mid-Flood	WMS-1N	Fine	14:32	5.5	S	1.0	1	8.23	8.23	30.84	30.85	17.9	17.9	100.6	100.5	7.94	7.93	0.8	0.8	8.0	8.0		
								2	8.23		30.85		17.9		100.4		7.92		0.8		8.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	4.5	1	8.23	8.24	30.83	30.85	18.0	18.0	100.9	100.8	7.95	7.95	0.7	0.7	11.0	11.0		
								2	8.24		30.86		18.0		100.7		7.95		0.7		11.0			
				14:25	5.8	S	1.0	1	8.24	8.25	30.87	30.90	18.1	18.2	102.4	102.5	8.04	8.04	0.9	0.9	10.0	9.5		
								2	8.25		30.93		18.2		102.5		8.04		0.9		9.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	4.8	1	8.24	8.24	30.86	30.87	18.3	18.3	102.8	102.9	8.05	8.05	0.8	0.9	10.0	10.0		
								2	8.24		30.87		18.3		102.9		8.05		0.9		10.0			
				14:19	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.23	8.24	30.81	30.82	18.6	18.6	100.7	100.6	7.84	7.84	1.2	1.2	9.0	9.0		
								2	8.24		30.82		18.6		100.5		7.84		1.2		9.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		13:52	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						2	NA		NA		NA		NA		NA		NA		NA		NA		NA	
				M	1.2	1	8.23	8.24	30.76	30.76	18.2	18.2	102.8	102.8	8.06	8.07	0.9	0.9	7.0	7.5				
						2	8.24		30.75		18.2		102.7		8.07		0.9		8.0					
				B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						2	NA		NA		NA		NA		NA		NA		NA					
		14:03	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						2	NA		NA		NA		NA		NA		NA		NA		NA		NA	
				M	1.4	1	8.23	8.24	30.81	30.83	18.6	18.6	100.7	100.5	7.84	7.83	1.2	1.2	9.0	9.5				
						2	8.25		30.84		18.6		100.3		7.82		1.2		10.0					
				B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						2	NA		NA		NA		NA		NA		NA		NA					
		14:12	5.4	S	1.0	1	8.23	8.23	30.85	30.87	18.5	18.5	102.4	102.5	7.98	7.99	1.0	1.0	9.0	9.0				
						2	8.23		30.88		18.5		102.5		7.99		1.0		9.0					
				M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						2	NA		NA		NA		NA		NA		NA		NA					
				B	4.4	1	8.22	8.22	30.77	30.78	18.5	18.5	101.7	101.6	7.93	7.92	0.9	0.9	8.0	8.0				
						2	8.21		30.78		18.5		101.5		7.91		0.9		8.0					
		13:43	13.1	S	1.0	1	8.21	8.22	30.82	30.85	18.6	18.6	100.8	100.7	7.85	7.84	1.3	1.3	8.0	8.5				
						2	8.22		30.88		18.6		100.6		7.83		1.3		9.0					
				M	6.6	1	8.21	8.21	30.79	30.78	18.5	18.5	100.1	100.1	7.80	7.79	1.1	1.1	9.0	9.0				
						2	8.21		30.76		18.5		100.0		7.78		1.1		9.0					
				B	12.1	1	8.20	8.21	30.80	30.81	18.4	18.4	98.4	98.2	7.69	7.68	1.2	1.3	8.0	8.0				
						2	8.21		30.82		18.4		98.0		7.67		1.3		8.0					
		13:35	14.4	S	1.0	1	8.17	8.17	30.86	30.87	18.6	18.6	99.8	99.8	7.77	7.76	1.1	1.1	9.0	9.0				
						2	8.16		30.88		18.6		99.7		7.75		1.1		9.0					
				M	7.2	1	8.18	8.18	30.79	30.78	18.6	18.6	99.4	99.3	7.74	7.73	1.0	1.0	8.0	8.0				
						2	8.18		30.77		18.6		99.2		7.71		1.0		8.0					
				B	13.4	1	8.18	8.19	30.83	30.85	18.4	18.5	97.3	97.2	7.59	7.58	1.5	1.5	8.0	8.0				
						2	8.19		30.87		18.5		97.1		7.57		1.5		8.0					

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
24-Dec-20	Mid-Ebb	WMS-1N	Fine	07:45	4.5	S	1.0	1	8.20	8.20	30.68	30.68	18.6	18.6	99.1	99.2	7.72	7.73	0.8	0.8	6.0	6.0		
								2	8.20		30.68		18.6	18.6	99.3		7.74		0.8		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.5	1	8.20	8.20	30.69	30.69	18.5	18.5	98.7	98.8	7.69	7.71	1.0	1.0	5.0	5.0		
								2	8.20		30.69		18.5	18.5	98.9		7.72		1.0		5.0			
		WMS-2N		07:37	4.6	S	1.0	1	8.20	8.20	30.60	30.60	18.6	18.6	98.5	98.6	7.67	7.68	0.8	0.8	6.0	6.0		
								2	8.20		30.60		18.6	18.6	98.7		7.68		0.8		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	3.6	1	8.20	8.20	30.72	30.72	18.5	18.5	99.0	99.1	7.73	7.74	0.9	1.0	5.0	5.0		
								2	8.20		30.72		18.5	18.5	99.2		7.75		1.0		5.0			
		WMS3		07:32	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.4	1	8.18	8.18	30.66	30.66	18.6	18.6	97.6	97.7	7.6	7.62	1.5	1.5	6.0	6.0		
								2	8.18		30.66		18.6	18.6	97.8		7.6		1.5		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS4		07:26	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.4	1	8.20	8.20	30.60	30.60	18.6	18.6	100.4	100.5	7.82	7.83	1.7	1.8	6.0	6.0		
								2	8.20		30.60		18.6	18.6	100.6		7.84		1.8		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS5		07:19	2.3	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.2	1	8.20	8.20	30.61	30.61	18.6	18.6	100.4	100.5	7.82	7.83	1.7	1.7	7.0	7.0		
								2	8.20		30.61		18.6	18.6	100.6		7.84		1.7		7.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS6		07:12	6.7	S	1.0	1	8.18	8.18	30.65	30.65	18.6	18.6	98.2	98.3	7.66	7.67	1.5	1.6	6.0	6.5		
								2	8.18		30.65		18.6	18.6	98.4		7.68		1.6		7.0			
						M	3.4	1	8.18	8.18	30.66	30.66	18.5	18.5	98.2	98.3	7.66	7.67	1.5	1.5	7.0	7.0		
								2	8.18		30.66		18.5	18.5	98.4		7.67		1.5		7.0			
						B	5.7	1	8.19	8.19	30.77	30.77	18.5	18.5	99.7	99.6	7.78	7.77	1.7	1.7	6.0	6.0		
								2	8.19		30.77		18.5	18.5	99.5		7.75		1.7		6.0			
		I2		06:50	16.0	S	1.0	1	8.14	8.14	30.61	30.61	18.6	18.6	99.4	99.3	7.75	7.74	1.4	1.4	8.0	8.0		
								2	8.14		30.61		18.6	18.6	99.2		7.73		1.4		8.0			
						M	8.0	1	8.16	8.16	30.61	30.61	18.6	18.6	99.3	99.4	7.74	7.75	1.1	1.1	7.0	7.5		
								2	8.16		30.61		18.6	18.6	99.5		7.76		1.1		8.0			
						B	15.0	1	8.16	8.16	30.62	30.62	18.6	18.6	98.8	98.9	7.70	7.71	1.2	1.3	7.0	7.0		
								2	8.16		30.62		18.6	18.6	99.0		7.72		1.3		7.0			
		C2		07:58	4.8	S	1.0	1	8.20	8.20	30.67	30.67	18.6	18.6	98.3	98.2	7.65	7.64	1.0	1.0	6.0	6.0		
								2	8.20		30.67		18.6	18.6	98.1		7.63		1.0		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.8	1	8.21	8.21	30.78	30.78	18.5	18.5	99.5	99.6	7.76	7.77	1.0	1.0	5.0	5.0		
								2	8.21		30.78		18.5	18.5	99.7		7.78		1.0		5.0			
		C3		07:04	16.2	S	1.0	1	8.19	8.19	30.61	30.61	18.6	18.6	99.8	99.7	7.78	7.77	1.8	1.8	5.0	5.0		
2	8.19							30.61		18.6	18.6	99.6		7.76		1.8		5.0						
M	8.1		1			8.18	8.18	30.61	30.61	18.6	18.6	99.2	99.3	7.73	7.74	1.7	1.7	8.0	7.5					
			2			8.18		30.61		18.6	18.6	99.4		7.75		1.7		7.0						
B	15.2		1			8.18	8.18	30.61	30.61	18.6	18.6	98.7	98.8	7.69	7.70	1.8	1.8	5.0	5.0					
			2			8.18		30.61		18.6	18.6	98.9		7.71		1.8		5.0						

Water Quality Monitoring Results

Date		Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
										Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
24-Dec-20	Mid-Flood	WMS-1N	Fine	13:35	4.1	S	1.0	1	8.22	8.22	30.66	30.66	18.8	18.8	99.9	99.8	7.75	7.74	0.9	0.9	5.0	5.5			
								2	8.22		30.66		18.8		99.7		7.73		0.9		6.0				
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
								2	NA		NA		NA		NA		NA		NA		NA				
						B	3.1	1	8.21	8.21	30.68	30.68	18.6	18.6	99.2	99.3	7.74	7.75	0.9	0.9	5.0	5.0			
								2	8.21		30.68		18.6		99.3		7.75		0.9		5.0				
				13:42	4.9	S	1.0	1	8.22	8.22	30.59	30.59	18.8	18.8	101.6	101.5	7.83	7.82	1.5	1.5	6.0	6.0			
								2	8.22		30.59		18.8		101.4		7.81		1.5		6.0				
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
								2	NA		NA		NA		NA		NA		NA		NA	NA			
						B	3.9	1	8.21	8.21	30.68	30.68	18.7	18.7	99.5	99.4	7.75	7.74	1.5	1.5	7.0	7.0			
								2	8.21		30.68		18.7		99.3		7.73		1.5		7.0				
				13:47	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA		NA	NA	
						M	1.4	1	8.21	8.21	30.64	30.64	18.7	18.7	100.4	100.3	7.81	7.80	1.5	1.5	5.0	5.5			
								2	8.21		30.64		18.7		100.2		7.79		1.5		6.0				
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
								2	NA		NA		NA		NA		NA		NA		NA		NA		
		13:54	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						2	NA		NA		NA		NA		NA		NA		NA		NA	NA			
				M	1.4	1	8.22	8.22	30.57	30.57	18.8	18.8	101.4	101.2	7.88	7.86	1.7	1.7	8.0	8.0					
						2	8.22		30.57		18.8		101.0		7.84		1.6		8.0						
				B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
						2	NA		NA		NA		NA		NA		NA		NA		NA				
		13:59	2.9	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						2	NA		NA		NA		NA		NA		NA		NA		NA	NA			
				M	1.5	1	8.22	8.22	30.59	30.59	18.7	18.7	101.8	101.7	7.91	7.90	1.7	1.7	6.0	6.0					
						2	8.22		30.59		18.7		101.6		7.89		1.7		6.0						
				B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
						2	NA		NA		NA		NA		NA		NA		NA		NA				
		14:05	6.8	S	1.0	1	8.22	8.22	30.61	30.61	18.8	18.8	101.8	101.8	7.90	7.90	1.6	1.6	7.0	7.0					
						2	8.22		30.61		18.8		101.8		7.90		1.6		7.0						
				M	3.4	1	8.21	8.21	30.65	30.65	18.7	18.7	99.6	99.5	7.75	7.74	1.5	1.5	5.0	5.0					
						2	8.21		30.65		18.7		99.4		7.73		1.5		5.0						
				B	5.8	1	8.22	8.22	30.74	30.74	18.5	18.5	102.8	102.7	8.00	7.99	1.7	1.7	7.0	7.0					
						2	8.22		30.74		18.5		102.6		7.98		1.7		7.0						
		14:11	13.0	S	1.0	1	8.22	8.22	30.56	30.56	19.0	19.0	101.8	101.7	7.88	7.87	1.8	1.8	6.0	6.0					
						2	8.22		30.56		19.0		101.6		7.86		1.8		6.0						
				M	6.5	1	8.22	8.22	30.55	30.55	18.7	18.7	101.1	101.0	7.86	7.86	1.7	1.7	5.0	5.0					
						2	8.22		30.55		18.7		100.9		7.85		1.7		5.0						
				B	12.0	1	8.22	8.22	30.63	30.63	18.6	18.6	100.9	100.7	7.85	7.83	1.7	1.7	7.0	7.0					
						2	8.22		30.63		18.6		100.5		7.81		1.7		7.0						
		14:28	18.0	S	1.0	1	8.22	8.22	30.59	30.59	19.1	19.1	101.4	101.3	7.83	7.82	1.7	1.7	7.0	7.0					
						2	8.22		30.59		19.1		101.2		7.81		1.7		7.0						
				M	9.0	1	8.22	8.22	30.61	30.61	18.6	18.6	100.30	100.2	7.81	7.80	1.7	1.7	6.0	6.0					
						2	8.22		30.61		18.6		100.00		7.78		1.7		6.0						
				B	17.0	1	8.21	8.21	30.63	30.63	18.6	18.6	99.7	99.6	7.75	7.75	1.8	1.8	5.0	5.0					
						2	8.21		30.63		18.6		99.5		7.75		1.8		5.0						

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
26-Dec-20	Mid-Ebb	WMS-1N	Fine	09:47	4.1	S	1.0	1	8.20	8.21	30.65	30.67	19.1	19.1	98.2	98.1	7.59	7.58	0.5	0.5	8.0	8.0		
								2	8.21		30.69		19.1		98.0		7.57		0.5		8.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.1	1	8.20	8.20	30.64	30.64	19.0	19.0	98.8	98.9	7.63	7.65	0.9	0.9	5.0	5.0		
								2	8.20		30.64		19.0		99.0		7.66		0.9		5.0			
		WMS-2N		09:40	4.3	S	1.0	1	8.19	8.19	30.65	30.66	19.0	19.0	99.0	99.3	7.66	7.66	0.6	0.6	6.0	6.0		
								2	8.19		30.67		19.0		99.6		7.65		0.6		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.3	1	8.20	8.21	30.68	30.70	19.0	19.0	98.7	98.6	7.64	7.63	0.6	0.6	5.0	5.0		
								2	8.21		30.72		19.0		98.5		7.62		0.6		5.0			
		WMS3		09:25	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.21	8.21	30.58	30.59	19.2	19.2	99.9	99.7	7.70	7.69	0.6	0.6	7.0	7.5		
								2	8.21		30.60		19.1		99.5		7.68		0.6		8.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS4		09:08	2.3	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.2	1	8.20	8.20	30.61	30.62	19.0	19.0	100.5	100.4	7.88	7.88	0.6	0.6	7.0	6.5		
								2	8.20		30.63		19.0		100.3		7.87		0.6		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS5		09:20	2.2	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.1	1	8.19	8.19	30.65	30.65	18.9	18.9	99.1	99.2	7.68	7.70	0.6	0.6	5.0	5.0		
								2	8.19		30.64		18.9		99.3		7.71		0.6		5.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
		WMS6		09:13	4.5	S	1.0	1	8.21	8.22	30.54	30.56	19.0	19.0	99.7	99.8	7.73	7.75	0.9	0.9	6.0	6.0		
								2	8.22		30.57		19.0		99.9		7.76		0.9		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.5	1	8.18	8.19	30.61	30.61	19.0	19.0	99.0	99.2	7.66	7.67	0.5	0.5	6.0	6.0		
								2	8.19		30.60		18.9		99.3		7.67		0.4		6.0			
		I2		08:55	14.0	S	1.0	1	8.18	8.18	30.50	30.50	19.0	19.0	99.2	99.3	7.65	7.66	0.7	0.7	6.0	6.0		
								2	8.18		30.50		19.0		99.4		7.66		0.7		6.0			
						M	7.0	1	8.20	8.20	30.55	30.56	19.0	19.0	98.3	98.4	7.63	7.63	0.7	0.7	5.0	5.0		
								2	8.20		30.56		19.0		98.4		7.63		0.7		5.0			
						B	13.0	1	8.21	8.21	30.62	30.62	18.9	18.9	97.8	97.7	7.56	7.55	0.7	0.7	6.0	6.0		
								2	8.20		30.61		18.9		97.6		7.54		0.7		6.0			
		C2		09:33	4.1	S	1.0	1	8.18	8.18	30.41	30.41	19.0	19.0	98.4	98.4	7.62	7.61	0.6	0.6	6.0	6.0		
								2	8.18		30.41		19.0		98.4		7.60		0.6		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	3.1	1	8.17	8.17	30.62	30.63	19.0	19.0	99.0	99.2	7.65	7.67	0.5	0.5	5.0	5.0		
								2	8.17		30.64		19.0		99.3		7.68		0.5		5.0			
		C3		08:47	15.0	S	1.0	1	8.19	8.19	30.61	30.63	19.0	19.0	101.2	101.3	7.82	7.82	0.6	0.6	5.0	5.0		
2	8.18		30.64					19.0	101.3		7.82		0.6		5.0									
M	7.5		1			8.20	8.20	30.62	30.62	19.0	19.0	100.7	100.6	7.80	7.79	0.6	0.6	5.0	5.0					
			2			8.20		30.61		18.9		100.5		7.77		0.6		5.0						
B	14.0		1			8.19	8.19	30.62	30.63	18.9	18.9	100.4	100.5	7.78	7.78	0.6	0.6	6.0	6.0					
			2			8.19		30.63		18.9		100.5		7.78		0.6		6.0						

