

#### Monthly EM&A Report (February 2023)

Contract No.	:	DPW 01/2020
Contract Name	:	Environmental Team for Drainage Improvement Works at Ngong Ping (Contract No. DC/2019/06)
Report No.	:	0118/20/ED/0580
EP No.	:	EP-456/2013/B

Prepared by :

Michelle Shum

Reviewed by :

Rex Chow

Calvin Leung

Certified by :

Calvin M.P. Leung Environmental Team Leader





Drainage Services Department 45/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong

Attention: Mr. Dave CHOI (Engineer/ Drainage Projects 14)

11 March 2023

Dear Dave,

Drainage Improvement Works at Ngong Ping Monthly EM&A Report for February 2023

I refer to the email concerning the captioned. I have no adverse comment on the Monthly Environmental Monitoring and Audit Report for February 2023 (Rev. 0) with report number 0118/20/ED/0580 and verify the report according to Conditions 1.9 and 4.4 of Environmental Permit with permit number EP-456/2013/A.

Yours faithfully,

Toamp Jan Bearg

F.C. Tsang Independent Environmental Checker

cc. ETL - Calvin Leung

## **Document Control**

#### **Document Information**

Project Title	Drainage Improvement Works at Ngong Ping	
Document Title	Monthly EM&A Report (February 2023)	
Fugro Project No.	0118/20	
Fugro Document No.	0118/20/ED/0580	
Issue Number	1	

#### **Client Information**

Client	Drainage Services Department	
Client Address	45/F, Revenue Tower, 5 Gloucester Road, Wan Chai, Hong Kong	
Client Contact	Mr. Dave Choi	

#### **Document Status**

01	Rev. 0	Michelle Shum	Rex Chow	Calvin M.P. Leung	9 March 2023
Issue	Document Status	Prepared by	Reviewed by	Certified by	Date



## Contents

Doo	cument Control	ii
Doc	cument Information	ii
Clie	ent Information	ii
Doc	cument Status	ii
Cor	ntents	1
Арр	pendices	3
Figu	ures	3
EXE	CUTIVE SUMMARY	1
1.	INTRODUCTION	2
1.1	Background	2
1.2	Project Organization and Management Structure	2
1.3	Construction Programme and Activities	2
1.4	Works Undertaken During the Month	3
1.5	Waste Management Status	3
2.	ENVIRONMENTAL STATUS	4
3.	SUMMARY OF EM&A REQUIREMENTS	5
3.1	Monitoring Parameters	5
3.2	Environmental Quality Performance Limits (Action and Limit Levels)	5
3.3	Event and Action Plans	5
3.4	Environmental Mitigation Measures as Recommended in the EIA Report	5
3.5	Environmental Requirements in Contract Documents	5
3.6	Site Inspection	6
3.7	Ecology	6
3.8	Landscape and Visual Impact	7
3.9	Cultural Heritage	7
3.10	) Waste Management	8
4.	IMPLEMENTATION STATUS	9
5.	MONITORING RESULTS	9
5.1	Monitoring Methodology	9
5.2	Laboratory and Equipment Used and Calibration	10
5.3	Parameters, Monitoring Date, Time, Frequency and Duration	11
5.4	Monitoring Locations	12
5.5	Results and Observations	13
5.6	Comparisons of Monthly EM&A Data with the EIA Predictions	14

6.	NON-COMPLIANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION	15
6.1	Non-compliance (Exceedances)	15
6.2	Complaints Received	15
6.3	Notification of Summons and Successful Prosecution	15
7.	FUTURE KEY ISSUES	16
7.1	Construction Works for Next Three Month	16
7.2	Monitoring Schedules for Next Three Month	16
8.	COMMENTS, RECOMMENDATIONS AND CONCLUSIONS	17

## Appendices

**Appendix A Project Organization and Management Structure** 

**Appendix B1 Construction Programme** 

**Appendix B2 Works undertaken Illustrations** 

Appendix B3 Proactive Environmental Protection or Control Measures for Next Three Month

Appendix B4 Waste Flow Table

Appendix C1 EP-456/2013/B Conditions

Appendix C2 Mitigation Measures Implementation (Construction Phase)

**Appendix C3 Summary of Site Inspection** 

**Appendix D Monitoring Parameters Action and Limit Levels** 

**Appendix E Event and Action Plans** 

Appendix F1 Equipment Calibration Certificates (Noise Monitoring)

Appendix F2 Equipment Calibration Certificates (Water Quality Monitoring)

**Appendix G Environmental Monitoring Schedules** 

**Appendix H1 Noise Monitoring Data and Graphical Presentations** 

Appendix H2 Water Quality Monitoring Data and Graphical Presentations

Appendix I Statistics on Exceedances, Complaints, Notifications of Summons and Prosecutions

**Appendix J Weather Condition** 

### Figures

Figure 1 Project Location	
Figure 2a Noise Monitoring Locations (Part 1)	
Figure 2b Noise Monitoring Locations (Part 2)	
Figure 2c Water Quality Monitoring Locations	

## **EXECUTIVE SUMMARY**

i. This is the 26<sup>th</sup> monthly EM&A Report which summaries the results and findings of the EM&A programme required for the Project from 1 February to 28 February 2023.

#### **Breaches of Action and Limit Levels**

#### Noise

ii. No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.

#### <u>Water Quality</u>

iii. No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.

#### **Complaint log**

iv. No Complaint was recorded in the reporting period.

#### **Notifications of Summons and Successful Prosecutions**

v. No notifications of Summon and Successful Prosecution was recorded in the reporting period.

#### Reporting Change

vi. There was no reporting change required in the reporting period.

#### Future Key Issues

vii. During the next three month reporting period, the principal work activities within the site included:

#### Portion A

- Receiving Pit excavation
- TBM operation

#### Portion B

- Excavation of box culvert
- Launching pit excavation
- TBM operation
- viii. The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

## 1. INTRODUCTION

#### 1.1 Background

- 1.1.1 To enhance the capacity of the trunk drainage system and reduce the flood risk in Ngong Ping, long term drainage improvement works are proposed to be implemented under "PWP Item No. 4163CD – Drainage Improvement Works at Ngong Ping" (hereafter referred to as "the Project").
- 1.1.2 The Project is a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap.499). An Environmental Impact Assessment (EIA) Report together with an Environmental Monitoring and Audit (EM&A) Manual (hereafter referred to as the "approved EM&A Manual") (Register No. AEIAR-169/2013 was prepared for the Project and approved by Environmental Protection Department (EPD) on 21 April 2013. A Variation of an Environmental Permit (Application No. VEP-599/2021) EP-456/2013/B was issued on 26 August 2021 and it is the current permit for the Project. These documents are available through the EIAO Register.
- 1.1.3 Fugro Technical Services Limited (FTS) has been appointed as the Environmental Team (ET) by Drainage Services Department (DSD) to implement the EM&A programme in accordance with the EP No. EP-456/2013/B and the approved EM&A Manual.
- 1.1.4 The construction phase and EM&A programme of the Project commenced on 2 January 2021.
- 1.1.5 This is the 26<sup>th</sup> monthly EM&A Report which summaries the results and findings of the EM&A programme required for the Project from 1 February to 28 February 2023.
- **1.2** Project Organization and Management Structure
- 1.2.1 The environmental Project Organization and Management Structure is shown in Appendix A. The key personnel contact names and numbers are summarized in Table 1.1.

Party	Position	Name	Telephone
Drainage Services Department, HKSAR (DSD)	Engineer	Mr. Dave Choi	2594 7348
Acuity Sustainability Consulting Limited (ASC)	IEC	Mr. F.C. Tsang	2698 8060
Contractor (Ming Hing)	Environmental Officer	Mr. Jason Wong	9744 2390
Fugro Technical Services Limited (FTS)	ET Leader	Mr. Calvin Leung	3565 4441

 Table 1.1
 Contact Information of Key Personnel

#### **1.3** Construction Programme and Activities

- 1.3.1 The construction phase of the Project under the EP commenced on 2 January 2021.
- 1.3.2 The construction programme of the Project is shown in Appendix B1.

#### **1.4** Works Undertaken During the Month

1.4.1 During this reporting period, the principal work activities within the site included:

#### Portion A

- Receiving Pit excavation
- TBM operation

#### Portion B

- Excavation of box culvert
- Launching pit excavation
- TBM operation
- 1.4.2 Illustrations of works undertaken during the reporting period are shown in Appendix B2.
- **1.5** Waste Management Status
- 1.5.1 The amount of wastes generated within the Project during the reporting period is shown in Appendix B4.

## 2. ENVIRONMENTAL STATUS

#### EP No. EP-456/2013/B Conditions

2.1.1 Status of EP No. EP-456/2013/B Conditions are summarized in Appendix C1.

#### **Mitigation Measures Implementation**

2.1.2 Implementation of environmental mitigation measures are summarized in Appendix C2.

#### **Environmental Licences, Notification and Permits**

2.1.3 A summary of the relevant permits, licences and/or notifications on environmental protection for this Contract is presented in Table 2.1.

#### Table 2.1 Environmental Licences, Notification and Permits Summary

Permit / Notification / License	Ref No	Valid From	Valid Till
Environmental Permit	EP-456/2013/B	26/08/2021	N/A
Wastewater Discharge License	EP/RS0000458474	23/9/2022	30/9/2027
Notification pursuant to Air Pollution (Construction Dust) Regulation	462432	01/12/2020	N/A
Billing Account	7038098	26/08/2020	N/A
Chemical Waste Producer	5213-941-M2935-04	05/05/2021	N/A

## Project Area, Environmental Sensitive Receivers and Locations of Monitoring and Control Stations

2.1.4 Project location, Environmental sensitive receivers and locations of the monitoring and control stations are shown in Figure 1, 2a-2c.