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L	
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
26-Dec-20	Mid-Flood	WMS-1N	Fine	14:32	4.2	S	1.0	1	8.19	8.19	30.65	30.65	19.1	19.1	98.4	98.6	7.60	7.61	0.6	0.6	7.0	7.0
								2	8.19		30.65		19.1		98.7		7.62		0.6		7.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.2	1	8.21	8.21	30.66	30.67	19.0	19.0	98.7	98.9	7.63	7.65	0.8	0.8	6.0	6.0
								2	8.21		30.68		19.0		99.0		7.66		0.8		6.0	
		WMS-2N		14:37	4.3	S	1.0	1	8.19	8.19	30.63	30.64	19.0	19.0	98.6	98.5	7.63	7.62	0.6	0.6	4.0	4.0
								2	8.18		30.65		19.0		98.4		7.61		0.5		4.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.3	1	8.19	8.19	30.65	30.66	19.0	19.0	98.4	98.2	7.60	7.58	0.5	0.5	5.0	5.0
								2	8.19		30.67		19.0		98.0		7.56		0.5		5.0	
		WMS3		14:43	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.20	8.20	30.61	30.62	19.1	19.1	99.7	99.6	7.69	7.66	0.6	0.6	6.0	6.0
								2	8.20		30.62		19.1		99.4		7.63		0.6		6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS4		14:56	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.2	1	8.19	8.19	30.64	30.65	19.0	19.0	100.7	100.8	7.80	7.81	0.6	0.6	6.0	6.0
								2	8.19		30.65		19.0		100.9		7.82		0.6		6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS5		15:04	2.2	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.1	1	8.19	8.20	30.63	30.65	19.0	19.0	99.4	99.3	7.70	7.69	0.7	0.7	5.0	5.0
								2	8.20		30.66		19.0		99.2		7.68		0.7		5.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS6		14:50	4.7	S	1.0	1	8.20	8.21	30.57	30.59	19.0	19.0	99.5	99.6	7.69	7.70	0.9	0.9	6.0	6.0
								2	8.21		30.60		19.0		99.7		7.70		0.8		6.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.7	1	8.19	8.19	30.64	30.65	19.0	19.0	99.2	99.1	7.67	7.66	0.6	0.6	6.0	6.0
								2	8.19		30.65		19.0		99.0		7.65		0.6		6.0	
		I1		15:11	13.0	S	1.0	1	8.19	8.19	30.49	30.48	19.0	19.0	101.1	101.2	7.83	7.84	0.6	0.6	8.0	7.5
								2	8.19		30.47		19.0		101.3		7.85		0.6		7.0	
						M	6.5	1	8.19	8.19	30.60	30.62	19.0	19.0	101.1	101.3	7.82	7.84	0.5	0.6	6.0	6.0
								2	8.19		30.63		19.0		101.4		7.86		0.6		6.0	
						B	12.0	1	8.19	8.19	30.62	30.63	18.9	18.9	100.4	100.4	7.78	7.78	0.6	0.6	5.0	5.0
								2	8.18		30.64		18.9		100.4		7.77		0.6		5.0	
		C1		15:18	15.0	S	1.0	1	8.17	8.18	30.57	30.55	19.0	19.0	100.9	100.8	7.80	7.79	0.5	0.5	6.0	6.0
								2	8.18		30.53		19.0		100.6		7.77		0.5		6.0	
						M	7.5	1	8.16	8.16	30.59	30.58	19.0	19.0	101.1	100.9	7.83	7.82	0.5	0.6	6.0	6.0
								2	8.16		30.57		18.9		100.7		7.80		0.6		6.0	
						B	14.0	1	8.16	8.16	30.60	30.61	18.9	18.9	100.8	100.7	7.81	7.78	0.5	0.6	5.0	5.0
								2	8.16		30.62		18.9		100.5		7.74		0.6		5.0	

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
29-Dec-20	Mid-Ebb	WMS-1N	Fine	11:32	4.2	S	1.0	1	8.20	8.20	30.59	30.61	19.9	19.9	100.9	100.8	7.67	7.66	0.4	0.4	5.0	5.0		
								2	8.20		30.62		19.9		100.7		7.65		0.4		5.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.2	1	8.20	8.21	30.55	30.56	19.9	19.9	100.4	100.2	7.63	7.62	0.4	0.5	7.0	7.0		
								2	8.21		30.57		19.9		100.0		7.60		0.5		7.0			
		WMS-2N		11:27	4.2	S	1.0	1	8.20	8.22	30.55	30.55	19.8	19.9	101.3	101.5	7.72	7.73	0.2	0.3	5.0	5.0		
								2	8.23		30.54		19.9		101.7		7.74		0.3		5.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	3.2	1	8.20	8.21	30.55	30.54	19.8	19.8	101.1	101.2	7.71	7.72	0.5	0.5	7.0	7.0		
								2	8.21		30.53		19.8		101.3		7.73		0.5		7.0			
		WMS3		11:16	2.6	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.3	1	8.22	8.22	30.48	30.50	19.8	19.8	103.1	103.1	7.85	7.84	0.3	0.3	7.0	7.0		
								2	8.22		30.52		19.8		103.0		7.83		0.3		7.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS4		10:55	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.2	1	8.21	8.21	30.52	30.54	19.7	19.7	104.5	104.4	7.99	7.98	0.3	0.3	5.0	5.0		
								2	8.21		30.55		19.7		104.3		7.97		0.3		5.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS5		11:09	2.2	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.1	1	8.22	8.22	30.50	30.52	19.7	19.7	104.6	104.4	7.98	7.97	0.3	0.3	6.0	6.0		
								2	8.21		30.54		19.7		104.2		7.96		0.2		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS6		11:02	6.3	S	1.0	1	8.22	8.23	30.53	30.54	19.7	19.7	105.0	105.2	8.01	8.03	0.3	0.3	5.0	5.0		
								2	8.23		30.54		19.7		105.3		8.04		0.3		5.0			
						M	3.2	1	8.21	8.21	30.50	30.53	19.6	19.6	104.0	104.2	7.95	7.97	0.7	0.7	5.0	5.5		
								2	8.20		30.56		19.6		104.3		7.98		0.7		6.0			
						B	5.3	1	8.20	8.20	30.53	30.54	19.4	19.4	101.0	101.1	7.75	7.76	0.4	0.5	6.0	6.0		
								2	8.20		30.54		19.4		101.2		7.76		0.5		6.0			
		I2		10:37	15.0	S	1.0	1	8.20	8.21	30.52	30.53	19.6	19.6	104.4	104.6	8.00	8.02	0.3	0.3	6.0	6.0		
								2	8.21		30.54		19.6		104.7		8.03		0.3		6.0			
						M	7.5	1	8.20	8.20	30.52	30.52	19.5	19.5	102.5	102.4	7.87	7.86	0.4	0.4	6.0	6.5		
								2	8.20		30.51		19.4		102.2		7.85		0.4		7.0			
						B	14.0	1	8.19	8.18	30.50	30.50	19.4	19.4	101.7	101.7	7.81	7.81	0.3	0.3	6.0	6.0		
								2	8.17		30.50		19.4		101.6		7.80		0.3		6.0			
		C2		11:23	4.5	S	1.0	1	8.20	8.21	30.50	30.51	19.9	19.9	102.5	102.8	7.80	7.82	0.5	0.6	7.0	6.5		
								2	8.21		30.52		19.9		103.1		7.84		0.6		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	3.5	1	8.26	8.23	30.51	30.53	19.8	19.8	101.9	101.8	7.77	7.76	0.5	0.5	5.0	5.0		
								2	8.20		30.54		19.8		101.7		7.74		0.5		5.0			
		C3		10:21	14.0	S	1.0	1	8.16	8.16	30.53	30.54	19.8	19.9	104.5	104.5	7.96	7.95	2.9	2.9	5.0	4.5		
2	8.16							30.55		19.9		104.4		7.94		2.9		4.0						
M	7.0		1			8.16	8.16	30.51	30.54	19.5	19.5	101.7	101.8	7.80	7.81	10.8	10.8	20.0	20.0					
			2			8.15		30.57		19.5		101.9		7.81		10.8		20.0						
B	13.0		1			8.16	8.16	30.54	30.55	19.5	19.5	100.8	100.7	7.73	7.72	11.4	11.4	20.0	20.0					
			2			8.16		30.55		19.5		100.6		7.71		11.4		20.0						

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis				
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
29-Dec-20	Mid-Flood	WMS-1N	Fine	15:47	4.3	S	1.0	1	8.23	8.23	30.58	30.59	20.5	20.5	104.6	104.6	7.87	7.87	0.5	0.5	7.0	7.0	
								2	8.23	30.60	20.5	104.5	7.87	0.5	7.0								
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.3	1	8.23	8.23	30.53	30.53	20.5	20.5	104.5	104.5	7.85	7.86	0.5	0.5	6.0	6.0	
								2	8.23	30.52	20.4	104.4	7.87	0.5	6.0								
		WMS-2N		15:53	4.4	S	1.0	1	8.27	8.27	30.52	30.52	20.3	20.3	108.1	108.1	8.17	8.17	0.8	0.8	5.0	5.0	
								2	8.27	30.51	20.3	108.0	8.17	0.8	5.0								
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	3.4	1	8.26	8.27	30.48	30.49	20.2	20.2	104.0	104.1	7.87	7.88	0.9	0.9	5.0	5.5	
								2	8.27	30.50	20.2	104.2	7.88	0.9	6.0								
		WMS3		16:01	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.4	1	8.29	8.29	30.46	30.46	20.3	20.3	113.5	113.4	8.57	8.55	0.3	0.4	6.0	6.5	
								2	8.28	30.45	20.3	113.2	8.53	0.4	7.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		WMS4		16:23	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.3	1	8.27	8.27	30.44	30.46	19.8	19.9	108.2	108.3	8.24	8.25	0.5	0.5	7.0	7.0	
								2	8.27	30.47	19.9	108.3	8.25	0.4	7.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
		WMS5		16:17	2.3	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.2	1	8.26	8.27	30.39	30.40	19.9	19.9	107.4	107.5	8.17	8.18	0.4	0.4	7.0	7.5	
								2	8.27	30.41	19.9	107.5	8.18	0.4	8.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
		WMS6		16:09	6.5	S	1.0	1	8.27	8.27	30.54	30.52	20.3	20.3	110.5	110.6	8.34	8.36	0.5	0.6	6.0	6.0	
								2	8.27	30.50	20.3	110.7	8.37	0.6	6.0								
						M	3.3	1	8.25	8.26	30.56	30.57	19.9	19.9	107.9	107.8	8.21	8.20	0.5	0.5	6.0	6.0	
								2	8.26	30.57	19.9	107.7	8.19	0.4	6.0								
						B	5.5	1	8.25	8.25	30.52	30.54	19.8	19.8	107.6	107.7	8.20	8.21	0.5	0.5	7.0	7.0	
								2	8.25	30.56	19.8	107.8	8.22	0.5	7.0								
		I1		16:41	12.0	S	1.0	1	8.27	8.27	30.49	30.49	20.3	20.3	111.0	111.1	8.39	8.40	0.4	0.4	8.0	7.5	
								2	8.27	30.48	20.3	111.1	8.40	0.4	7.0								
						M	6.0	1	8.26	8.26	30.45	30.44	19.9	19.9	105.9	105.9	8.11	8.11	0.4	0.4	6.0	6.0	
								2	8.26	30.43	19.9	105.8	8.10	0.4	6.0								
						B	11.0	1	8.25	8.25	30.46	30.45	19.5	19.5	105.4	105.3	8.08	8.07	0.2	0.2	7.0	7.0	
								2	8.24	30.43	19.5	105.2	8.06	0.2	7.0								
		C1		16:50	16.0	S	1.0	1	8.25	8.26	30.46	30.47	20.0	20.1	107.4	107.4	8.15	8.15	0.4	0.5	7.0	6.5	
								2	8.26	30.47	20.1	107.3	8.15	0.5	6.0								
						M	8.0	1	8.26	8.26	30.45	30.46	19.8	19.8	107.1	107.3	8.13	8.14	0.5	0.5	6.0	6.0	
								2	8.26	30.46	19.8	107.4	8.14	0.5	6.0								
						B	15.0	1	8.25	8.25	30.41	30.41	19.8	19.8	105.6	105.5	8.10	8.09	0.7	0.7	6.0	6.0	
								2	8.25	30.40	19.8	105.4	8.07	0.6	6.0								

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
31-Dec-20	Mid-Ebb	WMS-1N	Fine	11:49	4.9	S	1.0	1	8.09	8.10	30.71	30.72	16.6	16.6	100.0	99.9	8.10	8.09	0.7	0.8	4.0	4.0	
								2	8.10		30.72		16.6		99.8		8.08		0.8		4.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.9	1	8.16	8.17	30.65	30.64	16.3	16.3	98.7	98.6	8.03	8.02	1.1	1.1	6.0	6.0	
								2	8.18		30.63		16.3		98.4		8.00		1.1		6.0		
		WMS-2N		12:03	4.6	S	1.0	1	8.22	8.22	30.61	30.63	17.5	17.5	101.5	101.7	8.07	8.09	0.9	0.9	9.0	9.5	
								2	8.22		30.64		17.5		101.9		8.11		0.8		10.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.6	1	8.23	8.23	30.53	30.54	16.9	16.9	99.8	99.7	8.03	8.02	0.7	0.7	3.0	3.0	
								2	8.23		30.55		16.9		99.6		8.01		0.7		3.0		
		WMS3		12:18	2.6	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						M	1.3	1	8.25	8.25	30.63	30.64	16.6	16.6	100.1	100.3	8.10	8.12	1.0	1.1	5.0	5.0	
								2	8.25		30.64		16.6		100.4		8.13		1.1		5.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS4		12:31	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.4	1	8.26	8.26	30.62	30.62	18.1	18.2	101.7	101.6	7.99	7.98	0.8	0.8	4.0	4.0	
								2	8.26		30.62		18.2		101.5		7.97		0.8		4.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS5		12:45	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.2	1	8.27	8.27	30.59	30.58	17.9	17.9	101.5	101.4	8.02	8.01	0.6	0.6	3.0	3.0	
								2	8.27		30.57		17.9		101.3		8.00		0.6		3.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
		WMS6		12:57	6.4	S	1.0	1	8.27	8.27	30.61	30.62	17.8	17.8	101.9	102.1	8.06	8.08	0.7	0.8	4.0	4.0	
								2	8.27		30.62		17.8		102.2		8.09		0.8		4.0		
						M	3.2	1	8.27	8.27	30.60	30.60	17.5	17.5	101.7	101.6	8.04	8.03	0.6	0.7	6.0	6.0	
								2	8.27		30.60		17.5		101.5		8.02		0.7		6.0		
						B	5.4	1	8.28	8.28	30.55	30.56	16.4	16.4	100.2	100.3	7.86	7.87	1.4	1.4	9.0	9.0	
								2	8.28		30.56		16.3		100.4		7.88		1.4		9.0		
		I2		13:26	14.0	S	1.0	1	8.26	8.26	30.65	30.65	18.2	18.2	100.6	100.6	7.89	7.89	0.5	0.6	10.0	10.0	
								2	8.26		30.65		18.2		100.5		7.88		0.6		10.0		
						M	7.0	1	8.26	8.26	30.61	30.62	18.2	18.2	100.2	100.1	7.87	7.86	0.5	0.5	7.0	7.0	
								2	8.26		30.62		18.2		100.0		7.85		0.5		7.0		
						B	13.0	1	8.25	8.25	30.60	30.59	18.2	18.2	100.0	99.9	7.85	7.84	0.6	0.7	9.0	9.0	
								2	8.25		30.58		18.1		99.7		7.82		0.7		9.0		
		C2		13:12	4.7	S	1.0	1	8.25	8.25	30.72	30.73	16.8	16.8	101.6	101.5	8.19	8.18	0.8	0.9	4.0	4.0	
								2	8.25		30.74		16.8		101.3		8.16		0.9		4.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		
						B	3.7	1	8.24	8.24	30.62	30.62	16.1	16.1	97.8	97.8	7.99	7.99	1.6	1.6	11.0	11.0	
								2	8.24		30.62		16.1		97.7		7.98		1.6		11.0		
		C3		13:38	13.5	S	1.0	1	8.27	8.27	30.61	30.61	17.9	18.0	101.0	101.2	7.97	7.99	0.6	0.6	12.0	12.0	
2	8.27							30.60	18.0		101.4		8.01		0.6		12.0						
M	6.8					1	8.26	8.26	30.58	30.58	18.0	18.0	100.5	100.4	7.92	7.91	0.7	0.7	9.0	9.0			
						2	8.26		30.58		18.0		100.3		7.90		0.7		9.0				
B	12.5					1	8.26	8.26	30.56	30.55	17.9	17.9	100.1	100.0	7.89	7.88	1.5	1.5	4.0	4.0			
						2	8.26		30.54		17.9		99.8		7.86		1.5		4.0				

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
31-Dec-20	Mid-Flood	WMS-1N	Fine	16:48	5.8	S	1.0	1	8.17	8.17	30.70	30.71	16.5	16.5	99.3	99.5	8.05	8.07	1.3	1.4	8.0	8.0		
								2	8.17		30.72		16.5		99.6		8.08		1.4		8.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						B	4.8	1	8.19	8.19	30.66	30.64	16.0	16.1	97.5	97.4	7.98	7.97	1.9	2.0	10.0	9.5		
								2	8.19		30.62		16.1		97.2		7.95		2.0		9.0			
		WMS-2N		16:59	5.5	S	1.0	1	8.23	8.23	30.72	30.73	17.3	17.3	101.7	101.9	8.13	8.15	0.6	0.7	10.0	10.0		
								2	8.23		30.73		17.3		102.0		8.16		0.7		10.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						B	4.5	1	8.24	8.24	30.59	30.60	16.4	16.5	99.4	99.3	8.07	8.06	1.3	1.4	5.0	5.0		
								2	8.24		30.61		16.5		99.1		8.04		1.4		5.0			
		WMS3		17:11	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.26	8.26	30.58	30.57	16.8	16.8	102.9	102.7	8.30	8.28	1.0	1.0	4.0	4.0		
								2	8.26		30.56		16.8		102.5		8.26		1.0		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS4		17:25	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.26	8.26	30.34	30.34	17.2	17.2	98.2	98.3	7.87	7.88	1.0	1.0	3.0	3.0		
								2	8.26		30.33		17.1		98.3		7.88		1.0		3.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS5		17:37	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.27	8.27	30.57	30.57	17.7	17.7	102.3	102.2	8.12	8.11	0.6	0.6	6.0	6.0		
								2	8.27		30.57		17.6		102.1		8.10		0.6		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS6		17:48	7.0	S	1.0	1	8.26	8.26	30.62	30.62	17.8	17.8	101.9	101.5	8.07	8.08	0.6	0.6	4.0	4.0		
								2	8.26		30.62		17.8		101.1		8.09		0.6		4.0			
						M	3.5	1	8.27	8.27	30.58	30.59	17.1	17.1	102.3	102.2	8.20	8.19	0.6	0.6	4.0	4.5		
								2	8.27		30.59		17.1		102.1		8.18		0.6		5.0			
						B	6.0	1	8.26	8.26	30.64	30.64	16.2	16.2	98.8	98.6	8.07	8.05	1.6	1.6	4.0	4.0		
								2	8.26		30.64		16.1		98.4		8.03		1.6		4.0			
		I1		18:01	13.0	S	1.0	1	8.26	8.26	30.63	30.63	18.2	18.2	100.7	100.6	7.91	7.90	0.8	0.8	6.0	6.5		
								2	8.26		30.63		18.2		100.4		7.88		0.8		7.0			
						M	6.5	1	8.25	8.25	30.62	30.62	18.2	18.2	100.5	100.6	7.89	7.90	0.7	0.7	4.0	4.5		
								2	8.25		30.62		18.2		100.6		7.90		0.7		5.0			
						B	12.0	1	8.25	8.25	30.59	30.59	18.1	18.2	100.3	100.2	7.88	7.87	0.6	0.6	4.0	4.0		
								2	8.25		30.58		18.2		100.0		7.85		0.6		4.0			
		C1		18:16	16.0	S	1.0	1	8.26	8.26	30.63	30.62	18.2	18.2	100.4	100.4	7.88	7.88	0.5	0.6	5.0	5.0		
								2	8.26		30.61		18.2		100.3		7.87		0.6		5.0			
						M	8.0	1	8.26	8.26	30.62	30.62	18.2	18.2	99.9	99.8	7.85	7.84	0.6	0.6	15.0	15.0		
								2	8.26		30.62		18.1		99.7		7.83		0.6		15.0			
						B	15.0	1	8.26	8.26	30.60	30.60	18.1	18.1	99.4	99.3	7.81	7.80	0.7	0.7	6.0	6.5		
								2	8.26		30.59		18.1		99.1		7.78		0.7		7.0			

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L	
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
2-Jan-21	Mid-Ebb	WMS-1N	Fine	14:19	5.6	S	1.0	1	8.28	8.28	30.69	30.70	16.5	16.5	101.3	101.6	8.21	8.23	0.7	0.7	7.0	7.0
								2	8.27		30.71		16.5		101.9		8.25		0.7		7.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.6	1	8.26	8.27	30.71	30.71	16.5	16.5	102.4	102.6	8.26	8.26	0.5	0.5	10.0	10.0
								2	8.27		30.70		16.5		102.8		8.25		0.5		10.0	
		WMS-2N		14:08	5.8	S	1.0	1	8.29	8.29	30.35	30.35	17.0	17.0	105.7	105.2	8.48	8.47	0.4	0.4	8.0	8.0
								2	8.29		30.34		17.0		104.7		8.45		0.4		8.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.8	1	8.28	8.28	30.52	30.51	16.7	16.7	100.8	100.9	8.14	8.14	0.7	0.7	6.0	6.0
								2	8.28		30.50		16.7		100.9		8.13		0.7		6.0	
		WMS3		13:56	1.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	0.9	1	8.27	8.26	30.67	30.67	17.1	17.2	104.2	104.0	8.34	8.33	0.4	0.4	11.0	11.0
								2	8.25		30.66		17.2		103.8		8.31		0.4		11.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS4		13:09	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.26	8.26	30.95	30.95	17.1	17.1	106.2	106.0	8.49	8.47	0.7	0.7	9.0	9.0
								2	8.25		30.94		17.1		105.8		8.45		0.7		9.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS5		13:32	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.28	8.28	31.19	31.18	17.1	17.1	107.0	107.2	8.60	8.61	0.5	0.5	9.0	9.0
								2	8.27		31.17		17.1		107.4		8.62		0.5		9.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS6		13:43	5.4	S	1.0	1	8.28	8.28	31.23	31.25	17.1	17.1	106.9	107.2	8.28	8.28	0.5	0.5	9.0	9.0
								2	8.27		31.26		17.1		107.4		8.28		0.5		9.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	4.4	1	8.27	8.26	30.64	30.64	17.2	17.2	101.9	102.2	8.28	8.28	0.4	0.4	10.0	10.0
								2	8.25		30.64		17.2		102.4		8.28		0.4		10.0	
		I2		12:49	16.0	S	1.0	1	8.27	8.27	31.03	31.04	17.0	17.0	107.1	107.0	8.58	8.57	0.5	0.5	12.0	12.0
								2	8.27		31.04		17.0		106.9		8.56		0.5		12.0	
						M	8.0	1	8.25	8.25	30.69	30.68	17.5	17.5	104.5	104.7	8.32	8.34	0.5	0.5	5.0	5.0
								2	8.24		30.66		17.5		104.8		8.35		0.5		5.0	
						B	15.0	1	8.25	8.26	30.67	30.67	17.5	17.5	103.8	103.6	8.26	8.24	0.4	0.4	4.0	4.0
								2	8.26		30.66		17.5		103.4		8.21		0.4		4.0	
		C2		14:26	4.9	S	1.0	1	8.29	8.29	31.10	31.20	16.1	16.1	104.0	104.4	8.48	8.51	0.9	0.9	3.0	3.5
								2	8.28		31.30		16.1		104.8		8.53		0.9		4.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.9	1	8.28	8.28	30.76	30.77	16.6	16.6	102.4	102.5	8.28	8.30	0.3	0.3	10.0	10.0
								2	8.27		30.77		16.5		102.6		8.31		0.3		10.0	
		C3		12:58	16.2	S	1.0	1	8.25	8.25	30.76	30.77	17.4	17.4	103.6	103.9	8.25	8.26	0.5	0.5	9.0	9.0
2	8.24		30.77					17.4	104.1		8.26		0.5		9.0							
M	8.1		1			8.25	8.25	30.68	30.67	17.5	17.5	102.3	102.6	8.14	8.15	0.4	0.4	4.0	4.0			
			2			8.25		30.66		17.5		102.8		8.16		0.4		4.0				
B	15.2		1			8.24	8.25	30.67	30.67	17.5	17.5	102.1	102.3	8.12	8.13	0.4	0.4	12.0	12.0			
			2			8.26		30.67		17.5		102.4		8.13		0.4		12.0				

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis								
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L								
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.							
2-Jan-21	Mid-Flood	WMS-1N	Fine	18:30	5.3	S	1.0	1	8.26	8.26	30.58	30.59	16.5	16.5	102.5	102.7	8.31	8.33	0.4	0.4	12.0								
								2	8.26		30.59		16.5		102.9		8.35		0.4		12.0								
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						B	4.3	1	8.25	8.25	30.68	30.69	16.6	16.6	103.6	103.8	8.40	8.41	0.6	0.6	5.0								
								2	8.25		30.70		16.6		103.9		8.42		0.6		5.0	5.0							
		WMS-2N		18:19	5.6	S	5.6	1	8.25	8.25	30.36	30.37	17.1	17.1	104.2	104.7	8.36	8.38	0.4	0.4	11.0	11.0							
								2	8.25		30.37		17.1		105.2		8.39		0.4		11.0								
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
						B	4.6	1	8.24	8.24	30.56	30.56	16.7	16.7	101.6	101.9	8.18	8.22	0.6	0.6	12.0	12.0							
								2	8.24		30.55		16.7		102.1		8.26		0.6		12.0								
		WMS3		18:04	1.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA					
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
						M	0.9	1	8.25	8.25	30.64	30.65	17.1	17.1	103.8	104.0	8.28	8.30	0.5	0.5	9.0	9.0							
								2	8.25		30.66		17.0		104.2		8.31		0.5		9.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS4		17:38	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.3	1	8.24	8.25	30.86	30.87	17.2	17.2	105.4	105.1	8.42	8.40	0.4	0.4	10.0	10.0							
								2	8.26		30.88		17.2		104.8		8.38		0.4		10.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS5		17:45	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.4	1	8.25	8.26	31.04	31.05	16.7	16.6	106.7	106.1	8.39	8.37	0.5	0.5	4.0	4.0							
								2	8.26		31.05		16.4		105.4		8.35		0.5		4.0								
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS6		17:59	5.6	S	1.0	1	8.25	8.25	31.26	31.27	16.6	16.6	105.4	105.6	8.25	8.26	0.5	0.5	4.0	4.0							
								2	8.25		31.27		16.6		105.8		8.26		0.5		4.0								
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	4.6	1	8.28	8.27	30.67	30.66	16.4	16.4	101.4	101.9	8.25	8.25	0.4	0.4	4.0	4.0							
								2	8.26		30.65		16.4		102.4		8.24		0.4		4.0								
		I1		16:20	7.9	S	1.0	1	8.26	8.27	30.79	30.80	17.4	17.4	105.7	105.3	8.42	8.40	0.4	0.4	4.0	4.0							
								2	8.27		30.81		17.3		104.9		8.38		0.4		4.0								
						M	4.0	1	8.27	8.27	30.69	30.70	17.5	17.5	104.1	104.5	8.26	8.27	0.5	0.5	7.0	7.0							
								2	8.26		30.70		17.5		104.8		8.28		0.5		7.0								
						B	6.9	1	8.25	8.25	30.67	30.67	17.5	17.5	103.5	103.8	8.24	8.27	0.4	0.4	9.0	9.5							
								2	8.24		30.66		17.5		104.1		8.29		0.4		10.0								
		C1		16:45	15.0	S	1.0	1	8.17	8.17	30.68	30.68	17.6	17.6	102.2	102.3	8.12	8.13	0.6	0.6	6.0	6.0							
								2	8.17		30.67		17.6		102.4		8.13		0.6		6.0								
						M	7.5	1	8.19	8.19	30.67	30.67	17.6	17.6	102.1	102.3	8.11	8.12	0.5	0.5	4.0	4.0							
								2	8.19		30.66		17.6		102.4		8.12		0.5		4.0								
						B	14.0	1	8.18	8.18	30.68	30.67	17.6	17.6	101.4	101.7	8.08	8.09	0.5	0.5	3.0	3.5							
								2	8.17		30.66		17.6		102.0		8.10		0.5		4.0								