## 3. SUMMARY OF EM&A REQUIREMENTS

- 3.1 Monitoring Parameters
- 3.1.1 Detailed of monitoring parameters are shown in Section 5.3.
- **3.2** Environmental Quality Performance Limits (Action and Limit Levels)
- 3.2.1 The monitoring parameters action and limit levels are shown in Appendix D.
- 3.3 Event and Action Plans
- 3.3.1 The Event and Action Plans are shown in Appendix E.
- **3.4** Environmental Mitigation Measures as Recommended in the EIA Report
- 3.4.1 Implementation of environmental mitigation measures are summarized in Appendix C2.
- **3.5** Environmental Requirements in Contract Documents
- 3.5.1 In order to ensure the works are in compliance with the contractual requirements, all method statements of major works should be submitted by the Contractor to the Engineer and the ET for vetting so as to ensure whether sufficient environmental protection and pollution control measures have been incorporated. Detailed ET's vetting contract documents in reporting period are summarized in Table 3.1:

 Table 3.1
 ET's vetting Contract Documents Summary

#### **ET's vetting Contract Documents**

Status

NIL

#### **3.6** Site Inspection

- 3.6.1 Site inspections should be conducted regularly to ensure that appropriate environmental protection and pollution control mitigation measures are properly implemented for the construction works activities associated with the drainage improvement works at Ngong Ping.
- 3.6.2 A summary of the ET's site inspection in the reporting period is presented in Table 3.2.

 Table 3.2
 Site Inspection Date Summary

Inspection Date
Weekly Site Inspection
07/02/2023
17/02/2023
21/02/2023
28/02/2023
Landscape and Visual
07/02/2023
21/02/2023
Cultural Heritage
28/02/2023
Post-transplantation Works
Floral Protection Measures
17/02/2023

- 3.6.3 Detailed site inspections summary is presented in Appendix C3.
- 3.7 Ecology
- 3.7.1 The EIA has recommended that an EM&A for ecology is undertaken during the construction and operational / post-construction phases of the project. Certain construction phase mitigation measures and EM&A, such as surveys and subsequent transplantation of floral species would need to be undertaken in the pre-construction phase, or baseline phase of the works.
- 3.7.2 The construction phase ecological audit is concerned with checking the effectiveness of the implementation of the ecology transplantation/translocation and protection measures, together with auditing the effectiveness of the overall ecological site mitigation.
- 3.7.3 Refer to the EM&A Manual Table 5.2, the EM&A requirement in construction phase are summarized as below:
  - ~ Weekly audit of Enhancement planting and construction run-off.
  - ~ Monthly audit of the implementation of Floral Protection Plan.
  - ~ Monthly audit of the transplanted species for the first 12 months after the transplantation.
  - ~ Quarterly audit the transplanted species between months 12 to 24 after the transplantation.

- 3.7.4 A summary of the ET's site inspection in the reporting period is presented in Table 3.2 and the detailed site inspections is presented in Appendix C3.
- 3.7.5 To avoid uprooting and washing away of remaining transplanted floral species of conservation importance during adverse weather, preventive measure such as enhanced visual checking of the soil stability during advance notice of adverse weather conditions (i.e. Typhoon Signal Nos. 8 to 10 and Black, Red, and Yellow Rainstorm) is recommended.
- 3.7.6 Implementation of environmental mitigation measures are summarized in Appendix C2.
- 3.8 Landscape and Visual Impact
- 3.8.1 The EIA has recommended that EM&A for landscape and visual resources is undertaken during the construction and operational phases of the project. The design, implementation and maintenance of landscape mitigation measures is a key aspect of this and should be checked to ensure that they are fully realised and that potential conflicts between the proposed landscape measures and any other project works and operational requirements are resolved at the earliest possible date and without compromise to the intention of the mitigation measures. In addition, the implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.
- 3.8.2 Site inspections should be undertaken at least once every two weeks throughout the construction period and once every two months during the operational phase.
- 3.8.3 A summary of the ET's site inspection in the reporting period is presented in Table 3.2 and the detailed site inspections is presented in Appendix C3.
- 3.8.4 Implementation of environmental mitigation measures are summarized in Appendix C2.

#### **3.9** Cultural Heritage

- 3.9.1 The EIA has recommended that the EM&A for cultural heritage resources is undertaken during the construction phase of the project. Implementation of the mitigation measures recommended by the EIA will be monitored through the site audit programme.
- 3.9.2 All measures undertaken by the Contractor during the construction phase in the vicinity of the six heritage resources shall be audited by a qualified building surveyor, as a member of the Environmental Team (ET), on a monthly basis to ensure compliance with the intended aims of the recommended mitigation measures.
- 3.9.3 A summary of the ET's site inspection in the reporting period is presented in Table 3.2 and the detailed site inspections is presented in Appendix C3.
- 3.9.4 Crack monitoring devices was installed at NP-10 and NP-11.
- 3.9.5 Implementation of environmental mitigation measures are summarized in Appendix C2.

#### **3.10** Waste Management

- 3.10.1 With the proper handling, storage and disposal of wastes arising from the construction works as recommended in the Environmental Mitigation Implementation Schedule in Appendix A of this EM&A Manual, the potential for adverse environmental impacts would be minimised. During site inspections, the Engineer and ET should pay special attention to the issues relating to the waste management and check whether the Contractor has implemented the recommended good site practices and other mitigation measures.
- 3.10.2 The amount of wastes generated within the Project during the reporting period is shown in Appendix B4.
- 3.10.3 A summary of the ET's site inspection in the reporting period is presented in Table 3.2 and the detailed site inspections is presented in Appendix C3.
- 3.10.4 Implementation of environmental mitigation measures are summarized in Appendix C2.

## 4. IMPLEMENTATION STATUS

4.1.1 The implementation status of environmental protection and pollution control/ mitigation measures as recommended in the EIA report/ EM&A Manual in the reporting period were updated and shown in Appendix C2.

### 5. MONITORING RESULTS

#### 5.1 Monitoring Methodology

#### <u>Noise</u>

- 5.1.1 The monitoring methodology and the QA/QC procedures are as follows:
  - The monitoring station will set at a point 1m from the exterior of the sensitive receivers building façade and set at a position 1.2m above the ground.
  - The battery condition will check to ensure good functioning of the meter.
  - Parameters such as frequency weighting, the time weighting and the measurement time will set as follows:
    - frequency weighting : A
    - time weighting : Fast
    - measurement time : continue 5 minutes interval
  - Prior to and after noise measurement, the meter will be calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement will be considered invalid and repeat of noise measurement is required after re-calibration or repair of the equipment.
  - The wind speed at the monitoring station will check with the portable wind meter. Noise monitoring shall be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.
  - Noise measurement shall be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
  - The supplementary information for data auditing and statistical results (e.g. L10 and L90), shall be obtained for reference.

Maintenance / Calibration

- The microphone head of the sound level meter and calibrator should be cleaned with a soft cloth at quarterly intervals.
- The sound level meter and calibrator should be calibrated annually by a HOKLAS laboratory or the manufacturer.
- 5.1.2 The weather conditions during the reporting period are shown in Appendix J.

#### Water Quality

- 5.1.3 In accordance with the recommendations of the EIA, construction phase water quality EM&A is required. Water quality parameters comprising: (i) suspended solids (SS); (ii) turbidity in Nephelometric Turbidity Units (NTU); (iii) dissolved oxygen (DO) in mg/L; and (iv) pH, shall be measured by the Environmental Team (ET) at locations which are within the potential influence of construction works at least three times per week to ensure that any deteriorating water quality could be readily detected and timely action be taken to rectify the situation. The first parameter, SS, shall be determined in the laboratory, with the other parameters measured insitu using direct reading instrumentation.
- 5.1.4 In association with the water quality parameter measurements, relevant data shall also be measured, including the monitoring location/position, time, water depth, water temperature, salinity, DO saturation, weather conditions if appropriate, and any special phenomena and work underway at the construction site.
- 5.1.5 Only one sampling depth will be required for the streams, which shall be collected at mid depth. Replicates (2 samples) in-situ from each independent sampling event are required for all parameters to ensure a robust statistically interpretable data set.
- 5.1.6 In addition, duplicated water samples for suspended solid analysis shall be collected at all the above stations and delivered to the HOKLAS accredited laboratory for analysis. Results for suspended solids shall be received back from the laboratory within 24hour of the receipt of the samples.
- 5.1.7 The Impact Monitoring shall be taken at the designated monitoring stations when construction works in the relevant Works Sections, designated working area (WA) and stockpiling area (SA) is ongoing. The monitoring shall be conducted at least 3 times a week and the interval between two sets of monitoring shall not be less than 36 hours. The parameters to be monitored, the monitoring procedures and equipment shall be the same as the Baseline Monitoring. The Impact Monitoring at a particular Works Section shall not be ceased with the ER, IEC and EPD agreement.
- 5.1.8 The weather conditions during the reporting period are shown in Appendix J.
- 5.2 Laboratory and Equipment Used and Calibration

#### <u>Noise</u>

5.2.1 Table 5.1a summarizes the noise monitoring equipment model used for this project.

Table 5.1a	Noise Monitoring Equipment		
Manufacturer/ Bi	rand Model	Equipment	Quantity
Casalla	CEL-63X Series	Sound Level Meter	3
Casella	CEL-120/1	Sound Calibrator	3

Table 5.1a Noise Monitoring Equipment

5.2.2 Relevant calibration certificates are provided in Appendix F1.

#### Water Quality

- 5.2.3 Analysis of suspended solids was carried out in HOKLAS environmental testing laboratory (Registration No.: HOKLAS 015) to this parameter.
- 5.2.4 Table 5.1b summarizes the water quality monitoring equipment model used for this project.