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
5-Jan-21	Mid-Ebb	WMS-1N	Fine	15:30	4.1	S	1.0	1	8.35	8.35	30.68	30.67	18.1	18.2	124.5	124.5	9.78	9.78	0.4	0.4	5.0	5.0	
								2	8.35		30.66		18.2		124.5		9.78		0.4		5.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.1	1	8.34	8.34	30.68	30.68	18.0	18.0	122.9	122.9	9.69	9.69	0.4	0.4	5.0	5.0	
								2	8.34		30.67		18.0		122.9		9.69		0.4		5.0		
		WMS-2N		15:46	4.7	S	1.0	1	8.35	8.35	30.66	30.66	18.2	18.2	124.4	124.3	9.77	9.77	0.4	0.4	4.0	4.0	
								2	8.35		30.66		18.1		124.1		9.76		0.3		4.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.7	1	8.34	8.34	30.67	30.68	17.9	18.0	122.6	122.6	9.67	9.67	0.4	0.4	3.0	3.5	
								2	8.34		30.68		18.0		122.5		9.66		0.4		4.0		
		WMS3		16:03	2.2	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.1	1	8.41	8.41	30.69	30.70	18.5	18.5	138.2	138.4	10.79	10.80	0.5	0.5	10.0	10.0	
								2	8.41		30.70		18.5		138.5		10.81		0.5		10.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS4		16:15	2.3	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.2	1	8.39	8.39	30.69	30.69	18.1	18.1	133.7	132.5	10.51	10.41	0.3	0.3	5.0	5.0	
								2	8.39		30.68		18.1		131.2		10.30		0.3		5.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS5		16:28	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.3	1	8.41	8.41	30.69	30.70	18.3	18.4	139.7	138.4	10.92	10.82	0.4	0.4	4.0	4.0	
								2	8.41		30.70		18.4		137.1		10.72		0.4		4.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS6		16:43	7.6	S	1.0	1	8.43	8.43	30.70	30.69	18.4	18.4	141.8	142.3	11.10	11.15	1.3	1.2	3.0	3.0	
								2	8.43		30.67		18.3		142.7		11.19		1.1		3.0		
						M	3.8	1	8.41	8.41	30.69	30.69	18.1	18.2	132.1	133.8	10.36	10.51	0.4	0.5	5.0	5.0	
								2	8.40		30.68		18.2		135.5		10.66		0.5		5.0		
						B	6.6	1	8.40	8.39	30.69	30.70	18.1	18.1	133.5	132.4	10.45	10.39	0.2	0.3	10.0	10.0	
								2	8.38		30.70		18.1		131.3		10.33		0.3		10.0		
		I2		17:10	15.3	S	1.0	1	8.41	8.41	30.69	30.69	18.4	18.4	136.6	137.0	10.67	10.70	0.4	0.4	10.0	10.0	
								2	8.41		30.69		18.4		137.3		10.72		0.4		10.0		
						M	7.7	1	8.37	8.37	30.69	30.70	17.9	17.9	126.1	125.7	9.94	9.91	0.3	0.3	5.0	5.0	
								2	8.36		30.70		17.9		125.2		9.88		0.2		5.0		
						B	14.3	1	8.31	8.29	30.72	30.72	17.8	17.8	104.1	103.5	8.22	8.18	1.0	1.0	12.0	11.5	
								2	8.26		30.72		17.8		102.8		8.13		0.9		11.0		
		C2		17:38	4.4	S	1.0	1	8.35	8.35	30.68	30.67	18.2	18.2	123.2	123.6	9.69	9.72	0.4	0.4	10.0	10.0	
								2	8.35		30.66		18.2		123.9		9.74		0.4		10.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.4	1	8.34	8.34	30.69	30.68	18.0	18.0	122.8	122.8	9.68	9.68	0.4	0.4	10.0	10.0	
								2	8.34		30.66		17.9		122.7		9.68		0.4		10.0		
		C3		18:04	16.1	S	1.0	1	8.42	8.42	30.67	30.69	18.3	18.4	139.6	140.0	10.97	10.98	1.6	1.5	14.0	13.5	
								2	8.42		30.70		18.5		140.4		10.98		1.4		13.0		
						M	8.1	1	8.38	8.35	30.66	30.68	18.0	18.0	120.8	119.6	9.46	9.41	0.6	0.6	9.0	9.0	
								2	8.32		30.69		17.9		118.4		9.35		0.6		9.0		
						B	15.1	1	8.24	8.24	30.76	30.76	17.8	17.8	99.7	99.6	7.88	7.87	0.8	0.8	4.0	3.5	
								2	8.24		30.76		17.8		99.4		7.86		0.7		3.0		

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis					
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
5-Jan-21	Mid-Flood	WMS-1N	Fine	10:00	4.6	S	1.0	1	8.33	8.33	30.70	30.70	18.0	18.0	116.6	116.8	9.20	9.21	0.3	0.3	7.0	7.0		
								2	8.33		30.70		18.0		117.0		9.21		0.3		7.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.6	1	8.32	8.32	30.68	30.69	17.9	17.9	117.4	117.6	9.27	9.29	0.4	0.4	10.0	10.0		
								2	8.32		30.69		17.9		117.7		9.30		0.3		10.0	10.0		
		WMS-2N		10:16	5.1	S	5.1	1	8.31	8.31	30.66	30.66	18.0	18.0	115.2	115.5	9.08	9.10	0.3	0.3	10.0	10.0		
								2	8.31		30.66		18.0		115.8		9.12		0.3		10.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	4.1	1	8.31	8.31	30.67	30.67	17.9	17.9	115.8	115.9	9.14	9.15	0.3	0.3	4.0	4.0		
								2	8.31		30.67		17.9		116.0		9.16		0.3		4.0			
		WMS3		10:33	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.2	1	8.32	8.32	30.70	30.70	18.0	18.0	117.2	118.2	9.24	9.32	0.5	0.5	4.0	4.0		
								2	8.32		30.70		18.0		119.1		9.39		0.5		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS4		10:45	2.6	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.3	1	8.36	8.36	30.70	30.71	18.1	18.1	127.9	127.9	10.04	10.05	0.5	0.5	5.0	4.5		
								2	8.35		30.71		18.1		127.9		10.06		0.4		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS5		10:58	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.4	1	8.34	8.34	30.71	30.71	18.0	18.0	123.0	123.3	9.69	9.70	0.4	0.4	12.0	12.0		
								2	8.34		30.70		18.0		123.5		9.71		0.4		12.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS6		11:13	8.0	S	1.0	1	8.29	8.29	30.67	30.68	18.0	18.1	116.8	117.1	9.20	9.21	0.4	0.4	4.0	4.0		
								2	8.29		30.69		18.1		117.3		9.22		0.4		4.0			
						M	4.0	1	8.29	8.30	30.68	30.69	17.9	17.9	116.6	116.6	9.20	9.21	0.3	0.3	3.0	3.0		
								2	8.30		30.69		17.9		116.6		9.21		0.3		3.0			
						B	7.0	1	8.30	8.30	30.68	30.69	17.7	17.8	118.5	118.0	9.39	9.33	0.3	0.3	3.0	3.0		
								2	8.30		30.69		17.9		117.5		9.27		0.3		3.0			
		I1		11:38	14.5	S	1.0	1	8.32	8.33	30.69	30.70	18.0	18.0	125.8	125.8	9.90	9.90	0.4	0.5	11.0	10.5		
								2	8.33		30.70		18.0		125.7		9.89		0.5		10.0			
						M	7.3	1	8.31	8.31	30.70	30.70	18.0	18.0	121.0	120.9	9.54	9.53	0.3	0.3	11.0	10.5		
								2	8.31		30.70		18.0		120.8		9.52		0.2		10.0			
						B	13.5	1	8.29	8.29	30.70	30.71	17.9	17.9	115.1	115.6	9.11	9.14	0.3	0.3	8.0	8.0		
								2	8.29		30.71		17.9		116.1		9.16		0.3		8.0			
		C1		12:08	18.6	S	1.0	1	8.25	8.26	30.69	30.69	17.9	17.9	119.6	119.7	9.43	9.44	0.2	0.3	8.0	8.0		
								2	8.27		30.69		17.9		119.7		9.44		0.3		8.0			
						M	9.3	1	8.28	8.28	30.69	30.69	17.9	17.9	118.0	118.1	9.29	9.31	0.3	0.3	13.0	12.5		
								2	8.28		30.69		17.9		118.1		9.33		0.3		12.0			
						B	17.6	1	8.26	8.27	30.71	30.70	17.9	17.9	114.2	113.7	9.03	8.97	0.2	0.3	10.0	10.0		
								2	8.27		30.69		17.9		113.1		8.91		0.3		10.0			

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis					
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
7-Jan-21	Mid-Ebb	WMS-1N	Windy	18:00	5.1	S	1.0	1	8.40	8.40	30.70	30.70	18.0	18.0	121.1	121.2	9.54	9.55	0.8	0.8	6.0	5.5		
								2	8.40		30.70		18.0		121.3		9.56		0.8		5.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	4.1	1	8.40	8.40	30.70	30.70	18.0	18.0	121.0	121.2	9.54	9.56	0.8	0.8	5.0	5.0		
								2	8.40		30.70		18.0		121.3		9.57		0.8		5.0			
		WMS-2N		18:08	5.6	S	1.0	1	8.41	8.41	30.71	30.71	18.0	18.0	123.8	123.7	9.76	9.75	0.5	0.6	6.0	6.0		
								2	8.41		30.71		18.0		123.6		9.74		0.6		6.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	4.6	1	8.42	8.42	30.72	30.72	18.0	18.0	125.7	125.8	9.91	9.92	0.6	0.6	8.0	8.0		
								2	8.42		30.72		18.0		125.9		9.93		0.6		8.0			
		WMS3		18:20	1.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
						M	0.9	1	8.43	8.43	30.72	30.72	18.0	18.0	125.6	125.7	9.89	9.91	0.8	0.9	4.0	4.0		
								2	8.43		30.72		18.0		125.8		9.92		0.9		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS4		18:28	2.6	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.3	1	8.44	8.44	30.24	30.24	18.0	18.0	124.1	124.2	9.77	9.78	0.7	0.7	4.0	4.0		
								2	8.44		30.24		18.0		124.3		9.79		0.7		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS5		18:35	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						M	1.4	1	8.45	8.45	30.24	30.24	18.0	18.0	124.1	124.2	9.77	9.78	0.7	0.8	4.0	4.0		
								2	8.45		30.24		18.0		124.3		9.79		0.8		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
		WMS6		18:42	7.8	S	1.0	1	8.44	8.44	30.81	30.81	17.9	17.9	123.6	123.5	9.75	9.73	0.6	0.6	5.0	5.0		
								2	8.44		30.81		17.9		123.4		9.70		0.6		5.0			
						M	3.9	1	8.44	8.44	30.75	30.75	18.0	18.0	123.7	123.8	9.74	9.75	0.5	0.5	4.0	4.0		
								2	8.44		30.75		18.0		123.9		9.76		0.5		4.0			
						B	6.8	1	8.44	8.44	30.75	30.75	18.0	18.0	123.6	123.7	9.73	9.74	0.5	0.5	6.0	6.5		
								2	8.44		30.75		18.0		123.8		9.75		0.5		7.0			
		I2		19:09	16.0	S	1.0	1	8.42	8.42	30.80	30.80	17.9	17.9	125.7	125.8	9.92	9.93	0.6	0.6	5.0	4.5		
								2	8.42		30.80		17.9		125.8		9.94		0.6		4.0			
						M	8.0	1	8.43	8.43	30.77	30.77	17.9	17.9	125.7	125.8	9.92	9.93	0.7	0.7	4.0	4.0		
								2	8.43		30.77		17.9		125.8		9.94		0.7		4.0			
						B	15.0	1	8.43	8.44	30.77	30.77	17.9	17.9	125.6	125.5	9.91	9.90	0.8	0.8	4.0	4.0		
								2	8.44		30.77		17.9		125.4		9.88		0.8		4.0			
		C2		18:13	4.6	S	1.0	1	8.44	8.44	30.72	30.72	18.0	18.0	124.8	124.7	9.83	9.82	0.6	0.7	11.0	11.0		
								2	8.44		30.72		18.0		124.6		9.81		0.7		11.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
						B	3.6	1	8.43	8.43	30.72	30.72	18.0	18.0	125.0	125.0	9.85	9.83	0.6	0.6	13.0	13.0		
								2	8.43		30.72		18.0		124.9		9.80		0.6		13.0			
		C3		18:56	16.4	S	1.0	1	8.44	8.44	30.77	30.77	17.9	17.9	123.5	123.4	9.74	9.74	0.5	0.5	11.0	11.0		
2	8.44							30.77		17.9		123.3		9.73		0.5		11.0						
M	8.2		1			8.44	8.44	30.76	30.76	18.0	18.0	123.9	123.8	9.77	9.76	0.7	0.7	11.0	11.0					
			2			8.44		30.76		18.0		123.6		9.74		0.7		11.0						
B	15.4		1			8.43	8.43	30.78	30.78	18.0	18.0	123.7	123.6	9.75	9.75	0.7	0.7	10.0	10.0					
			2			8.43		30.78		18.0		123.5		9.74		0.7		10.0						

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
7-Jan-21	Mid-Flood	WMS-1N	Fine	13:29	5.3	S	1.0	1	8.38	8.38	30.73	30.72	18.0	18.0	118.3	118.6	9.32	9.34	0.6	0.6	10.0	10.0	
								2	8.38		30.70		18.0		118.8		9.35		0.6		10.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
						B	4.3	1	8.38	8.38	30.70	30.70	18.0	18.0	118.9	118.6	9.36	9.34	0.5	0.5	10.0	10.0	
								2	8.38		30.69		18.0		118.2		9.31		0.5		10.0		
		WMS-2N		13:19	5.8	S	5.8	1	8.41	8.41	30.69	30.69	18.0	18.0	123.7	124.0	9.76	9.77	0.6	0.6	5.0	5.0	
								2	8.41		30.69		18.0		124.2		9.78		0.6		5.0		
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA		NA		NA		NA		NA		NA		NA		NA
						B	4.8	1	8.41	8.41	30.69	30.68	18.0	18.0	123.9	123.5	9.77	9.73	0.6	0.6	5.0	5.0	
								2	8.41		30.67		18.0		123.1		9.68		0.6		5.0		
		WMS3		13:12	1.9	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.0	1	8.43	8.43	30.74	30.74	17.9	17.9	123.3	123.0	9.72	9.71	0.8	0.8	9.0	9.0	
								2	8.42		30.74		17.9		122.6		9.69		0.8		9.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
		WMS4		13:06	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.4	1	8.43	8.43	30.73	30.73	18.0	18.0	120.0	120.1	9.45	9.46	0.5	0.5	10.0	10.0	
								2	8.42		30.73		18.0		120.2		9.46		0.4		10.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
		WMS5		13:00	2.8	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
						M	1.4	1	8.44	8.44	30.74	30.74	18.0	18.0	120.1	120.0	9.46	9.45	0.5	0.5	4.0	4.0	
								2	8.43		30.73		18.0		119.9		9.44		0.4		4.0		
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA
		WMS6		12:43	8.0	S	1.0	1	8.40	8.41	30.72	30.72	17.9	17.9	119.0	120.3	9.38	9.49	0.4	0.5	11.0	11.0	
								2	8.41		30.72		17.9		121.6		9.59		0.5		11.0		
						M	4.0	1	8.41	8.41	30.73	30.73	17.9	17.9	122.3	122.0	9.65	9.64	0.5	0.5	9.0	9.0	
								2	8.41		30.72		17.9		121.7		9.62		0.5		9.0		
						B	7.0	1	8.42	8.42	30.73	30.74	17.9	17.9	124.3	122.6	9.81	9.68	0.4	0.5	11.0	11.0	
								2	8.42		30.74		17.9		120.8		9.54		0.5		11.0		
		I1		12:28	7.6	S	1.0	1	8.41	8.41	30.73	30.73	17.9	18.0	120.3	119.4	9.49	9.41	0.4	0.5	14.0	13.5	
								2	8.41		30.73		18.0		118.5		9.33		0.5		13.0		
						M	3.8	1	8.41	8.41	30.73	30.73	18.0	18.0	118.9	118.9	9.38	9.37	0.4	0.5	11.0	11.0	
								2	8.41		30.73		18.0		118.8		9.36		0.5		11.0		
						B	6.6	1	8.41	8.41	30.73	30.73	17.9	18.0	118.4	118.6	9.34	9.35	0.5	0.5	12.0	12.0	
								2	8.41		30.73		18.0		118.7		9.36		0.5		12.0		
		C1		12:05	16.0	S	1.0	1	8.40	8.40	30.74	30.74	17.9	17.9	120.6	121.2	9.51	9.55	0.4	0.4	10.0	10.0	
								2	8.40		30.74		17.9		121.7		9.59		0.4		10.0		
						M	8.0	1	8.37	8.37	30.75	30.76	17.8	17.9	116.0	115.9	9.16	9.15	0.5	0.5	13.0	12.5	
								2	8.37		30.76		17.9		115.7		9.13		0.5		12.0		
						B	15.0	1	8.34	8.35	30.81	30.81	17.8	17.8	113.3	112.9	8.95	8.91	0.3	0.3	10.0	10.0	
								2	8.35		30.81		17.8		112.4		8.87		0.3		10.0		