Table 5.1b   Water Quality Monitoring Equipment			
Manufacturer,	/ Brand Model	Equipment	Quantity
In-Situ	YSI EXO-3	Multi-parameter Water Quality Meter	1

5.2.5 Relevant calibration certificates are provided in Appendix F2.

#### **5.3** Parameters, Monitoring Date, Time, Frequency and Duration

#### <u>Noise</u>

5.3.1 Table 5.2 presents the noise monitoring parameters, frequencies and period.

 Table 5.2
 Monitoring Parameters and Frequencies of Noise Monitoring

Parameter	Frequency and Period
LAeq (30 min) in normal weekdays and	0700-1900 on normal weekdays at a frequency of once
(L <sub>10</sub> and L <sub>90</sub> will be recorded for reference)	a week

5.3.2 The schedule of noise monitoring in reporting period is provided in Appendix G.

#### **Water Quality**

- 5.3.3 In accordance with the recommendations of the EIA, water quality parameters comprising: (i) suspended solids (SS); (ii) turbidity in Nephelometric Turbidity Units (NTU); (iii) dissolved oxygen (DO) in mg/L; and (iv) pH, shall be measured by the Environmental Team (ET).
- 5.3.4 In association with the water quality parameter measurements, relevant data shall also be measured, including the monitoring location/position, time, water depth, water temperature, salinity, DO saturation, weather conditions if appropriate, and any special phenomena and work underway at the construction site.
- 5.3.5 The Impact Monitoring shall be taken at the designated monitoring stations when construction works in the relevant Works Sections, designated working area (WA) and stockpiling area (SA) is ongoing. The monitoring shall be conducted at least 3 times a week and the interval between two sets of monitoring shall not be less than 36 hours. The parameters to be monitored, the monitoring procedures and equipment shall be the same as the Baseline Monitoring. The Impact Monitoring at a particular Works Section shall not be ceased with the ER, IEC and EPD agreement.
- 5.3.6 The schedule of water quality monitoring in reporting period is provided in Appendix G.

#### 5.4 Monitoring Locations

#### <u>Noise</u>

#### 5.4.1 The noise monitoring locations are summarised in Table 5.3 and shown in Figure 2a-2b.

Table 5.3 Noise Monitoring Locations and Type of Measurement

NSRs*	Monitoring Location	Type of Measurement#	
NSR1	Columbarium of Po Lin Monastery	Free-field	
NSR5	Village House No. 49A	Free-field	
NSR8	Village House No. 34	Façade	

\* NSRs: Noise Sensitive Receivers

#For Free-field measurement, +3dB(A) should be added to the measured results.

#### **Water Quality**

#### 5.4.2 The water quality monitoring locations are shown in Table 5.4 and Figure 2c.

				Relevant Works	
Station	Туре	Easting	Northing	Section*	Remark
WS1-R1	Upstream reference	808664	813130	WS1/SA1	R2 in EIA
WS1-I1	Downstream impact	808535	813094	WS1/SA1	
WS1-R2	Upstream reference	808524	813134	WS1	W2 in EIA
WS1-I2	Downstream impact	808528	813101	WS1	
WS4-R3	Upstream reference	808214	813003	WS4/SA2	
WS4-I3	Downstream impact	808196	813042	WS4/SA2	
WS5-R4	Upstream reference	808096	813076	WS5/SA3	
WS5-I4	Downstream impact	808055	813115	WS5/SA3	
WS6-R5	Upstream reference	807983	813158	WS6/WA3	
WS6-I5	Downstream impact	807919	813155	WS6/WA3	
WS6-C1	Intermediate Control	807813	813214	WS6/SA4	W8 in EIA
WS6-R6	Upstream reference	807727	813249	WS6/WA4	
WS6-I6	Downstream impact	807762	813285	WS6/WA4	W9 in ElA

Table 5.4 Water Quality Monitoring Locations

\* Please refer to Figures 2.9a-2.9g of the EIA Report for the relevant Works Section (WS), and/or designated works area (WA) and stockpiling area (SA).

#### 5.5 Results and Observations

#### <u>Noise</u>

## 5.5.1 The monitoring data are summarized in Table 5.5. Detailed monitoring data and graphical presentations are shown in Appendix H1.

Table 5.5 Summary of Noise Monitoring Results

NSR	Μ		toring R lange) <sup>(2</sup>		Action Level	Limit Level <sup>(1)</sup>
NSR1 Columbarium of Po Lin Monastery	63.2	-	65.4	dB(A)		70 dB(A)
NSR5 Village House No. 49A	59.4	-	63.8	dB(A)	When one documented complaint is received.	75 dB(A)
NSR8 Village House No. 34	50.2	-	56.2	dB(A)	-	75 dB(A)

Note:

(1) 75 dB(A) for residential premises and 70 dB(A) for educational institutions, kindergartens, nurseries and all others where voice communication.

(2) Leq<sub>(30min)</sub> in dB(A), 0700-1900 hrs in normal weekdays.

(3) Free-field correction applied at NSR1 & NSR5.

#### **Water Quality**

## 5.5.2 The monitoring data are summarized in Table 5.6. Detailed monitoring data and graphical presentations are shown in Appendix H2.

Parameter(s)	Parameter(s) DO in mg/L					1	<b>urbidity</b>	/ in l	UTU				р	н			Suspended Solids in mg/L							
Station(s)	Min	-	Мах	(	Mean	)	Min	-	Max	(	Mean	)	Min	-	Мах	(	Mean	)	Min	-	Мах	(	Mean	)
WS1-R1																								
WS1-I1	8.36	-	9.76	(	8.98	)	1.10	-	1.50	(	1.28	)	6.80	-	6.90	(	6.82	)	1.00	-	1.00	(	1.00	)
WS1-R2	8.27	-	9.72	(	8.95	)	0.97	-	1.70	(	1.39	)	6.70	-	6.80	(	6.78	)	1.00	-	2.00	(	1.08	)
WS1-I2																								
WS4-R3																								
WS4-I3																								
WS5-R4	8.80	-	8.80	(	8.80	)	2.00	-	2.00	(	2.00	)	7.00	-	7.00	(	7.00	)	1.00	-	1.00	(	1.00	)
WS5-I4																								
WS6-R5																								
WS6-I5																								
WS6-C1	5.08	-	8.82	(	6.66	)	1.00	-	4.20	(	1.48	)	6.10	-	7.50	(	6.92	)	1.00	-	6.50	(	1.75	)
WS6-R6																								
WS6-I6																								

Table 5.6 Summary of Water Quality Monitoring Results

Remark:

1) Monitoring location dried up and detailed refer to Appendix H2.

#### Other factor influencing the monitoring results

#### <u>Noise</u>

5.5.3 There were no other noticeable external factors generally affecting the monitoring results in this reporting period.

#### Water Quality

- 5.5.4 The monitoring results may influence by the vicinity of the monitoring station or changes in the ambient conditions (e.g. rainstorms in the wet season).
- 5.6 Comparisons of Monthly EM&A Data with the EIA Predictions

#### <u>Noise</u>

5.6.1 The EM&A data was compared with the EIA predictions as summarized in Tables 5.7.

NSR	Predicted M Construction No	5	Мо	nitoring Resul (Range)	ts
NSR1 Columbarium of Po Lin Monastery	55 - 70	dB(A)	63.2	- 65.4	dB(A)
NSR5 Village House No. 49A	48 - 86	dB(A)	59.4	- 63.8	dB(A)
NSR8 Village House No. 34	51 - 73	dB(A)	50.2	- 56.2	dB(A)
Nota					

Table 5.7 Comparison of Noise Monitoring Data with EIA Predictions

Note

(1) Predicted Mitigated Construction Noise Levels refer to EIA Report Table 4.11.

5.6.2 The monitoring results in the reporting period in NSR1, NSR5 and NSR8 were within or below the ranges of the predicted mitigated construction noise levels in the EIA Report.

#### Water Quality

5.6.3 As no water quality prediction in EIA report, the ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

# 6. NON-COMPLIANCE, COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

6.1 Non-compliance (Exceedances)

#### <u>Noise</u>

6.1.1 No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.

#### Water Quality

- 6.1.2 No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.
- 6.2 Complaints Received
- 6.2.1 No complaints, were received in the reporting period.
- 6.3 Notification of Summons and Successful Prosecution
- 6.3.1 No notification of summons or successful prosecutions were received in the reporting period.
- 6.3.2 The Cumulative exceedances, complaint log, notification of summons and successful prosecutions are presented in Appendix I.