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis		
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L		
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
9-Jan-21	Mid-Ebb	WMS-1N	Fine	08:53	4.1	S	1.0	1	8.21	8.21	30.58	30.60	16.5	16.5	113.4	113.6	9.17	9.18	0.7	0.7	5.0	5.0	
								2	8.21	8.21	30.62	30.60	16.5	16.5	113.7	113.6	9.19	9.18	0.7	0.7	5.0	5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.1	1	8.22	8.22	30.63	30.63	16.5	16.5	113.0	113.1	9.15	9.15	0.7	0.8	5.0	5.0	
								2	8.22	8.22	30.63	30.63	16.4	16.5	113.1	113.1	9.15	9.15	0.8	0.8	5.0	5.0	
		WMS-2N		08:44	4.3	S	1.0	1	8.23	8.23	30.57	30.56	16.1	16.1	115.6	115.5	9.37	9.36	0.7	0.7	5.0	5.0	
								2	8.23	8.23	30.55	30.56	16.1	16.1	115.3	115.5	9.35	9.36	0.6	0.6	5.0	5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.3	1	8.23	8.23	30.65	30.66	15.8	15.8	114.7	114.5	9.31	9.30	0.6	0.6	6.0	6.0	
								2	8.23	8.23	30.67	30.66	15.8	15.8	114.2	114.5	9.28	9.30	0.6	0.6	6.0	6.0	
		WMS3		08:34	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.2	1	8.23	8.23	30.67	30.65	16.2	16.2	113.4	113.4	9.23	9.23	0.6	0.6	6.0	6.0	
								2	8.23	8.23	30.63	30.65	16.2	16.2	113.3	113.4	9.23	9.23	0.6	0.6	6.0	6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS4		07:59	2.4	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.2	1	8.23	8.23	30.65	30.65	16.5	16.5	114.2	114.1	9.26	9.25	0.6	0.7	7.0	7.0	
								2	8.23	8.23	30.65	30.65	16.5	16.5	114.0	114.1	9.24	9.25	0.7	0.7	7.0	7.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS5		07:53	2.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						M	1.0	1	8.23	8.24	30.60	30.62	16.5	16.5	114.8	114.8	9.31	9.31	0.7	0.7	6.0	6.0	
								2	8.25	8.24	30.63	30.62	16.5	16.5	114.7	114.8	9.31	9.31	0.7	0.7	6.0	6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		WMS6		08:07	6.0	S	1.0	1	8.23	8.23	30.73	30.73	16.4	16.4	114.5	114.6	9.31	9.32	0.8	0.8	7.0	6.5	
								2	8.23	8.23	30.72	30.73	16.4	16.4	114.7	114.6	9.33	9.32	0.8	0.8	6.0	6.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	5.0	1	8.22	8.22	30.59	30.60	16.3	16.3	114.0	114.0	9.28	9.28	0.7	0.7	6.0	6.0	
								2	8.22	8.22	30.61	30.60	16.3	16.3	114.0	114.0	9.27	9.28	0.6	0.6	6.0	6.0	
		I2		07:47	15.0	S	1.0	1	8.23	8.23	30.54	30.56	16.3	16.3	114.6	114.5	9.33	9.32	0.6	0.6	11.0	10.5	
								2	8.23	8.23	30.57	30.56	16.3	16.3	114.3	114.5	9.30	9.32	0.6	0.6	10.0	10.0	
						M	7.5	1	8.23	8.23	30.53	30.54	16.3	16.3	114.7	114.5	9.34	9.33	0.8	0.8	8.0	8.0	
								2	8.23	8.23	30.54	30.54	16.3	16.3	114.3	114.5	9.31	9.33	0.8	0.8	8.0	8.0	
						B	14.0	1	8.23	8.23	30.53	30.54	16.3	16.3	114.2	114.1	9.30	9.29	0.7	0.7	7.0	7.0	
								2	8.23	8.23	30.55	30.54	16.3	16.3	114.0	114.1	9.28	9.29	0.7	0.7	7.0	7.0	
		C2		08:13	4.5	S	1.0	1	8.22	8.22	30.68	30.70	16.8	16.8	114.5	114.6	9.31	9.32	0.7	0.7	7.0	7.0	
								2	8.22	8.22	30.71	30.70	16.8	16.8	114.7	114.6	9.33	9.32	0.7	0.7	7.0	7.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
						B	3.5	1	8.24	8.24	30.74	30.76	16.7	16.8	114.0	113.8	9.28	9.27	0.9	0.9	7.0	7.0	
								2	8.24	8.24	30.77	30.76	16.8	16.8	113.5	113.8	9.26	9.27	0.9	0.9	7.0	7.0	
		C3		07:42	15.0	S	1.0	1	8.22	8.22	30.56	30.57	16.6	16.6	115.6	115.7	9.37	9.38	0.6	0.7	6.0	6.0	
								2	8.22	8.22	30.57	30.57	16.6	16.6	115.7	115.7	9.39	9.38	0.7	0.7	6.0	6.0	
						M	7.5	1	8.22	8.22	30.55	30.54	16.6	16.6	115.3	115.3	9.35	9.35	0.7	0.7	5.0	5.0	
								2	8.22	8.22	30.53	30.54	16.5	16.6	115.2	115.3	9.34	9.35	0.7	0.7	5.0	5.0	
						B	14.0	1	8.22	8.22	30.54	30.55	16.5	16.5	114.7	114.5	9.31	9.30	0.7	0.7	8.0	8.0	
								2	8.22	8.22	30.55	30.55	16.5	16.5	114.3	114.5	9.29	9.30	0.7	0.7	8.0	8.0	

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement										Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L	
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
9-Jan-21	Mid-Flood	WMS-1N	Fine	13:40	4.3	S	1.0	1	8.21	8.16	30.54	30.56	16.5	16.5	114.1	114.0	9.21	9.21	0.7	0.7	4.0	4.5
								2	8.10		30.57		16.5		113.8		9.20		0.7		5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.3	1	8.22	8.21	30.61	30.62	16.5	16.5	113.4	113.3	9.17	9.16	0.8	0.8	5.0	5.0
								2	8.20		30.63		16.5		113.2		9.15		0.8		5.0	
		WMS-2N		13:31	4.6	S	4.6	1	8.23	8.23	30.58	30.58	16.1	16.1	115.2	115.0	9.35	9.34	0.7	0.7	6.0	6.0
								2	8.23		30.57		16.1		114.8		9.33		0.7		6.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.6	1	8.23	8.23	30.62	30.64	15.8	15.8	114.2	114.1	9.28	9.27	0.6	0.6	6.0	6.0
								2	8.23		30.65		15.8		114.0		9.26		0.6		6.0	
		WMS3		13:47	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.23	8.23	30.68	30.71	16.2	16.2	113.5	113.5	9.25	9.25	0.6	0.7	9.0	9.0
								2	8.23		30.74		16.2		113.4		9.25		0.7		9.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS4		14:05	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.23	8.23	30.62	30.65	16.5	16.5	114.0	114.0	9.25	9.25	0.7	0.7	4.0	4.0
								2	8.23		30.67		16.5		114.0		9.24		0.7		4.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS5		14:13	2.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.0	1	8.22	8.22	30.63	30.64	16.6	16.6	114.7	114.6	9.29	9.28	0.7	0.7	6.0	6.0
								2	8.22		30.64		16.6		114.5		9.27		0.7		6.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS6		13:56	6.2	S	1.0	1	8.23	8.23	30.75	30.74	16.4	16.4	113.5	113.4	9.23	9.22	0.8	0.8	5.0	5.0
								2	8.22		30.72		16.4		113.2		9.21		0.7		5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	5.2	1	8.23	8.23	30.58	30.58	16.3	16.3	114.0	114.1	9.28	9.29	0.7	0.7	6.0	6.0
								2	8.23		30.57		16.3		114.2		9.29		0.7		6.0	
		I1		14:21	12.0	S	1.0	1	8.18	8.18	30.48	30.50	16.7	16.7	113.4	113.5	9.18	9.19	0.8	0.8	6.0	6.0
								2	8.18		30.52		16.7		113.5		9.20		0.7		6.0	
						M	6.0	1	8.18	8.18	30.40	30.42	16.8	16.8	113.8	113.9	9.20	9.21	0.6	0.7	12.0	12.0
								2	8.18		30.43		16.8		113.9		9.21		0.7		12.0	
						B	11.0	1	8.19	8.19	30.38	30.39	16.7	16.7	113.4	113.2	9.17	9.15	0.7	0.7	11.0	10.5
								2	8.19		30.40		16.7		113.0		9.13		0.7		10.0	
		C1		14:33	17.0	S	1.0	1	8.07	8.07	30.80	30.81	16.5	16.5	113.5	113.3	9.21	9.19	0.8	0.8	9.0	9.0
								2	8.07		30.82		16.4		113.0		9.17		0.7		9.0	
						M	8.5	1	8.09	8.09	30.55	30.55	16.8	16.8	112.7	112.6	9.10	9.09	0.9	1.0	7.0	7.0
								2	8.09		30.55		16.8		112.5		9.08		1.0		7.0	
						B	16.0	1	8.11	8.11	30.51	30.52	16.7	16.7	111.8	111.7	9.04	9.04	0.8	0.8	8.0	8.0
								2	8.11		30.53		16.7		111.5		9.03		0.7		8.0	

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis	
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L	
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
12-Jan-21	Mid-Ebb	WMS-1N	Fine	12:04	4.8	S	1.0	1	8.27	8.24	31.11	31.12	14.3	14.3	102.5	102.3	8.67	8.65	0.3	0.3	4.0	4.5
								2	8.20		31.13		14.3		102.1		8.63		0.2		5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.8	1	8.23	8.24	30.98	30.97	14.1	14.1	101.8	101.6	8.66	8.64	1.0	1.0	7.0	7.0
								2	8.25		30.95		14.1		101.4		8.62		0.9		7.0	
		WMS-2N		11:51	4.6	S	1.0	1	8.22	8.22	31.08	31.09	14.6	14.6	103.6	103.6	8.71	8.71	0.2	0.3	4.0	4.5
								2	8.21		31.09		14.6		103.5		8.70		0.3		5.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.6	1	8.23	8.23	30.98	30.97	13.8	13.8	100.1	100.3	8.57	8.59	1.1	1.1	4.0	4.0
								2	8.22		30.96		13.8		100.4		8.60		1.1		4.0	
		WMS3		11:39	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.26	8.25	31.12	31.14	15.0	15.1	104.5	104.7	8.71	8.73	0.3	0.3	7.0	7.5
								2	8.24		31.16		15.1		104.8		8.74		0.3		8.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS4		11:28	2.7	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.4	1	8.25	8.25	31.23	31.24	15.3	15.3	107.0	107.2	8.86	8.88	0.3	0.3	8.0	8.0
								2	8.24		31.24		15.3		107.3		8.89		0.3		8.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS5		11:18	2.5	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						M	1.3	1	8.25	8.26	31.13	31.14	15.6	15.6	117.5	117.6	9.67	9.68	0.4	0.4	4.0	4.0
								2	8.26		31.15		15.6		117.7		9.69		0.3		4.0	
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
		WMS6		11:06	6.2	S	1.0	1	8.26	8.25	31.10	31.11	15.2	15.2	107.5	107.7	8.92	8.94	0.6	0.6	4.0	4.0
								2	8.24		31.11		15.2		107.8		8.95		0.6		4.0	
						M	3.1	1	8.25	8.24	31.08	31.10	14.9	15.0	103.6	103.5	8.64	8.63	0.9	0.9	4.0	4.0
								2	8.23		31.11		15.0		103.4		8.62		0.9		4.0	
						B	5.2	1	8.22	8.23	31.03	31.04	13.7	13.8	101.8	101.7	8.71	8.70	1.6	1.6	6.0	6.0
								2	8.24		31.04		13.8		101.5		8.68		1.5		6.0	
		I2		10:43	14.0	S	1.0	1	8.18	8.18	31.06	31.07	15.8	15.8	106.8	106.7	8.76	8.75	0.3	0.4	4.0	4.0
								2	8.17		31.08		15.8		106.6		8.74		0.4		4.0	
						M	7.0	1	8.18	8.19	31.11	31.12	15.8	15.9	105.6	105.5	8.66	8.65	0.6	0.6	3.0	3.5
								2	8.20		31.13		15.9		105.3		8.63		0.6		4.0	
						B	13.0	1	8.22	8.22	30.98	30.97	15.9	15.9	103.7	103.6	8.50	8.49	1.2	1.3	4.0	4.0
								2	8.21		30.96		15.9		103.5		8.48		1.3		4.0	
		C2		11:56	4.8	S	1.0	1	8.24	8.24	31.20	31.21	14.3	14.4	108.0	107.2	9.12	9.14	0.2	0.3	10.0	10.0
								2	8.23		31.22		14.4		106.3		9.15		0.3		10.0	
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA	
						B	3.8	1	8.25	8.26	31.04	31.05	14.8	14.8	103.0	103.3	8.43	8.46	1.2	1.2	4.0	4.0
								2	8.26		31.06		14.8		103.5		8.48		1.2		4.0	
		C3		10:55	14.0	S	1.0	1	8.26	8.26	31.01	31.02	15.7	15.7	107.7	107.6	8.85	8.83	0.4	0.4	4.0	4.0
2	8.25		31.03					15.7	107.4		8.81		0.3		4.0							
M	7.0		1			8.27	8.26	30.98	30.99	15.7	15.7	106.1	106.3	8.72	8.74	0.4	0.4	3.0	3.0			
			2			8.24		30.99		15.7		106.5		8.76		0.3		3.0				
B	13.0		1			8.27	8.28	30.99	30.98	15.7	15.7	105.9	105.9	8.70	8.70	0.9	1.1	5.0	5.0			
			2			8.28		30.96		15.7		105.8		8.69		1.2		5.0				