## 7. FUTURE KEY ISSUES

- 7.1 Construction Works for Next Three Month
- 7.1.1 During the next three month reporting period, the principal work activities within the site included:

#### Portion A

- Receiving Pit excavation
- TBM operation

#### Portion B

- Excavation of box culvert
- Launching pit excavation
- TBM operation
- 7.1.2 The anticipated impact of principal work activities within the site and the recommended mitigation measures are shown in Appendix B3.
- 7.2 Monitoring Schedules for Next Three Month
- 7.2.1 The tentative schedules for environmental monitoring for next three month are provided in Appendix G.

## 8. COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

#### **Effectiveness and Efficiency of Mitigation Measures**

8.1.1 The regularly site inspections and environmental impact monitoring ensured that all the environmental mitigation measures recommended in EM&A Manual were effectively implemented. Despite the deficiencies found during site audits, the Contractor had taken appropriate actions to rectify deficiencies within a reasonable timeframe, and no exceedance related to the project was observed. Therefore, the effectiveness and efficiency of the mitigation measures were considered satisfactory for most of the time.

#### Improvement in the EM&A Programme

8.1.2 The EM&A programme was considered successfully and adequately conducted in the reporting period.

#### **Conclusions**

8.1.3 This is the 26<sup>th</sup> monthly EM&A Report which summaries the results and findings of the EM&A programme required for the Project from 1 February to 28 February 2023.

<u>Noise</u>

8.1.4 No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.

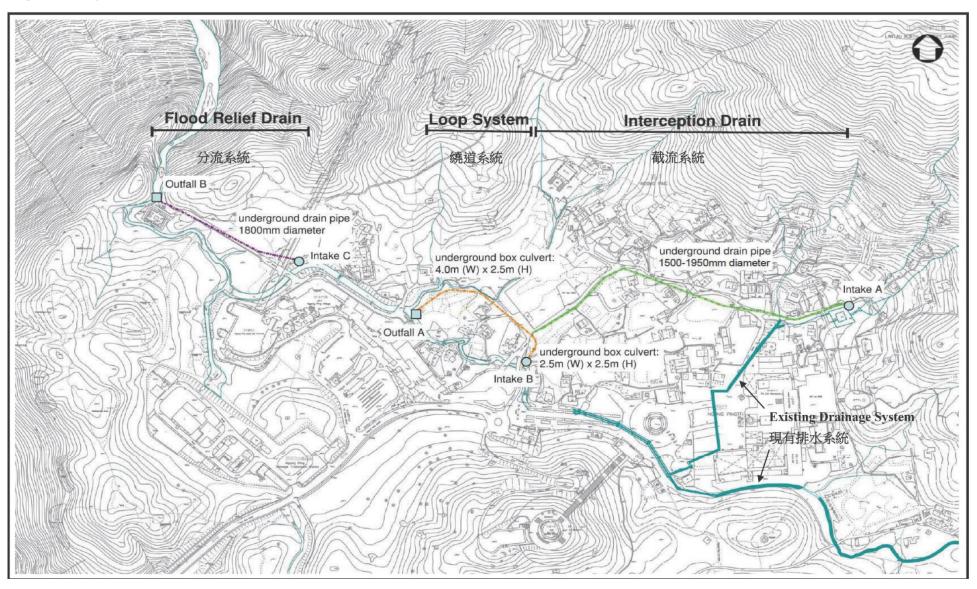
Water Quality

8.1.5 No Action or Limit Level Exceedance of monitoring was recorded in the reporting period.

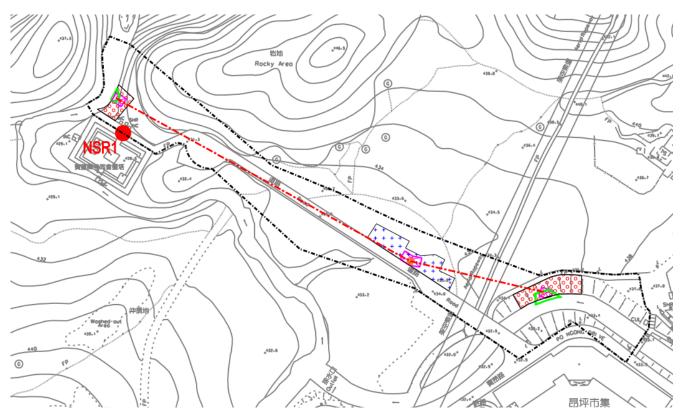
Complaint, Notifications of Summons and Successful Prosecutions

- 8.1.6 No complaints were received in the reporting period.
- 8.1.7 No notification of summons or successful prosecutions were received in the reporting period.
- 8.1.8 There was no reporting change required in the reporting period.
- 8.1.9 Potential environmental impacts due to the construction activities will be monitored or reviewed. The ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

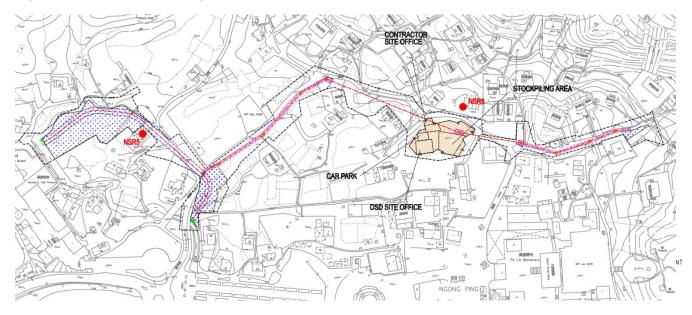
#### **Figure 1 Project Location**



#### Figure 2a Noise Monitoring Locations (Part 1)



#### Figure 2b Noise Monitoring Locations (Part 2)

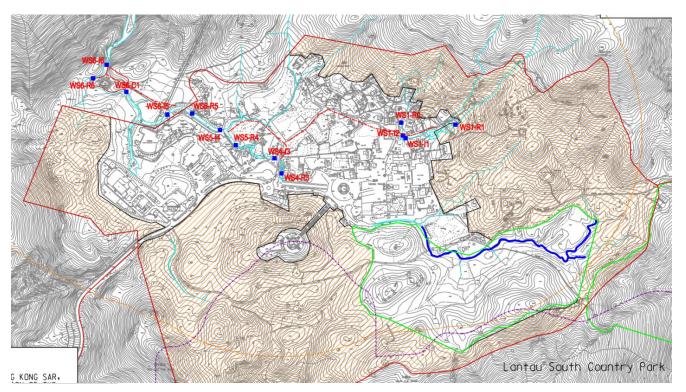


terv Free-field
tery Free-field
Free-field
Façade

\* NSRs: Noise Sensitive Receivers

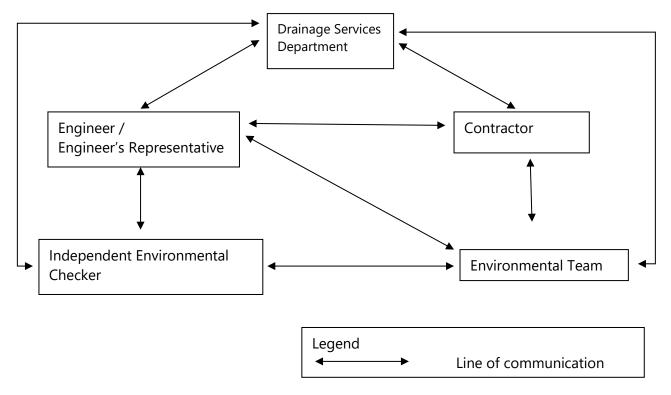
# For Free-field measurement, +3dB(A) should be added to the measured results.

#### Figure 2c Water Quality Monitoring Locations



Station	Туре
WS1-R1	Upstream reference
WS1-I1	Downstream impact
WS1-R2	Upstream reference
WS1-I2	Downstream impact
WS4-R3	Upstream reference
WS4-13	Downstream impact
WS5-R4	Upstream reference
WS5-I4	Downstream impact
WS6-R5	Upstream reference
WS6-15	Downstream impact
WS6-C1	Intermediate Control
WS6-R6	Upstream reference
WS6-I6	Downstream impact





Note: Detailed key personnel contact names and telephone numbers refer to Table 1.1.