Water Quality Monitoring Results

Date	Tidal Mode	Monitoring Location	Weather	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement												Laboratory Analysis			
									pH		Salinity (ppt)		Temperature (°C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total suspended solids dried at 103 - 105 (°C), mg/L			
									Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.		
12-Jan-21	Mid-Flood	WMS-1N	Fine	16:21	5.7	S	1.0	1	8.27	8.28	30.92	30.94	14.4	14.4	105.2	105.1	8.74	8.73	0.8	0.8	5.0	5.0		
								2	8.28		30.96		14.4		105.0		8.72		0.8		5.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA			
						B	4.7	1	8.25	8.26	30.83	30.82	14.0	14.0	104.1	104.4	8.65	8.68	1.3	1.3	6.0	6.0		
								2	8.26		30.80		13.9		104.6		8.71		1.3		6.0			
		WMS-2N		16:33	5.5	S	5.5	1	8.25	8.24	31.16	31.17	15.2	15.2	105.6	105.5	8.77	8.76	0.5	0.6	5.0	4.5		
								2	8.23		31.18		15.2		105.3		8.74		0.6		4.0			
						M	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						B	4.5	1	8.26	8.26	30.91	30.92	13.8	13.8	99.7	99.6	8.25	8.24	1.6	1.6	4.0	4.0		
								2	8.25		30.93		13.8		99.4		8.22		1.5		4.0			
		WMS3		16:45	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.28	8.28	31.00	31.02	15.1	15.1	104.0	103.8	8.64	8.63	0.6	0.6	4.0	4.0		
								2	8.27		31.03		15.1		103.6		8.62		0.5		4.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS4		16:58	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.26	8.25	31.04	31.03	15.6	15.6	105.2	105.4	8.67	8.69	0.5	0.6	6.0	6.0		
								2	8.24		31.02		15.6		105.6		8.71		0.6		6.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS5		17:11	3.0	S	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
						M	1.5	1	8.24	8.23	31.04	31.05	15.7	15.8	109.3	109.2	8.98	8.97	0.5	0.6	3.0	3.0		
								2	8.22		31.05		15.8		109.1		8.96		0.6		3.0			
						B	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
								2	NA		NA		NA		NA		NA		NA		NA		NA	
		WMS6		17:24	8.0	S	1.0	1	8.28	8.28	31.15	31.17	15.4	15.4	108.0	107.9	8.97	8.96	0.9	0.9	5.0	4.5		
								2	8.27		31.18		15.3		107.7		8.94		0.8		4.0			
						M	4.0	1	8.26	8.26	31.17	31.17	15.1	15.1	105.9	105.7	8.76	8.74	0.7	0.8	4.0	4.0		
								2	8.26		31.16		15.1		105.4		8.71		0.8		4.0			
						B	7.0	1	8.26	8.26	31.14	31.15	15.0	15.0	104.1	104.3	8.68	8.70	1.0	1.1	4.0	4.0		
								2	8.25		31.15		14.9		104.5		8.72		1.2		4.0			
		I1		17:38	14.0	S	1.0	1	8.27	8.27	31.01	31.02	15.9	15.9	106.3	106.4	8.70	8.71	0.6	0.6	4.0	4.0		
								2	8.26		31.03		15.9		106.5		8.72		0.5		4.0			
						M	7.0	1	8.24	8.25	31.00	31.49	15.9	15.9	106.1	106.1	8.69	8.69	0.5	0.5	3.0	3.0		
								2	8.26		31.98		15.9		106.0		8.68		0.5		3.0			
						B	13.0	1	8.22	8.21	31.94	31.95	15.9	15.9	105.7	105.6	8.65	8.64	1.3	1.4	4.0	4.0		
								2	8.20		31.95		15.9		105.4		8.62		1.4		4.0			
		C1		17:50	16.0	S	1.0	1	8.28	8.29	31.06	31.07	15.7	15.7	115.0	115.3	9.45	9.48	0.6	0.6	3.0	3.0		
								2	8.29		31.08		15.7		115.6		9.51		0.6		3.0			
						M	8.0	1	8.27	8.26	31.00	31.01	15.7	15.8	111.8	111.7	9.19	9.18	0.4	0.5	8.0	8.0		
								2	8.25		31.01		15.8		111.5		9.16		0.5		8.0			
						B	15.0	1	8.25	8.25	30.97	30.96	15.7	15.7	112.2	112.4	9.23	9.24	1.6	1.7	9.0	9.0		
								2	8.24		30.95		15.7		112.5		9.25		1.7		9.0			

Note: 1. ND: Not Detected
2. NA: Not Applicable
3. TBC: To Be Confirm

Report No. : 203480WA202328



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**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 17/12/2020

Sample description : Sixty-eight samples of water taken by the FTS staff on
17/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202328/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 17/12/2020

Date test commenced : 18/12/2020

Date test completed : 19/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202328

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Results :

Sample identification		Test result Total suspended solids dried at 103°C – 105°C, mg/L	Reporting limit, mg/L
1	WMS1/S/E	7	1
2	WMS1/S/E Dup	7	
3	WMS1/B/E	8	
4	WMS1/B/E Dup	8	
5	WMS2/S/E	9	
6	WMS2/S/E Dup	9	
7	WMS2/B/E	8	
8	WMS2/B/E Dup	8	
9	WMS3/M/E	6	
10	WMS3/M/E Dup	6	
11	WMS4/M/E	7	
12	WMS4/M/E Dup	7	
13	WMS5/M/E	5	
14	WMS5/M/E Dup	5	
15	WMS6/S/E	6	
16	WMS6/S/E Dup	6	
17	WMS6/M/E	6	
18	WMS6/M/E Dup	6	
19	WMS6/B/E	8	
20	WMS6/B/E Dup	9	
21	WMS1/S/F	6	
22	WMS1/S/F Dup	6	
23	WMS1/B/F	9	
24	WMS1/B/F Dup	9	
25	WMS2/S/F	10	
26	WMS2/S/F Dup	10	
27	WMS2/B/F	6	
28	WMS2/B/F Dup	6	
29	WMS3/M/F	4	
30	WMS3/M/F Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202328

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Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	9	1
32	WMS4/M/F Dup	9	
33	WMS5/M/F	7	
34	WMS5/M/F Dup	7	
35	WMS6/S/F	6	
36	WMS6/S/F Dup	7	
37	WMS6/M/F	5	
38	WMS6/M/F Dup	6	
39	WMS6/B/F	7	
40	WMS6/B/F Dup	8	
41	I1/S/F	8	
42	I1/S/F Dup	8	
43	I1/M/F	15	
44	I1/M/F Dup	15	
45	I1/B/F	6	
46	I1/B/F Dup	6	
47	I2/S/E	8	
48	I2/S/E Dup	8	
49	I2/M/E	7	
50	I2/M/E Dup	7	
51	I2/B/E	8	
52	I2/B/E Dup	9	
53	C1/S/F	11	
54	C1/S/F Dup	11	
55	C1/M/F	6	
56	C1/M/F Dup	7	
57	C1/B/F	9	
58	C1/B/F Dup	9	
59	C2/S/E	9	
60	C2/S/E Dup	9	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2021

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Report No. : 203480WA202328

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Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C2/B/E	10	1
62	C2/B/E Dup	10	
63	C3/S/E	7	
64	C3/S/E Dup	7	
65	C3/M/E	5	
66	C3/M/E Dup	5	
67	C3/B/E	6	
68	C3/B/E Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by:

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 22/1/2024

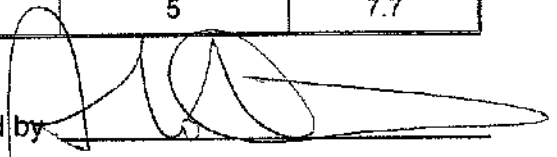
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	100	9	9	4.3
	<1	100	7	6	4.6
	<1	100	9	9	2.2
	<1	101	10	10	0
	<1	100	5	5	7.7

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/12/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202356A



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Test Report on Analysis of Water**Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 19/12/2020

Sample description : Seventy-two samples of water taken by the FTS staff on
19/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202356/1 - 64 & 67 - 74

Sample temperature : 6.2°C
being received

Date of receipt of sample : 19/12/2020

Date test commenced : 21/12/2020

Date test completed : 22/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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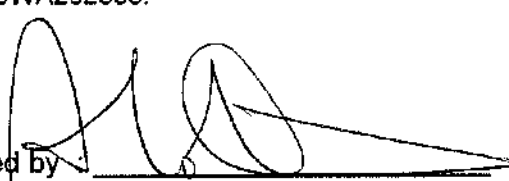
Report No. : 203480WA202356A

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Results :

Sample identification		Test result Total suspended solids dried at 103°C – 105°C, mg/L	Reporting limit, mg/L
1	WMS1/S/E	10	1
2	WMS1/S/E Dup	11	
3	WMS1/M/E	9	
4	WMS1/M/E Dup	9	
5	WMS1/B/E	11	
6	WMS1/B/E Dup	11	
7	WMS2/S/E	9	
8	WMS2/S/E Dup	9	
9	WMS2/M/E	5	
10	WMS2/M/E Dup	6	
11	WMS2/B/E	7	
12	WMS2/B/E Dup	7	
13	WMS3/M/E	12	
14	WMS3/M/E Dup	12	
15	WMS4/M/E	8	
16	WMS4/M/E Dup	8	
17	WMS5/M/E	8	
18	WMS5/M/E Dup	8	
19	WMS6/S/E	7	
20	WMS6/S/E Dup	8	
21	WMS6/B/E	9	
22	WMS6/B/E Dup	10	
23	WMS1/S/F	5	
24	WMS1/S/F Dup	5	
25	WMS1/M/F	5	
26	WMS1/M/F Dup	5	
27	WMS1/B/F	6	
28	WMS1/B/F Dup	6	
29	WMS2/S/F	6	
30	WMS2/S/F Dup	6	

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. This report is to supersede our former report #203480WA202356.

Certified by 
Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 3/5/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202356A

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS2/M/F	5	1
32	WMS2/M/F Dup	5	
33	WMS2/B/F	5	
34	WMS2/B/F Dup	5	
35	WMS3/M/F	5	
36	WMS3/M/F Dup	6	
37	WMS4/M/F	4	
38	WMS4/M/F Dup	4	
39	WMS5/M/F	6	
40	WMS5/M/F Dup	5	
41	WMS6/S/F	5	
42	WMS6/S/F Dup	6	
43	WMS6/B/F	5	
44	WMS6/B/F Dup	5	
45	I1/S/F	5	
46	I1/S/F Dup	5	
47	I1/M/F	5	
48	I1/M/F Dup	5	
49	I1/B/F	6	
50	I1/B/F Dup	6	
51	I2/S/E	5	
52	I2/S/E Dup	8	
53	I2/M/E	6	
54	I2/M/E Dup	6	
55	I2/B/E	7	
56	I2/B/E Dup	7	
57	C1/S/F	7	
58	C1/S/F Dup	7	
59	C1/M/F	6	
60	C1/M/F Dup	6	

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. This report is to supersede our former report #203480WA202356.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

3/5/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202356A

Page 4 of 4


Results :

Sample Identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C1/B/F	5	1
62	C1/B/F Dup	6	
63	C2/S/E	6	
64	C2/S/E Dup	6	
67	C2/B/E	5	
68	C2/B/E Dup	5	
69	C3/S/E	8	
70	C3/S/E Dup	8	
71	C3/M/E	8	
72	C3/M/E Dup	8	
73	C3/B/E	7	
74	C3/B/E Dup	7	

Remark: 1. Disclaimer: Sampling is out of scope of accreditation.
2. This report is to supersede our former report #203480WA202356.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 3/5/2021

**** End of Report ****

Note : This report refers only to the sample(s) tested.

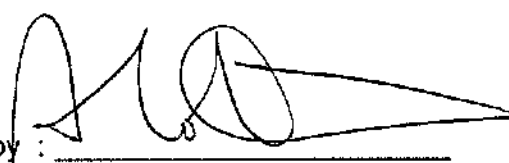
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Report No. : 203480WA202356A

Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	101	4	4	1.3
	<1	101	4	4	10
	<1	101	5	5	2.1
	<1	99	5	4	6.7
	<1	100	4	5	1.1

Remark : This report is to supersede our former report #203480WA202356.


 Certified by : _____
 Approved Signatory : HO Kin Man, John
 Assistant General Manager – Laboratories
 Date : 3/5/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202386



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 22/12/2020

Sample description : Sixty-four samples of water taken by the FTS staff on
22/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202386/1 - 64

Sample temperature : 6.2°C
being received

Date of receipt of sample : 22/12/2020

Date test commenced : 23/12/2020

Date test completed : 24/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202386

Page 2 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
1	WMS1/S/E	9	1
2	WMS1/S/E Dup	8	
3	WMS1/B/E	10	
4	WMS1/B/E Dup	11	
5	WMS2/S/E	8	
6	WMS2/S/E Dup	8	
7	WMS2/B/E	7	
8	WMS2/B/E Dup	7	
9	WMS3/M/E	6	
10	WMS3/M/E Dup	6	
11	WMS4/M/E	9	
12	WMS4/M/E Dup	9	
13	WMS5/M/E	9	
14	WMS5/M/E Dup	9	
15	WMS6/S/E	9	
16	WMS6/S/E Dup	9	
17	WMS6/B/E	9	
18	WMS6/B/E Dup	9	
19	WMS1/S/F	8	
20	WMS1/S/F Dup	8	
21	WMS1/B/F	11	
22	WMS1/B/F Dup	11	
23	WMS2/S/F	10	
24	WMS2/S/F Dup	9	
25	WMS2/B/F	10	
26	WMS2/B/F Dup	10	
27	WMS3/M/F	9	
28	WMS3/M/F Dup	9	
29	WMS4/M/F	7	
30	WMS4/M/F Dup	8	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202386

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS5/M/F	9	1
32	WMS5/M/F Dup	10	
33	WMS6/S/F	9	
34	WMS6/S/F Dup	9	
35	WMS6/B/F	8	
36	WMS6/B/F Dup	8	
37	I1/S/F	8	
38	I1/S/F Dup	9	
39	I1/M/F	9	
40	I1/M/F Dup	9	
41	I1/B/F	8	
42	I1/B/F Dup	8	
43	I2/S/E	10	
44	I2/S/E Dup	10	
45	I2/M/E	9	
46	I2/M/E Dup	9	
47	I2/B/E	11	
48	I2/B/E Dup	11	
49	C1/S/F	9	
50	C1/S/F Dup	9	
51	C1/M/F	8	
52	C1/M/F Dup	8	
53	C1/B/F	8	
54	C1/B/F Dup	8	
55	C2/S/E	8	
56	C2/S/E Dup	8	
57	C2/B/E	7	
58	C2/B/E Dup	7	
59	C3/S/E	8	
60	C3/S/E Dup	8	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

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Report No. : 203480WA202386

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C3/M/E	8	1
62	C3/M/E Dup	8	
63	C3/B/E	7	
64	C3/B/E Dup	7	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	100	9	9	3.4
	<1	100	8	8	3.7
	<1	101	9	10	3.1
	<1	100	11	11	2.8

Certified by:

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202406



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 24/12/2020

Sample description : Sixty-eight samples of water taken by the FTS staff on
24/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202406/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 24/12/2020

Date test commenced : 28/12/2020

Date test completed : 29/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202406

Page 2 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
1	WMS1/S/E	6	1
2	WMS1/S/E Dup	6	
3	WMS1/B/E	5	
4	WMS1/B/E Dup	5	
5	WMS2/S/E	6	
6	WMS2/S/E Dup	6	
7	WMS2/B/E	5	
8	WMS2/B/E Dup	5	
9	WMS3/M/E	6	
10	WMS3/M/E Dup	6	
11	WMS4/M/E	6	
12	WMS4/M/E Dup	6	
13	WMS5/M/E	7	
14	WMS5/M/E Dup	7	
15	WMS6/S/E	6	
16	WMS6/S/E Dup	7	
17	WMS6/M/E	7	
18	WMS6/M/E Dup	7	
19	WMS6/B/E	6	
20	WMS6/B/E Dup	6	
21	WMS1/S/F	5	
22	WMS1/S/F Dup	6	
23	WMS1/B/F	5	
24	WMS1/B/F Dup	5	
25	WMS2/S/F	6	
26	WMS2/S/F Dup	6	
27	WMS2/B/F	7	
28	WMS2/B/F Dup	7	
29	WMS3/M/F	5	
30	WMS3/M/F Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202406

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Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	8	1
32	WMS4/M/F Dup	8	
33	WMS5/M/F	6	
34	WMS5/M/F Dup	6	
35	WMS6/S/F	7	
36	WMS6/S/F Dup	7	
37	WMS6/M/F	5	
38	WMS6/M/F Dup	5	
39	WMS6/B/F	7	
40	WMS6/B/F Dup	7	
41	I1/S/F	6	
42	I1/S/F Dup	6	
43	I1/M/F	5	
44	I1/M/F Dup	5	
45	I1/B/F	7	
46	I1/B/F Dup	7	
47	I2/S/E	8	
48	I2/S/E Dup	8	
49	I2/M/E	7	
50	I2/M/E Dup	8	
51	I2/B/E	7	
52	I2/B/E Dup	7	
53	C1/S/F	7	
54	C1/S/F Dup	7	
55	C1/M/F	6	
56	C1/M/F Dup	6	
57	C1/B/F	5	
58	C1/B/F Dup	5	
59	C2/S/E	6	
60	C2/S/E Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202406

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C2/B/E	5	1
62	C2/B/E Dup	5	
63	C3/S/E	5	
64	C3/S/E Dup	5	
65	C3/M/E	8	
66	C3/M/E Dup	7	
67	C3/B/E	5	
68	C3/B/E Dup	5	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

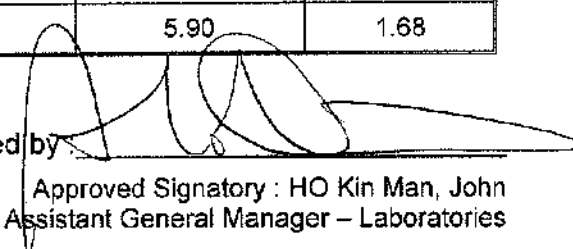
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	99.86	6.20	5.95	4.12
	<1	99.60	6.30	6.10	3.23
	<1	100.70	5.70	5.60	1.77
	<1	100.10	6.00	5.90	1.68

Certified by:


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202410



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 26/12/2020

Sample description : Sixty-four samples of water taken by the FTS staff on
26/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202410/1 - 64

Sample temperature : 6.1°C
being received

Date of receipt of sample : 26/12/2020

Date test commenced : 26/12/2020

Date test completed : 28/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202410

Page 2 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
1	WMS1/S/E	8	1
2	WMS1/S/E Dup	8	
3	WMS1/B/E	5	
4	WMS1/B/E Dup	5	
5	WMS2/S/E	6	
6	WMS2/S/E Dup	6	
7	WMS2/B/E	5	
8	WMS2/B/E Dup	5	
9	WMS3/M/E	7	
10	WMS3/M/E Dup	8	
11	WMS4/M/E	7	
12	WMS4/M/E Dup	6	
13	WMS5/M/E	5	
14	WMS5/M/E Dup	5	
15	WMS6/S/E	6	
16	WMS6/S/E Dup	6	
17	WMS6/B/E	6	
18	WMS6/B/E Dup	6	
19	WMS1/S/F	7	
20	WMS1/S/F Dup	7	
21	WMS1/B/F	6	
22	WMS1/B/F Dup	6	
23	WMS2/S/F	4	
24	WMS2/S/F Dup	4	
25	WMS2/B/F	5	
26	WMS2/B/F Dup	5	
27	WMS3/M/F	6	
28	WMS3/M/F Dup	6	
29	WMS4/M/F	6	
30	WMS4/M/F Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202410

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS5/M/F	5	1
32	WMS5/M/F Dup	5	
33	WMS6/S/F	6	
34	WMS6/S/F Dup	6	
35	WMS6/B/F	6	
36	WMS6/B/F Dup	6	
37	I1/S/F	8	
38	I1/S/F Dup	7	
39	I1/M/F	6	
40	I1/M/F Dup	6	
41	I1/B/F	5	
42	I1/B/F Dup	5	
43	I2/S/E	6	
44	I2/S/E Dup	6	
45	I2/M/E	5	
46	I2/M/E Dup	5	
47	I2/B/E	6	
48	I2/B/E Dup	6	
49	C1/S/F	6	
50	C1/S/F Dup	6	
51	C1/M/F	6	
52	C1/M/F Dup	6	
53	C1/B/F	5	
54	C1/B/F Dup	5	
55	C2/S/E	6	
56	C2/S/E Dup	6	
57	C2/B/E	5	
58	C2/B/E Dup	5	
59	C3/S/E	5	
60	C3/S/E Dup	5	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202410

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C3/M/E	5	1
62	C3/M/E Dup	5	
63	C3/B/E	6	
64	C3/B/E Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2021

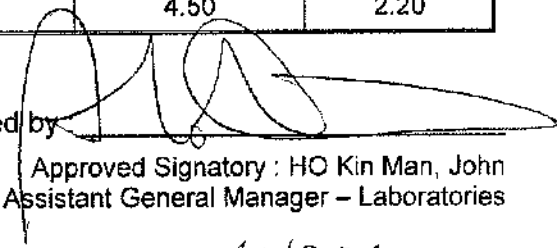
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	99.90	5.10	5.00	1.98
	<1	99.60	6.30	6.10	3.23
	<1	99.20	5.80	6.00	3.39
	<1	100.90	4.60	4.50	2.20

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202427



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 29/12/2020

Sample description : Sixty-eight samples of water taken by the FTS staff on
29/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202427/1 - 68

Sample temperature : 6.2°C
being received

Date of receipt of sample : 29/12/2020

Date test commenced : 29/12/2020

Date test completed : 30/12/2020

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202427

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Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
1	WMS1/S/E	5	1
2	WMS1/S/E Dup	5	
3	WMS1/B/E	7	
4	WMS1/B/E Dup	7	
5	WMS2/S/E	5	
6	WMS2/S/E Dup	5	
7	WMS2/B/E	7	
8	WMS2/B/E Dup	7	
9	WMS3/M/E	7	
10	WMS3/M/E Dup	7	
11	WMS4/M/E	5	
12	WMS4/M/E Dup	5	
13	WMS5/M/E	6	
14	WMS5/M/E Dup	6	
15	WMS6/S/E	5	
16	WMS6/S/E Dup	5	
17	WMS6/M/E	5	
18	WMS6/M/E Dup	6	
19	WMS6/B/E	6	
20	WMS6/B/E Dup	6	
21	WMS1/S/F	7	
22	WMS1/S/F Dup	7	
23	WMS1/B/F	6	
24	WMS1/B/F Dup	6	
25	WMS2/S/F	5	
26	WMS2/S/F Dup	5	
27	WMS2/B/F	5	
28	WMS2/B/F Dup	6	
29	WMS3/M/F	6	
30	WMS3/M/F Dup	7	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202427

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	7	1
32	WMS4/M/F Dup	7	
33	WMS5/M/F	7	
34	WMS5/M/F Dup	8	
35	WMS6/S/F	6	
36	WMS6/S/F Dup	6	
37	WMS6/M/F	6	
38	WMS6/M/F Dup	6	
39	WMS6/B/F	7	
40	WMS6/B/F Dup	7	
41	I1/S/F	8	
42	I1/S/F Dup	7	
43	I1/M/F	6	
44	I1/M/F Dup	6	
45	I1/B/F	7	
46	I1/B/F Dup	7	
47	I2/S/E	6	
48	I2/S/E Dup	6	
49	I2/M/E	6	
50	I2/M/E Dup	7	
51	I2/B/E	6	
52	I2/B/E Dup	6	
53	C1/S/F	7	
54	C1/S/F Dup	6	
55	C1/M/F	6	
56	C1/M/F Dup	6	
57	C1/B/F	6	
58	C1/B/F Dup	6	
59	C2/S/E	7	
60	C2/S/E Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202427

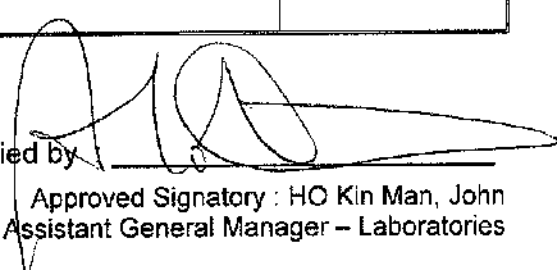
Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C2/B/E	5	1
62	C2/B/E Dup	5	
63	C3/S/E	5	
64	C3/S/E Dup	4	
65	C3/M/E	20	
66	C3/M/E Dup	20	
67	C3/B/E	20	
68	C3/B/E Dup	20	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/1/2024

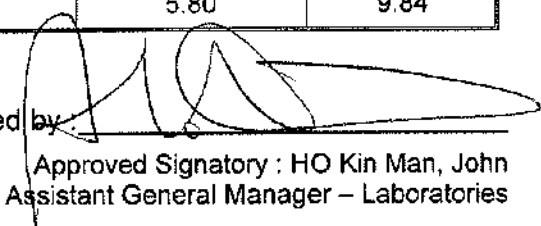
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	99.46	5.15	5.40	4.74
	<1	100.80	5.60	5.40	3.64
	<1	99.80	7.30	6.90	5.63
	<1	99.80	6.40	5.80	9.84

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 22/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202432



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 31/12/2020

Sample description : Sixty-eight samples of water taken by the FTS staff on
31/12/2020

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202432/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 31/12/2020

Date test commenced : 31/12/2020

Date test completed : 02/01/2021

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202432

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Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
1	WMS1/S/E	4	1
2	WMS1/S/E Dup	4	
3	WMS1/B/E	6	
4	WMS1/B/E Dup	6	
5	WMS2/S/E	9	
6	WMS2/S/E Dup	10	
7	WMS2/B/E	3	
8	WMS2/B/E Dup	3	
9	WMS3/M/E	5	
10	WMS3/M/E Dup	5	
11	WMS4/M/E	4	
12	WMS4/M/E Dup	4	
13	WMS5/M/E	3	
14	WMS5/M/E Dup	3	
15	WMS6/S/E	4	
16	WMS6/S/E Dup	4	
17	WMS6/M/E	6	
18	WMS6/M/E Dup	6	
19	WMS6/B/E	9	
20	WMS6/B/E Dup	9	
21	WMS1/S/F	8	
22	WMS1/S/F Dup	8	
23	WMS1/B/F	10	
24	WMS1/B/F Dup	9	
25	WMS2/S/F	10	
26	WMS2/S/F Dup	10	
27	WMS2/B/F	5	
28	WMS2/B/F Dup	5	
29	WMS3/M/F	4	
30	WMS3/M/F Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202432

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	3	1
32	WMS4/M/F Dup	3	
33	WMS5/M/F	6	
34	WMS5/M/F Dup	6	
35	WMS6/S/F	4	
36	WMS6/S/F Dup	4	
37	WMS6/M/F	4	
38	WMS6/M/F Dup	5	
39	WMS6/B/F	4	
40	WMS6/B/F Dup	4	
41	I1/S/F	6	
42	I1/S/F Dup	7	
43	I1/M/F	4	
44	I1/M/F Dup	5	
45	I1/B/F	4	
46	I1/B/F Dup	4	
47	I2/S/E	10	
48	I2/S/E Dup	10	
49	I2/M/E	7	
50	I2/M/E Dup	7	
51	I2/B/E	9	
52	I2/B/E Dup	9	
53	C1/S/F	5	
54	C1/S/F Dup	5	
55	C1/M/F	15	
56	C1/M/F Dup	15	
57	C1/B/F	6	
58	C1/B/F Dup	7	
59	C2/S/E	4	
60	C2/S/E Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202432

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Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
61	C2/B/E	11	1
62	C2/B/E Dup	11	
63	C3/S/E	12	
64	C3/S/E Dup	12	
65	C3/M/E	9	
66	C3/M/E Dup	9	
67	C3/B/E	4	
68	C3/B/E Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

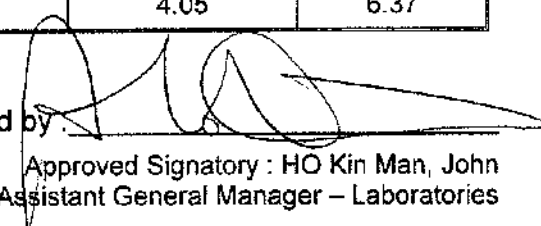
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	100.80	3.50	3.70	5.56
	<1	100.70	3.50	3.70	5.56
	<1	99.10	6.45	6.65	3.05
	<1	100.16	3.80	4.05	6.37

Certified by :


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA202454



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD
Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong
Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O
Sampling date : 02/01/2021
Sample description : Sixty-four samples of water taken by the FTS staff on
02/01/2021
Client sample ID : Refer to pages 2 to 4
Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA202454/1 - 64
Sample temperature : 6.2°C
being received
Date of receipt of sample : 02/01/2021
Date test commenced : 02/01/2021
Date test completed : 04/01/2021
Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202454

Page 2 of 4


Results :

Sample identification		Test result Total suspended solids dried at 103°C – 105°C, mg/L	Reporting limit, mg/L
1	WMS1/S/E	7	1
2	WMS1/S/E Dup	7	
3	WMS1/B/E	10	
4	WMS1/B/E Dup	10	
5	WMS2/S/E	8	
6	WMS2/S/E Dup	8	
7	WMS2/B/E	6	
8	WMS2/B/E Dup	6	
9	WMS3/M/E	11	
10	WMS3/M/E Dup	11	
11	WMS4/M/E	9	
12	WMS4/M/E Dup	9	
13	WMS5/M/E	9	
14	WMS5/M/E Dup	9	
15	WMS6/S/E	9	
16	WMS6/S/E Dup	9	
17	WMS6/B/E	10	
18	WMS6/B/E Dup	10	
19	WMS1/S/F	12	
20	WMS1/S/F Dup	12	
21	WMS1/B/F	5	
22	WMS1/B/F Dup	5	
23	WMS2/S/F	11	
24	WMS2/S/F Dup	11	
25	WMS2/B/F	12	
26	WMS2/B/F Dup	12	
27	WMS3/M/F	9	
28	WMS3/M/F Dup	9	
29	WMS4/M/F	10	
30	WMS4/M/F Dup	10	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 22/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202454

Page 3 of 4


Results :

Sample identification		Test result Total suspended solids dried at 103°C – 105°C, mg/L	Reporting limit, mg/L
31	WMS5/M/F	4	1
32	WMS5/M/F Dup	4	
33	WMS6/S/F	4	
34	WMS6/S/F Dup	4	
35	WMS6/B/F	4	
36	WMS6/B/F Dup	4	
37	I1/S/F	4	
38	I1/S/F Dup	4	
39	I1/M/F	7	
40	I1/M/F Dup	7	
41	I1/B/F	9	
42	I1/B/F Dup	10	
43	I2/S/E	12	
44	I2/S/E Dup	12	
45	I2/M/E	5	
46	I2/M/E Dup	5	
47	I2/B/E	4	
48	I2/B/E Dup	4	
49	C1/S/F	6	
50	C1/S/F Dup	6	
51	C1/M/F	4	
52	C1/M/F Dup	4	
53	C1/B/F	3	
54	C1/B/F Dup	4	
55	C2/S/E	3	
56	C2/S/E Dup	4	
57	C2/B/E	10	
58	C2/B/E Dup	10	
59	C3/S/E	9	
60	C3/S/E Dup	9	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/12/24

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA202454

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C3/M/E	4	1
62	C3/M/E Dup	4	
63	C3/B/E	12	
64	C3/B/E Dup	12	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 02/11/2024

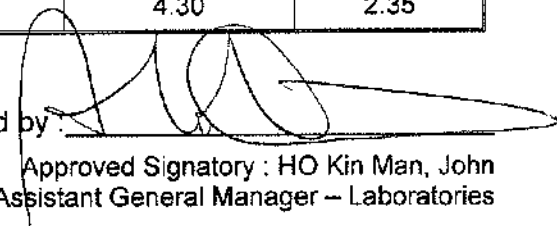
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	96.50	11.60	11.90	2.55
	<1	98.46	10.45	11.10	6.03
	<1	100.76	3.50	3.85	9.52
	<1	101.60	4.20	4.30	2.35

Certified by :


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

22/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA210031



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 05/01/2021

Sample description : Sixty-eight samples of water taken by the FTS staff on
05/01/2021

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA210031/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 05/01/2021

Date test commenced : 05/01/2021

Date test completed : 06/01/2021

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210031

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Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
1	WMS1/S/E	5	1
2	WMS1/S/E Dup	5	
3	WMS1/B/E	5	
4	WMS1/B/E Dup	5	
5	WMS2/S/E	4	
6	WMS2/S/E Dup	4	
7	WMS2/B/E	3	
8	WMS2/B/E Dup	4	
9	WMS3/M/E	10	
10	WMS3/M/E Dup	10	
11	WMS4/M/E	5	
12	WMS4/M/E Dup	5	
13	WMS5/M/E	4	
14	WMS5/M/E Dup	4	
15	WMS6/S/E	3	
16	WMS6/S/E Dup	3	
17	WMS6/M/E	5	
18	WMS6/M/E Dup	5	
19	WMS6/B/E	10	
20	WMS6/B/E Dup	10	
21	WMS1/S/F	7	
22	WMS1/S/F Dup	7	
23	WMS1/B/F	10	
24	WMS1/B/F Dup	10	
25	WMS2/S/F	10	
26	WMS2/S/F Dup	10	
27	WMS2/B/F	4	
28	WMS2/B/F Dup	4	
29	WMS3/M/F	4	
30	WMS3/M/F Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210031