Drainage Improvement Works at Ngong Ping Monthly EM&A Report

#### **Appendix B1 Construction Programme**

識別碼 Task	Name	工期	開始時間	完成時間	前置任務	後續任務	i	後半年		前半年		後半年		前半年		後半年		前半年		後半年		前半年	
							第二季	第三季	第四季	第一季	第二季	第三季	笔 第四季	第一季	第二季	第三季	第四季	第一季	第二季	第三季	第四季	第一季	第二季
1 DC/	2019/06 Revised Programme of 13 Apr 2021 (Submitted DSD)	1038 days	13/8/2020	11/2/2024				-															
2 0	ONTRACT KEY DATES	1038 days	13/8/2020	11/2/2024				( )															
	Clause X5 Sectional Completion Date Data	1038 days	13/8/2020	11/2/2024				()====		1.													
4	DC/2019/06 Starting Date	0 days	13/8/2020	13/8/2020				4) 13/	В														
6	Duration of Sectional Works in Calendar Days After Starting Date	1038 days	13/8/2020	11/2/2024				< <u>,</u>									a manager in addaption	and the second second		anders ( aggreened ) here alle	an animanal kontary of the		
7	Works Duration of Section 1 (Portion 3A)	520 days	13/8/2020	18/5/2022						and the second second				The second second	and the second se								
8	Works Duration of Section 2 (Portion 3B & 3C)	672 days	13/8/2020	17/11/2022		597SS+225 days		c		a subscription of the			and the second second	and the second second		and the state of the							
9	Works Duration of Section 3 (Portion 1C, 1D, 1E & 1F)	593 days	13/8/2020	13/8/2022				stur)			and the spectrum of	-		ALL CONTRACTOR OF THE		of the local diversion of							
10	Works Duration of Section 4 (Portion 1A & 1B)	445 days	13/8/2020	12/2/2022				Section	and the second					and the second se									
11	Works Duration of Section 5 (Portion 2A & 2B)	1038 days	13/8/2020	11/2/2024				and the second second	Contraction of the	Contraction of the second	Marrie and a	State of Street or other	and the second second	A REAL PROPERTY AND	The Designation of the local division of the local division of the local division of the local division of the	da and the second states	the second s	and the second second	Construction of the local div	No. of Concession, Name	CARD THE REAL	and the second	
12	Completion Date of Sectional Works	588 days	18/2/2022	11/2/2024				1						C. C									
13	Date of Completion of Works under Section 1 (Portion 3A)	0 days	22/11/2022	22/11/2022	472	19											¢ 2						
14	Date of Completion of Works under Section 2 (Portion 3B & 3C)	0 days	6/2/2023	6/2/2023	509,624	20											. T	6/2					
15	Date of Completion of Works under Section 3 (Portion 1C, 1D, 1E & 1F)	0 days	13/8/2022	13/8/2022	204,274,289	,296 21										♦ 13	/8						
16	Date of Completion of Works under Section 4 (Portion 1A & 1B)	0 days	18/2/2022	18/2/2022	124	22								¢_18	12								
16 17	Date of Completion of Works under Section 5 (Portion 2A & 2B)	0 days	11/2/2024	11/2/2024	306,453	23								Ť			1					• 11/	2
18	Project Completion Date	588 days	19/2/2022	11/2/2024										-								T	



識別碼 Task Name	工期	開始時間	完成時間	前置任務	後續任務		後半年		前半年													
						第二季	第三季	第四季	第一季	第二季	第三季	第四季	第一季	第二季	第三季	第四季	第一季	第二季	第三季	第四季	第一秊	第二季

62	Access date	735 days <i>0 days</i>	13/8/2020 13/8/2020	6/2/2023 13/8/2020		463	tr_13/8
53	Preparation works	50 days	13/8/2020	12/10/2020	462	464	
64	Subletting and design for PM's accommodation (MIC)	50 days	13/10/2020	10/12/2020	463	465	
65	Fabrication of PM's accommodation off site	50 days	11/12/2020	10/2/2021	464	466	
66	Site hoarding/chain link fence and project signboard at works area	15 days	11/2/2021	3/3/2021	465	467	
67	Erection of PM's accommodation (subject to PM's agreement)	50 days	4/3/2021	6/5/2021	466	101	
168	Works Area 3B	110 days	13/8/2020	22/12/2020	100		
69	Access date	0 days	13/8/2020	13/8/2020		470FS+141 days,471	A 13/8
70	Preparation works	42 days	1/2/2021	24/3/2021	469FS+141 day		
71	Site hoarding/chain link fence	49 days	1/2/2021	1/4/2021	469FS+141 day		
72	PORTION 3A - DN1800	676 days	13/8/2020	22/11/2022	4091-3+141 uay	13	
73	Access date	0 days	13/8/2020	13/8/2020			12/0
174	Preparation Works for Portion 3A and 3B	198 days	13/8/2020 13/8/2020	15/8/2020 15/4/2021		475FS+21 days,476F	
15	Subletting and procurement				470720.01.1		
6		82 days	7/9/2020	14/12/2020	473FS+21 days		↓
	Preparation works	12 days	1/2/2021	17/2/2021	473FS+141 day	/s 4//	
17	Application of Lantau closed road permits	22 days	18/2/2021	15/3/2021	476		
78	Initial survey	13 days	1/2/2021	18/2/2021	473FS+141 day	vs 479	
79	Tree survey	20 days	19/2/2021	13/3/2021	478		
80	Underground utitlies detection	39 days	1/2/2021	20/3/2021	473FS+141 day		
81	Liaison with representatives of Ngong Ping Village, Po Lin Monastery & NP 360	45 days	18/2/2021	15/4/2021	473FS+153 day	'S	
82	Establishment of ET and IEC & baseline monitoring	116 days	13/8/2020	31/12/2020	473		
83	DN1800 by TBM (approx. 200m)	676 days	13/8/2020	22/11/2022			
84	Establishing method statement and obtaining approval	60 days	16/6/2021	25/8/2021	491	494,496	
85	Obtain approval of CEDD & AFCD for Transplantation of cherry trees	191 days	13/8/2020	7/4/2021		486FS+3 days	
86	Transplant cherry trees at L305	24 days	12/4/2021	10/5/2021	485FS+3 days	487	
87	installation of settlement monitoring points and baseline monitoring works	14 days	11/5/2021	27/5/2021	486	488	
88	Trial pit excavation	5 days	28/5/2021	2/6/2021	487	489,491	
89	Construction of launching pit at L305	.30 days	21/6/2021	26/7/2021	488	495,490	
90	Construction of receiving pit at L305A	30 days	27/7/2021	30/8/2021	489	493	
91	Received CE No. 007 regarding revised design of proposed DN1800 drainage betwee L305 & Intake No. 3		15/6/2021	15/6/2021	488	492,484	
92	Tendering & Re-tendering of revised design between L305 & Intake No.3 [CE No. 0	007] 60 days	16/6/2021	25/8/2021	491	493	
93	Setting up for hand digging at MHL305A	.30 days	31/8/2021	6/10/2021	490,492	494	
93	Treenhless by using hand digging between L305A to Outfall No.2 (40m approx,	200 days	7/10/2021	13/6/2022	490,492	494 502	
	0.2m/day)						
5	Setting up for hand digging at MHL305	.30 days	27/7/2021	30/8/2021	489	496	
96	Treenhless by using hand digging between L305 to Intake No.3 (40m approx, 0.2m/day)	220 days	31/8/2021	31/5/2022	495,484	503,497	
)7	Setting up of TBM at Launching Pit at MHL305	21 days	1/6/2022	25/6/2022	496	498	
98	TBM pipe jacking between L305 to L305A (120m approx, 2m/day)	60 days	27/6/2022	5/9/2022	497	499	
99	Extraction of TBM from L305A	7 days	6/9/2022	14/9/2022	498	500FS+7 days,501FS	
00	Construction of MH L305	30 days	23/9/2022	29/10/2022	499FS+7 days	504	
)1	Construction of MH L305A	30 days	23/9/2022	29/10/2022	499FS+7 days	504	
02	Construction of Outfall No. 2	60 days	14/6/2022	23/8/2022	4991-3+7 days	504	
03	Construction of Intake No.3	60 days	1/6/2022	11/8/2022	494	504	
04	Reinstatement works	10 days	31/10/2022	10/11/2022	502,503,500,50		
04	Final site clearance	10 days					
06	Planned completion date of Section 1 (Portion 3A)		11/11/2022	22/11/2022	504	506,507	Tours
06		0 days	22/11/2022	22/11/2022	505		22/1
10/	Sectional Completion of Section 1 (Portion 3A)	0 days	22/11/2022	22/11/2022	505		* 22/11
508		735 days	13/8/2020	6/2/2023		14	
508 509 510	PORTION 3B - DN1500 & Box Culvert team C Access date	0 days	13/8/2020	13/8/2020			• 13/8