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	5	1
32	WMS4/M/F Dup	4	
33	WMS5/M/F	12	
34	WMS5/M/F Dup	12	
35	WMS6/S/F	4	
36	WMS6/S/F Dup	4	
37	WMS6/M/F	3	
38	WMS6/M/F Dup	3	
39	WMS6/B/F	3	
40	WMS6/B/F Dup	3	
41	I1/S/F	11	
42	I1/S/F Dup	10	
43	I1/M/F	11	
44	I1/M/F Dup	10	
45	I1/B/F	8	
46	I1/B/F Dup	8	
47	I2/S/E	10	
48	I2/S/E Dup	10	
49	I2/M/E	5	
50	I2/M/E Dup	5	
51	I2/B/E	12	
52	I2/B/E Dup	11	
53	C1/S/F	8	
54	C1/S/F Dup	8	
55	C1/M/F	13	
56	C1/M/F Dup	12	
57	C1/B/F	10	
58	C1/B/F Dup	10	
59	C2/S/E	10	
60	C2/S/E Dup	10	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 21/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210031

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C2/B/E	10	1
62	C2/B/E Dup	10	
63	C3/S/E	14	
64	C3/S/E Dup	13	
65	C3/M/E	9	
66	C3/M/E Dup	9	
67	C3/B/E	4	
68	C3/B/E Dup	3	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by:

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

21/1/2021

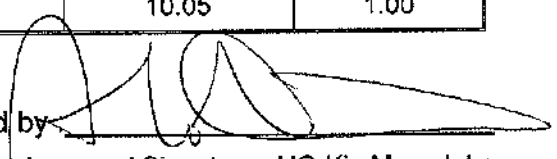
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	100.70	3.70	3.60	2.74
	<1	99.46	3.20	3.35	4.58
	<1	101.46	10.75	11.80	9.31
	<1	100.00	9.95	10.05	1.00

Certified by


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 22/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA210032



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 07/01/2021

Sample description : Sixty-eight samples of water taken by the FTS staff on
07/01/2021

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA210032/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 07/01/2021

Date test commenced : 07/01/2021

Date test completed : 08/01/2021

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210032

Page 2 of 4


Results :

Sample Identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
1	WMS1/S/E	6	1
2	WMS1/S/E Dup	5	
3	WMS1/B/E	5	
4	WMS1/B/E Dup	5	
5	WMS2/S/E	6	
6	WMS2/S/E Dup	6	
7	WMS2/B/E	8	
8	WMS2/B/E Dup	8	
9	WMS3/M/E	4	
10	WMS3/M/E Dup	4	
11	WMS4/M/E	4	
12	WMS4/M/E Dup	4	
13	WMS5/M/E	4	
14	WMS5/M/E Dup	4	
15	WMS6/S/E	5	
16	WMS6/S/E Dup	5	
17	WMS6/M/E	4	
18	WMS6/M/E Dup	4	
19	WMS6/B/E	6	
20	WMS6/B/E Dup	7	
21	WMS1/S/F	10	
22	WMS1/S/F Dup	10	
23	WMS1/B/F	10	
24	WMS1/B/F Dup	10	
25	WMS2/S/F	5	
26	WMS2/S/F Dup	5	
27	WMS2/B/F	5	
28	WMS2/B/F Dup	5	
29	WMS3/M/F	9	
30	WMS3/M/F Dup	9	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 26/11/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210032

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
31	WMS4/M/F	10	1
32	WMS4/M/F Dup	10	
33	WMS5/M/F	4	
34	WMS5/M/F Dup	4	
35	WMS6/S/F	11	
36	WMS6/S/F Dup	11	
37	WMS6/M/F	9	
38	WMS6/M/F Dup	9	
39	WMS6/B/F	11	
40	WMS6/B/F Dup	11	
41	I1/S/F	14	
42	I1/S/F Dup	13	
43	I1/M/F	11	
44	I1/M/F Dup	11	
45	I1/B/F	12	
46	I1/B/F Dup	12	
47	I2/S/E	5	
48	I2/S/E Dup	4	
49	I2/M/E	4	
50	I2/M/E Dup	4	
51	I2/B/E	4	
52	I2/B/E Dup	4	
53	C1/S/F	10	
54	C1/S/F Dup	10	
55	C1/M/F	13	
56	C1/M/F Dup	12	
57	C1/B/F	10	
58	C1/B/F Dup	10	
59	C2/S/E	11	
60	C2/S/E Dup	11	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/1/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210032

Page 4 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
61	C2/B/E	13	1
62	C2/B/E Dup	13	
63	C3/S/E	11	
64	C3/S/E Dup	11	
65	C3/M/E	11	
66	C3/M/E Dup	11	
67	C3/B/E	10	
68	C3/B/E Dup	10	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 26/1/2021

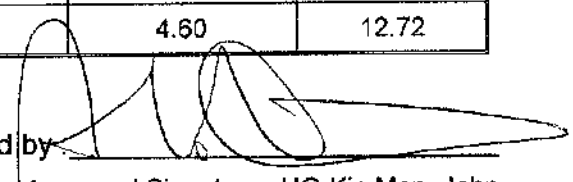
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	98.06	4.90	5.05	3.02
	<1	99.60	10.30	10.10	1.96
	<1	100.30	3.80	3.90	2.60
	<1	99.46	4.05	4.60	12.72

Certified by:


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/11/2024

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA210044



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 09/01/2021

Sample description : Sixty-four samples of water taken by the FTS staff on
09/01/2021

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA210044/1 - 64

Sample temperature : 6.1°C
being received

Date of receipt of sample : 09/01/2021

Date test commenced : 09/01/2021

Date test completed : 11/01/2021

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210044

Page 2 of 4


Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
1	WMS1/S/E	5	1
2	WMS1/S/E Dup	5	
3	WMS1/B/E	5	
4	WMS1/B/E Dup	5	
5	WMS2/S/E	5	
6	WMS2/S/E Dup	5	
7	WMS2/B/E	6	
8	WMS2/B/E Dup	6	
9	WMS3/M/E	6	
10	WMS3/M/E Dup	6	
11	WMS4/M/E	7	
12	WMS4/M/E Dup	7	
13	WMS5/M/E	6	
14	WMS5/M/E Dup	6	
15	WMS6/S/E	7	
16	WMS6/S/E Dup	6	
17	WMS6/B/E	6	
18	WMS6/B/E Dup	6	
19	WMS1/S/F	4	
20	WMS1/S/F Dup	5	
21	WMS1/B/F	5	
22	WMS1/B/F Dup	5	
23	WMS2/S/F	6	
24	WMS2/S/F Dup	6	
25	WMS2/B/F	6	
26	WMS2/B/F Dup	6	
27	WMS3/M/F	9	
28	WMS3/M/F Dup	9	
29	WMS4/M/F	4	
30	WMS4/M/F Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/1/2024

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210044

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS5/M/F	6	1
32	WMS5/M/F Dup	6	
33	WMS6/S/F	5	
34	WMS6/S/F Dup	5	
35	WMS6/B/F	6	
36	WMS6/B/F Dup	6	
37	I1/S/F	6	
38	I1/S/F Dup	6	
39	I1/M/F	12	
40	I1/M/F Dup	12	
41	I1/B/F	11	
42	I1/B/F Dup	10	
43	I2/S/E	11	
44	I2/S/E Dup	10	
45	I2/M/E	8	
46	I2/M/E Dup	8	
47	I2/B/E	7	
48	I2/B/E Dup	7	
49	C1/S/F	9	
50	C1/S/F Dup	9	
51	C1/M/F	7	
52	C1/M/F Dup	7	
53	C1/B/F	8	
54	C1/B/F Dup	8	
55	C2/S/E	7	
56	C2/S/E Dup	7	
57	C2/B/E	7	
58	C2/B/E Dup	7	
59	C3/S/E	6	
60	C3/S/E Dup	6	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/1/2021

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Page 4 of 4


Results :

Sample identification		Test result	Reporting limit,
		Total suspended solids dried at 103°C – 105°C, mg/L	mg/L
61	C3/M/E	5	1
62	C3/M/E Dup	5	
63	C3/B/E	8	
64	C3/B/E Dup	8	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by:

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

: 26/1/2021

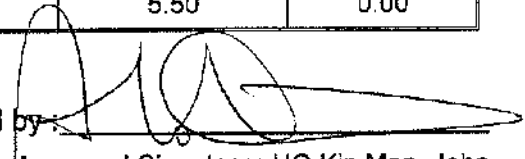
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	97.00	5.40	5.30	1.87
	<1	99.40	6.20	6.40	3.17
	<1	99.46	5.40	5.35	0.93
	<1	101.00	5.50	5.50	0.00

Certified by:


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date

:

26/1/2021

Note : This report refers only to the sample(s) tested.

Report No. : 203480WA210063



Page 1 of 4

**Test Report on Analysis of Water****Information Supplied by Client**

Client : Allied Environmental Consultants LTD

Client's address : 27/F, Overseas Trust Bank Building, 160 Gloucester Road
Wan Chai, Hong Kong

Project : Provision of Air, Noise and Quality Water Monitoring for Contract
No. SD 2/2020 Sewerage Works at Po Toi O

Sampling date : 12/01/2021

Sample description : Sixty-eight samples of water taken by the FTS staff on
12/01/2021

Client sample ID : Refer to pages 2 to 4

Tests required : Total suspended solids dried at 103°C – 105°C

Laboratory Information

Lab. sample ID : WA210063/1 - 68

Sample temperature : 6.1°C
being received

Date of receipt of sample : 12/01/2021

Date test commenced : 12/01/2021

Date test completed : 13/01/2021

Test method used : APHA 17th ed, 2540D

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210063

Page 2 of 4


Results :

Sample Identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
1	WMS1/S/E	4	1
2	WMS1/S/E Dup	5	
3	WMS1/B/E	7	
4	WMS1/B/E Dup	7	
5	WMS2/S/E	4	
6	WMS2/S/E Dup	5	
7	WMS2/B/E	4	
8	WMS2/B/E Dup	4	
9	WMS3/M/E	7	
10	WMS3/M/E Dup	8	
11	WMS4/M/E	8	
12	WMS4/M/E Dup	8	
13	WMS5/M/E	4	
14	WMS5/M/E Dup	4	
15	WMS6/S/E	4	
16	WMS6/S/E Dup	4	
17	WMS6/M/E	4	
18	WMS6/M/E Dup	4	
19	WMS6/B/E	6	
20	WMS6/B/E Dup	6	
21	WMS1/S/F	5	
22	WMS1/S/F Dup	5	
23	WMS1/B/F	6	
24	WMS1/B/F Dup	6	
25	WMS2/S/F	5	
26	WMS2/S/F Dup	4	
27	WMS2/B/F	4	
28	WMS2/B/F Dup	4	
29	WMS3/M/F	4	
30	WMS3/M/F Dup	4	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/11/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210063

Page 3 of 4


Results :

Sample identification		Test result	Reporting limit, mg/L
		Total suspended solids dried at 103°C – 105°C, mg/L	
31	WMS4/M/F	6	1
32	WMS4/M/F Dup	6	
33	WMS5/M/F	3	
34	WMS5/M/F Dup	3	
35	WMS6/S/F	5	
36	WMS6/S/F Dup	4	
37	WMS6/M/F	4	
38	WMS6/M/F Dup	4	
39	WMS6/B/F	4	
40	WMS6/B/F Dup	4	
41	I1/S/F	4	
42	I1/S/F Dup	4	
43	I1/M/F	3	
44	I1/M/F Dup	3	
45	I1/B/F	4	
46	I1/B/F Dup	4	
47	I2/S/E	4	
48	I2/S/E Dup	4	
49	I2/M/E	3	
50	I2/M/E Dup	4	
51	I2/B/E	4	
52	I2/B/E Dup	4	
53	C1/S/F	3	
54	C1/S/F Dup	3	
55	C1/M/F	8	
56	C1/M/F Dup	8	
57	C1/B/F	9	
58	C1/B/F Dup	9	
59	C2/S/E	10	
60	C2/S/E Dup	10	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/11/2021

Note : This report refers only to the sample(s) tested.

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Report No. : 203480WA210063

Page 4 of 4


Results :

Sample identification		Test result Total suspended solids dried at 103°C – 105°C, mg/L	Reporting limit, mg/L
61	C2/B/E	4	1
62	C2/B/E Dup	4	
63	C3/S/E	4	
64	C3/S/E Dup	4	
65	C3/M/E	3	
66	C3/M/E Dup	3	
67	C3/B/E	5	
68	C3/B/E Dup	5	

Remark: Disclaimer: Sampling is out of scope of accreditation.

Certified by :

Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date : 26/1/2021

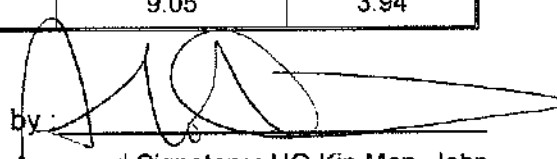
**** End of Report ****
Note : This report refers only to the sample(s) tested.

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Note
Laboratory Duplicate, Quality Assurance/Quality Control Report

Total suspended solids dried at 103°C – 105°C					
Detection Limit	Blank	Spike recovery (%)	Original result	Duplicate result	RPD%
1 mg/L	<1	99.36	4.30	4.45	3.43
	<1	100.56	3.80	3.75	1.32
	<1	100.10	7.95	7.95	0.00
	<1	102.36	8.70	9.05	3.94

Certified by :


Approved Signatory : HO Kin Man, John
Assistant General Manager – Laboratories

Date :

26/1/2021

Note : This report refers only to the sample(s) tested.

Appendix 5-5

Event and Action Plan for Water Quality Impact Monitoring

Appendix 5-5 Event and Action Plan for Water Quality Impact Monitoring

EVENT	ACTION			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling day	1. Repeat in situ measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor and ER; 4. Check monitoring data, all plant, equipment and Contractor's working methods. 5. Discuss mitigation measures with IEC and Contractor.	1. Check monitoring data submitted by ET and Contractor's working methods. 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly.	1. Confirm receipt of notification of non-compliance in writing; 2. Discuss with IEC on possible remedial actions; 3. Make agreement on the mitigation measures to be implemented.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of mitigation measures to ER within 3 working days of notification and discuss with ET, IEC and ER. 5. Implement the agreed mitigation measures.

EVENT	ACTION			
	ET	IEC	ER	Contractor
Action level being exceeded by more than one consecutive sampling days	1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, ER and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Action level.	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; 4. Supervise the implementation of mitigation measures.	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Ensure mitigation measures are properly implemented by the Contractor; 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of additional mitigation measures to ER within 3 working days of notification and discuss with ET, IEC and ER; 5. Implement the agreed mitigation measures.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
LIMIT LEVEL				
Limit level being exceeded by one sampling day	1. Repeat measurement on next day of exceedance to confirm findings; 2. Identify source(s) of impact; 3. Inform IEC, contractor, ER and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor.	1. Check monitoring data submitted by ET and Contractor's working method; 2. Discuss with ET and Contractor on possible remedial actions; 3. Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly	1. Confirm receipt of notification of failure in writing; 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to review the working methods.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Submit proposal of mitigation measures to ER within 3 working days of notification and discuss with ET, IEC and ER.

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
LIMIT LEVEL				
	1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; 5. If exceedance continues, investigate what portion of the work is responsible and instruct the Contractor to terminate that portion of work until the exceedance ceases.	6. Take immediate action to avoid further exceedance; 7. Submit proposals for remedial actions to ER with copy to ET and IEC within 3 working days of notification; 8. Implement the agreed proposals; 9. Resubmit proposals if problem still not under control; 10. Terminate the relevant portion of works as determined by the ER until the exceedance ceases.