IDD         Obst Holes and Decision For activity         Other Holes and Decisio	識別碼 Tasl	k Name	工期	開始時間	完成時間	前置任務	後續任務	後半年         前半年         後半年         前半年         後半年         前半年           第二季         第三季         第二季         第二季
	511							
	512				5/11/2020			
90       Maxmanu diarget 1-4								
Bits         Bits <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>±</td></th<>								±
99         000000000000000000000000000000000000	518							
30       Subart Hild 10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	519							
Set the state	520		7 days					ž.
Structure 1180 mm R         1/2         52.85.25.25           Deckmany Reserve 116 mm R         1/2         52.85.25.25           Deckmany R         1/2         52.85.25           Deckmany R         1/2         52.85.25           Deckmany R         1/2         52.85.25           Deckmany R         1/2         52.85           Deckman	521							
State         Market P100 4129         Holes         Model         Fill Color         State         State<								
S         Deschoorman Withows								
Bits         The start of Plad U         The star of Plad U         The								
9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2     5/2       9     Mature 4780 d. 2     Habe     10/202     210/202     5/2       9     Mat	526							
30       Induke menuterik MU Mu Selmé MU BU Janual, Joban       Hohe       HOUSEND (1997)       Signal       Signal       Hohe       HOUSEND (1997)       Signal       Signal       Hohe       HouseND (1997)       <	527							
0       Consistent of call bit is in the call bit	528	Trenchless construction by TBM (approx. 80m from L301 to Intake no.1, 2m/day)	40 days					
Structured is alwayer ADA       Single	529				26/3/2022			
00     Constant of trable 1.04     98 abs     2010/200     41/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     10/202     50     57       00     Constant of trable 1.04     98 abs     2010/200     50     57       00     Constant of trable 1.04     98 abs     2010/200     50     57       00     Constant of trable 1.04     98 abs     2010/200     50     57       00     Constant of trable 1.04     98 abs     2010/200     50     57       00     Constant of trable 1.04     98 abs     2010/200     50     57       00     Constan	530				16/7/2021			
01       Ourscheid Labels - DP       Balas       60/201       60/201       50       57       -         02       Ourscheid Labels - DP       Balas       60/201       60/201       50       57       -         02       Ourscheid Labels - DP       Balas       60/201       50/201								
Not mutuation matched bills       0 bills								
65       Oursened functional 2010       0 fields       52002       5	535							
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	535							
	536							
No.         Partial functionary         Part	537		10 days	24/8/2022		532,533,534		1
81       Sing of chromend in generation results       0.5.0       10.2000       911/2000       41.3         91       Sing of chromend in generation results       0.6.0       10.2000       911/2000       41.3         91       Sing of chromend in generation results       0.6.0       10.2000       911/2	538			5/9/2022	16/9/2022			<u>د</u>
94)       Buildings of substantial browners of the substant multice water and provide the substantial browners of the substantial	539						<b>5</b> 40	
92       multian of editarian monenge was all having monenge was all havin								
State       Note of Light seconds       Note of Light seconds       Seconds <td></td> <td></td> <td></td> <td></td> <td></td> <td>541</td> <td></td> <td><u></u></td>						541		<u></u>
General Section 4       Difference 1								
95       Buowsent Bills with relation of south of south relation for the late of the late late of the late late of the late of the lat	544					540,542	331	
94       Male gold for division of the side       15 days       8000220       1000200	545	Excavation and Erection of ELS				556	546	
Set Backbards of Conductions of Con	546			28/9/2022				$\hat{\mathbf{T}} = \hat{\mathbf{T}}_{\mathbf{T}}$
BaldBing air featurement work       15 Sup       21/2022       91/2022       94.8       622         BaldBing air featurement work       15 Sup       19/2022       92.9       92.9       92.9         BaldBing air featurement work       15 Sup       19/2022       92.9<								line in the second s
Sign Dillion CLRS       Washington Dillion CLRS       Sign Dillion CLRS								
51       Exavation ad Bitching 4E8       44-46       1960022       4420022       612       55.61         53       Centroling 410-1000116       154-46						548	622	
52       Male code in maturisma all control wilk is up allowed in maturisma in the stable       15 ap       \$80,0022       225,022       551         53       Control wilk is wilk is up allowed in with in the stable       15 ap       300,0022       227,0212       553         54       Control wilk is wilk is up allowed in with in the stable       15 ap       300,0022       227,0212       553       622         55       Control wilk is wilk in the stable       15 ap       300,0022       255,002       554       622         56       Control wilk is wilk in the stable       15 ap       300,0022       255,002       554       622         56       Control wilk is wilk in the stable       15 ap       300,0022       255,002       555,5       622         56       Control wilk is wilk in the stable       15 ap       100,002       256,002       563       622         56       Control wilk in the stable       15 ap       100,002       256,002       563       622       622       622       624       624       624       624       624       624       624       624       624       624       624       625       625       625       625       625       625       625       625       625       625       625 <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>610</td> <td>550 617</td> <td></td>			-			610	550 617	
55       Constrained with any halk       15 Sup       238/2022       896/2022       55 Si	552							
S4       Bd/filling all enclamenter wirks       15 daws       99/2022       279/2002       553       622         G113       Call Section of B.3       45 daws       150/202       400/202       550       523         56       Excalment all free on the B.3       45 daws       150/202       400/202       555       523         56       Excalment all free on the B.3       15 daws       99/2022       279/2022       556       523         56       Excalment all free on the B.3       15 daws       99/2022       279/2022       556       523         56       CBB-Coll Section of B.3       15 daws       99/2022       279/2022       556       524         56       CBB-Coll Section of B.3       15 daws       99/2022       279/2022       556       524         56       CBB-Coll Section of B.3       15 daws       199/2022       11/20202       556       566       566         56       CBB-Coll Section of B.3       15 daws       19/20202       11/20202       577.575       576       577.575       577.577       576.56       568       568       568       568       568       568       568       568       568       568       568       568       568       568	553							
55       Bacadam all Dictations of BLS       45 days       1306/2022       661       573, 545       1         56       Bacadam all Dictations of BLS       45 days       1306/2022       2570, 255       558       558         56       Constructions of BLS       46 days       15 days       22/R2022       555       558       559         56       Constructions of BLS       46 days       15 days       22/R2022       556       558       559         56       Constructions of BLS       45 days       116/R2022       1576/202       566       562       563         56       Constructions of BLS       45 days       116/R2022       1566       562       563       563         56       Constructions of BLS       45 days       116/R2022       566       563       563       563         56       Constructions of BLS       45 days       19/R2022       577, 571       577, 571       577, 571       577, 571       578       578       578       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       577, 571       578       578       578       578       578       578       577	554	Backfilling and reinstatement works	15 days					
S7       Male good for isolation and contraction of hose lab       15 Jays       56/2022       25/20202       55/8       58/9         S7       Contrastance of walk type lab       15 Jays       56/2022       25/7       55/9          S9       Childing and construction of hose lab       15 Jays       99/2022       25/7       55/9          S9       Childing and construction of hose lab       15 Jays       99/2022       25/7       55/2          S9       Childing and construction of hose lab       15 Jays       99/2022       55/6       56/2            S9       Childing and construction of hose lab       15 Jays       99/2022       55/6       56/2 <td>555</td> <td></td> <td></td> <td>13/6/2022</td> <td>27/9/2022</td> <td></td> <td></td> <td></td>	555			13/6/2022	27/9/2022			
65%       Commune of val & sp tab       15 day       250/2022       55/9       559         65%       Commune of val & sp tab       15 day       90/2022       758       622         66       Contraction of Direction of Bas       15 day       90/2022       758       623         67       Base on the first of Bas       15 day       90/2022       558       623         68       Contraction of Direction of Bas       15 day       15 day       90/2022       558       623         60       Contraction of Direction of Bas       15 day       15 day       563       563         61       Contraction of Direction of Bas       15 day       10 90/2022       561       563         66       Contraction of Direction of Bas       15 day       10 90/2022       567       569         66       Contraction of Direction of Bas       15 day       10 90/2022       570/202       570/202       570/202         76       Base on the instance on all exercition on the exide       15 day       255/2022       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202       570/202								
999       Beddilling and rematements webs       15 days       99/0022       279/0222       558       622         610       CH0-CH17       99 days       14/40202       4/00202       506       522.556         62       Mile order instances of the slab       15 days       15/days       16/0202       556.556         63       Chormation of valle its plab       15 days       15/days       16/0202       556.556         64       Chormation of valle its plab       15 days       15/days       16/0202       556.566         65       Chormation of valle its plab       15 days       18/02022       576.561       568         65       Backilling and remisteners webs       15 days       18/02022       576.561       568         66       Chormation of lac slab       15 days       18/02022       576.561       568         67       Male order instance of valle its plab       15 days       18/0202       576.561       568         68       Chormation of lac slab       15 days       19/0202       570.202       576.561       572.566         71       Backeron for instance of valle its plab       15 days       20/0202       570.202       572.566       572.566         72       Male order instance of va								
690       CH16 - CH17       90 dyn       14/4/2022       45/2022       1000         691       Make goad for foundation and constitution of BLS       45 dayn       11/4/2022       25/60       561.3         692       Make goad for foundation and constitution of BLS       15 dayn       31/6/2022       25/61       563.3         693       Constrained Fund Res table       15 dayn       31/6/2022       25/7/202       562.3       563         695       Constrained Fund Res table       15 dayn       31/6/2022       25/7/202       563       -         696       Backfilling and rematisement works       15 dayn       91/0/2022       15/6/202       56/7       569         696       Backfilling and rematisement works       15 dayn       91/0/2022       25/7/7       567       569         106       Backfilling and rematisement works       15 dayn       91/0/2022       55/7       570       572       560         116       Backgood for foundation and constitution of back shith       16 dayn       92/02/202       571       571       571       571       571       571       571       571       571       571       573       622       574       573       622       571       573       622       573								
66 67 68 68 68 68 68 68 68 68 68 68 68 68 68						338	622	
Sel_       Multic scole inclusation and construction of the stable       15 days       136/2022       561       563         Sel_       Construction of wild a low plable       15 days       90/6022       563       15 days       15 days       15 days       15 days       16/2022       563       15 days       15 days       15 days       16/2022       563       15 days       16/2022       563       15 days       15 days       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       563       16/2022       565       16/2022       565       565       16/2022       561       565	561					566	562 556	
66.       Contractice of vall & top alsh       15 days       300/07022       187/2022       56.4         67.       Retaining and resistancement werks       15 days       197/2022       56.3       -         68.       CHI-6-CHI 0       90 days       197/2022       56.6       -         68.       CHI-6-CHI 0       15 days       197/2022       56.6       -         69.       CHI-6-CHI 0       15 days       197/2022       56.6       56.6         61.       Chick-CHI 0       15 days       197/2022       57.6       56.0         62.       Statuling and resistancement works       15 days       245/2022       57.6       56.0         63.       Chick-CHI 0       15 days       255/2022       57.6       56.0       57.2         64.       15 days       255/2022       116/2022       57.6       57.2       56.0         71.       Excavatora all Detection of ELS       45 days       221/20201       182/2022       57.3       57.2         73.       Account and Detection of ELS       45 days       201/20202       57.7       57.0       57.6         75.       Disk poot he topachion and construction of bas slab       15 days       201/20202       57.7       57.0 <td>562</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	562							
66       Backtilling and remetatement works       15 days       19/17/2022       48/02/22       56/3         66       CHC-CH16       90 days       19/02/202       11/60/02/2       57/7       56/7         66       Excavation and Election of ELS       45 days       10/12/202       11/60/02/2       57/7       56/9         67       Make good the consubiened works       15 days       65/7/2022       25/7       56/9         68       Construction of Vall A top skin       15 days       65/7/2022       25/7       56/9         68       Construction of Vall A top skin       15 days       25/7/2022       57/8       62/2         70       DE construction of ULS       45 days       20/12/2021       57/1       57/2       56/6         71       Make good the iconsubiened works       15 days       20/12/2021       57/2       57/3       57/3         73       Centraction of ULS       45 days       20/12/2021       57/3       57/3       57/3         74       Backfilling and trematement works       15 days       20/12/2021       57/3       57/3       57/3         75       GR10-CH18       90 days       20/12/2021       57/3       57/3       57/3       57/3       57/3       57	563	Construction of wall & top slab						
66 0       Excaution and Erection of ELS       45 days       19/02/02       571       567,561         66 0       Contraction of walk to pails       15 days       15/02/02       570       569         66 0       Contraction of walk to pails       15 days       65/02/02       566       568         68 0       Contraction of walk to pails       15 days       65/02/02       567       569         70       CH13- CH14       90 days       22/12/02/01       18/02/02       571       572         70       CH13- CH14       90 days       22/12/02/02       571       573       574         71       Make good the foundation and construction of base slab       15 days       91/02/02       573       572         73       Contraction of M14       to sals       91/02/02       573       573       574         74       Exavation and Erction of ELS       45 days       20/10/02/1       21/12/02/2       573       622         75       CH10- CH115       90 days       20/10/02/1       21/12/02/2       578       622         75       CH10- CH115       90 days       20/10/02/2       775       578       622         76       Exavation and Erction of ELS       45 days	564			19/7/2022	4/8/2022			
67       Make good the foundation and construction of base slab       15 days       14/4/2022       55/5/2022       56/6       56/8         68       Centrations of wall k top slab       15 days       25/5/2022       14/6/2022       56/7       569         69       Reskfilling and reinstatement works       15 days       25/5/2022       11/4/2022       56/7       569         70       CH30 - CH43       9       90/7       22/12/2021       11/4/2022       57/6       572,566         71       Excavation and Election of ELS       45 days       22/12/2021       11/4/2022       57/2       57/4         71       Make good the roundation and construction of base slab       15 days       9/12/2022       57/3       622         76       CH10 - CH13       90 days       25/12/2021       57/1       57/3       622         76       CH10 - CH15       90 days       30/10/2021       87/10/202       57/3       622         76       CH10 - CH15       90 days       45/2022       57/7       57/8       622         77       Make good the foundation and construction of base slab       15 days       20/12/2021       57/8       52/7/6         78       Centraction of WLA top slab       15 days       30/10/2021 <td>565</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1000 (Sec.)</td> <td></td>	565						1000 (Sec.)	
666       Construction of wall & top slab       15 days       647,0202       2567       569         676       CH30 - CH45       90 days       221/2021       11/6/2022       566       622         717       Excavation and Exection of ELS       45 days       221/2021       11/6/2022       576       579         72       Make good the foundation and construction of wall & top slab       15 days       221/2021       11/6/2022       571       573         737       Construction of wall & top slab       15 days       201/2021       11/6/2022       571       573         740       Backfilling and restatutemt works       15 days       201/2021       11/6/2022       573       522         756       CH15 - CH19       90 days       201/2021       11/6/2022       576       578         757       Construction of wall & top slab       15 days       201/2021       101/2022       576       578         757       Construction of wall & top slab       15 days       201/2021       101/2022       576       578         757       Chilo - CH13       90 days       201/2021       101/2022       576       578         757       Construction of wall & top slab       15 days       201/2021       100/2021<								
569       Bak/filling and remainterent works       15 days       256/50/22       578       622         70       CH30-CH145       90 days       201/20201       18/02/022       576       572,566         71       Decavation and Excition of ELS       45 days       201/20201       18/02/022       577       571         72       Construction of voll & kip slab       15 days       19/02/022       573       622         73       Construction of voll & kip slab       15 days       201/20201       18/02/022       573       622         74       Centernation and Centrotion of base slab       15 days       201/20201       18/02/022       573       622         757       Centernation of voll & kip slab       15 days       201/20201       18/02/022       577       571         767       CH10-CH13       Stays       10/10/022       576       578       622 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $								
F1       Exavation and Election of ELS       45 days       20/12/2021       18/2/2022       57.6       572,56.6         72       Make good the foundation and construction of base slab       15 days       19/2022       57.72       57.4         73       Construction of wall & top slab       15 days       9/3/2022       57.72       57.4         74       Baskfilling and reinstatement works       15 days       20/12/2021       57.1       57.2         74       Baskfilling and reinstatement works       15 days       20/12/2021       57.7       57.4         75       CHILS - CHIS       90 days       20/10/2021       18/2/2022       57.7       57.4         76       Exavarian and Election of ELS       45 days       20/10/2021       18/1/2022       57.6       57.8         77       Make good the foundation and construction of base slab       15 days       20/10/2022       18/2/2022       57.8       57.2         78       Construction of Wall & top slab       15 days       20/10/2021       18/1/2022       57.8       52.2       57.5       57.8         78       Construction of Wall & top slab       15 days       20/10/2021       18/1/2022       57.8       52.2       57.8       52.2       57.8       52.2       57	570					500	022	
722       Make good the foundation and construction of base slab       15 days       19/2/2022       8/3/2022       571       573         737       Construction of walk k top slab       15 days       9/3/2022       573       574         747       Backfilling and resistatement works       15 days       9/3/2022       573       622         756       CH15 - CH130       90 days       30/10/2021       18/2/2022       577       574         756       Excavation and Encition of ELS       45 days       30/10/2021       21/12/2021       581       577,771         757       Backfilling and resistatement works       15 days       20/1/2022       277       579         757       Construction of Vall & top slab       15 days       19/1/2022       28/1/2022       577       579         757       Backfilling and resistatement works       15 days       19/1/2022       28/1/2022       578       522         880       Clinitor of Vall & top slab       15 days       19/1/2022       28/1/2022       578       522         881       Construction of Vall & top slab       15 days       10/1/2021       58/1       58/2       58/2       58/4       58/2       58/2       58/2       58/2       58/4       58/2       <	571					576	572,566	
773       Construction of wall & top slab       15 days       99 days       572       574         74       Backfilling and renstatement works       15 days       90 days       301/02/021       131/2/022       573       622         576       CH15 - CH30       90 days       301/02/021       131/2/022       573       622         576       Exavation and Erection of ELX       45 days       301/02/021       131/2/022       576       578         777       Make good the foundation and construction of base slab       15 days       221/2/022       578       622         578       Construction of wall & top slab       15 days       201/02/02       577       579         579       Backfilling and reinstatement works       15 days       291/1/2022       578       622         580       CH10 - CH13       90 days       491/2022       578       622         580       Construction of NLA       45 days       491/2021       581       582.576         581       Exavation and Erection of ELX       45 days       491/2021       582.584         582       Make good the foundation and construction of base slab       15 days       191/1/2021       582.584         582       Construction of wall & top slab	572	Make good the foundation and construction of base slab					573	
S75       CH11-CH130       90 days       30/10/2021       180/2022       100       180/2022       100       180/2022 <td>573</td> <td></td> <td></td> <td></td> <td>25/3/2022</td> <td>572</td> <td>574</td> <td></td>	573				25/3/2022	572	574	
576       Excavation and Errection of ELS       45 days       30/10/2021       21/12/2021       581       5777, 571         777       Make good the foundation and construction of base slab       15 days       22/12/2021       581       5777, 579         578       Construction of wall & top slab       15 days       22/12/2021       11/1/2022       577, 579         579       Backfilling and reinstatement works       15 days       29/1/2022       578       622         580       CH100 - CH115       90 days       49/7/2021       21/1/2/2021       581       583         581       Excavation and Erection of ELS       45 days       49/7/2022       577       579         582       Make good the foundation and construction of base slab       15 days       21/12/2021       581       583         583       Construction of wall & top slab       15 days       30/10/2021       600FS+30 days       582,576         582       Make good the foundation and construction of base slab       15 days       30/10/2021       581       583         583       Construction of wall & top slab       15 days       30/10/2021       582       584       Manual Summary       Point       Point       Point         rocyct: D/2/2019/06 Revised Progral       Task	574					573	622	
777       Make good the foundation and construction of base slab       15 days       22/12/2021       11/1/2022       576       578         578       Construction of wall & top slab       15 days       22/12/2021       11/1/2022       577       579         579       Backfilling and renstatement works       15 days       22/12/2021       577       579         580       CH100-CH115       90 days       49/2021       20/12/2021       600/FS+30 days       582,576         581       Excavation and construction of blac slab       15 days       30/10/2021       600/FS+30 days       582,576         582       Make good the foundation and construction of base slab       15 days       30/10/2021       600/FS+30 days       582,576         582       Make good the foundation and construction of base slab       15 days       3/12/2021       582       584       Inactive Summary       Manual Summary Manual Summary Nolly       Finish-only       2       Critical Split       Progress         respect: DC/2019/06 Revised Program       Task       Summary       Manual Task       Manual Summary       Manual Summary       Progress       Progress       Progress       Progress         split       Progrest Summary       Inactive Killestone       Duration-only       Start-only       Critical						601	677 C21	
578       Construction of wall & top slab       15 days       12/1/2022       28/1/2022       577       579         579       Backfilling and reinstament works       15 days       12/1/2022       578       622         570       CHIO - CHII       90 days       49/2/021       29/1/2022       578       622         580       CHIO - CHII       90 days       49/2/021       29/1/2021       600FS+30 days       58.2,576         581       Excavation and Exection of ELS       4 days       30/10/2021       600FS+30 days       58.2,576         582       Make good the foundation and construction of wall & top slab       15 days       30/10/2021       600FS+30 days       58.2       58.4         rocet: DC/2019/06 Revised Program       Task       Summary       Frish-only       Finish-only       Finish-only       Critical Split       Progress         split	576							
579       Backfilling and reinstatement works       15 days       29/1/2022       578       622         580       CH100 - CH115       90 days       49/2/002       18/2/2022       578       622         581       Excuration and Erection of ELS       45 days       49/1/2021       20/1/2/2021       583       583         582       Make good the foundation and construction of base slab       15 days       30/10/2021       60/0Fs+30 days       583       583         583       Construction of wall &: top slab       15 days       17/11/2021       581       583       584       Inactive Summary       Manual Summary       Finish-only       Critical Split       Progress         rospect: DC/2019/06 Revised Program       Task       Summary       External Tasks       Manual Task       Manual Task       Manual Summary       Progress       Progress       Progress								
S80       CHIO-CHIIS       90 days       49/2021       21/12/2021       582       S83       Centro of Elis       45 days       49/2021       21/12/2021       600FS+30 days       582,576       Image: S83       S83       Image: S83       <	579							
S81       Excavation and Erection of ELS       45 days       49/1021       29/10/2021       600FS+30 days       582,576         Make good the foundation and construction of base slab       15 days       30/10/2021       16/11/2021       581       583         Construction of wall & tep slab       15 days       30/10/2021       16/11/2021       581       583       583       583       Construction of wall & tep slab       Critical Split       Critical Split       Project Summary       Project Summary <t< td=""><td>580</td><td></td><td></td><td></td><td></td><td>510</td><td>022</td><td></td></t<>	580					510	022	
S82       Make good the foundation and construction of base slab       15 days       30/10/2021       16/11/2021       581       583         Construction of wall & top slab       Task       Summary       External Milestone       Inactive Summary       Manual Summary       Finish-only       J       Critical Split       Progress         cate: 28/7/2021       Task       Summary       External Milestone       Manual Task       Manual Summary       Deadline       Progress       Progress	581					600FS+30 d	lays 582,576	
S88       Construction of wall & top slab       15 days       17/11/2021       3/12/2021       582       584       Manual Summary       Manual Summary Rolly       Finish-only       Image: Summary Rolly       Finish-	582		15 days	30/10/2021		581	583	
Split       Project Summary       Project Summary       Inactive Task       Manual Task       Manual Summary       Deadline       Progress         Milestone       External Tasks       Inactive Milestone       Duration-only       Start-only       Critical       Progress	583	Construction of wall & top slab	15 days	17/11/2021		582	584	
Split       Project Summary       Project Summary       Inactive Task       Manual Task       Manual Summary       Deadline       Progress         Milestone       External Tasks       Inactive Milestone       Duration-only       Start-only       Critical       Progress		Tach			East 1	Milastan	A	Le din Sumer Diller Bick ada Colica 18 5
At: 28/7/2021 Split Project Summary Linactive Task Manual Task Manual Task Datation-only Start-only C Critical Projects	Project: DC/	/2019/06 Revised Progra						
	Date: 28/7/2	021						
Page 7		Milestone 🗣 Exte	ernar rasks	100 2000 000000000000000000000000000000	Inactive	willestone	- 14 C	Duration-only Start-only L Critical
								Page 7

制碼 Task	Name	工期	開始時間	完成時間	前置任務	後續任務	後半年         前半年         後半年         前半年         後半年         前半年           第二季         第二季
584	Backfilling and reinstatement works	15 days	4/12/2021	21/12/2021	583	622	第二季 第三季 第四季 第一季 第二季 第三季 第四季 第一季 第二季 第三季 第四季 第一季 第二季 第三季 第四季 第一季 第
585	CH85 - CH100	90 days	30/10/2021	18/2/2022			
586	Excavation and Erection of ELS	45 days	30/10/2021	21/12/2021	592	587,602	
587	Make good the foundation and construction of base slab	15 days	22/12/2021	11/1/2022	586	588	
588	Construction of wall & top slab	15 days	12/1/2022	28/1/2022	587	589	
589	Backfilling and reinstatement works	15 days	29/1/2022	18/2/2022	588	622	
590	CH70 - CH85	120 days	31/7/2021	21/12/2021			
591	Tree felling & Noise Barrier Erection	30 days	31/7/2021	3/9/2021	600	592	
592	Excavation and Erection of ELS	45 days	4/9/2021	29/10/2021	591	593,586	
593	Make good the foundation and construction of base slab	15 days	30/10/2021	16/11/2021	592	594	
94	Construction of wall & top slab	15 days	17/11/2021	3/12/2021	593	595	
95	Backfilling and reinstatement works	15 days	4/12/2021	21/12/2021	594	622	
96	CH60 - CH70	60 days	20/5/2021	30/7/2021	.174	022	
07	Excavation and Erection of ELS	30 days	20/5/2021	24/6/2021	8SS+225 days	54508	
8	Make good the foundation and construction of base slab	10 days	25/6/2021	7/7/2021	597	599	
9	Construction of wall & top slab	10 days	8/7/2021	19/7/2021	598	600	
00	Backfilling and reinstatement works	10 days	20/7/2021	30/7/2021	599	581FS+30 days.622	
01	CH45 - CH60	90 days	20/7/2021	13/4/2022	599	001F0+00 days,022	
02	Excavation and Erection of ELS	45 days	22/12/2021	18/2/2022	586	603,607	¥
)3	Make good the foundation and construction of base slab	15 days	19/2/2022	8/3/2022	580 602	603,607	2
14	Construction of wall & top slab	15 days	9/3/2022				
)5	Backfilling and reinstatement works	15 days		25/3/2022	603	605	
)6	CH30 - CH45	90 days	26/3/2022	13/4/2022	604		
)7	Excavation and Erection of ELS	45 days	19/2/2022	11/6/2022			
)8	Make good the foundation and construction of base slab	45 days 15 days	19/2/2022	13/4/2022	602	608,612	
09	Construction of wall & top slab		14/4/2022	5/5/2022	607	609	P
10	Backfilling and reinstatement works	15 days	6/5/2022	24/5/2022	608	610	· · · · · · · · · · · · · · · · · · ·
10	CH15 - CH30	15 days	25/5/2022	11/6/2022	609	622	
12	Excavation and Erection of ELS	90 days	14/4/2022	4/8/2022			
12	Excavation and Erection of ELS Make good the foundation and construction of base slab	45 days	14/4/2022	11/6/2022	607	613,551	
4		15 days	13/6/2022	29/6/2022	612	614	■ (
	Construction of wall & top slab Backfilling and reinstatement works	15 days	30/6/2022	18/7/2022	613	615	
5	CH0 - CH15	15 days	19/7/2022	4/8/2022	614	622	
	Excavation and Erection of ELS	130 days	5/8/2022	10/1/2023			
17		45 days	5/8/2022	27/9/2022	551	618	
	Make good the foundation and construction of base slab	15 days	28/9/2022	17/10/2022	617	619	<b>▲</b>
19	Construction of wall & top slab	15 days	18/10/2022	3/11/2022	618	620	
20	Construction of Intake No.2	40 days	4/11/2022	20/12/2022	619	621	
21	Backfilling and reinstatement works Final reinstatement works	15 days	21/12/2022	10/1/2023	620	622	
2		10 days	11/1/2023	21/1/2023		59, 623, 631, 632	The second se
23	Final site clearance	10 days	26/1/2023	6/2/2023	622		
	RTION 3C	672 days	13/8/2020	17/11/2022		14	
	Access date	0 days	13/8/2020	13/8/2020			◆ 13/8
	Subletting and procurement	.36 days	18/11/2021	31/12/2021	629		
	Preparation Works	55 days	30/6/2021	2/9/2021		628	
	Coordination with DSD sewage treatment plant	11 days	3/9/2021	15/9/2021	627	629	
	Planting of trees for compensation (subject to PM's instruction)	51 days	16/9/2021	17/11/2021	628	630,626	
	Establishment works for planted trees	296 days	18/11/2021	17/11/2022	629	631,632	
	ed completion date of Section 1 (Portion 3B & 3C)	0 days	21/1/2023	21/1/2023	622.630,538		● 21/1
32 Section	nal Completion of Section 1 (Portion 3B & 3C)	0 days	21/1/2023	21/1/2023	622,630,538		* 21/1

DODDOOR D ID	Task		Summary	<b>~</b>	External Milestone	\$ Inactive Summary	00	Manual Summary Ro	llup	Finish-only	3	Critical Split	
ect: DC/2019/06 Revised Progra e: 28/7/2021	Split		Project Summary	$\nabla$	Inactive Task	Manual Task	5	Manual Summary	ÇQ	Deadline	₽	Progress	C
	Milestone	•	External Tasks		Inactive Milestone	Duration-only		Start-only	E	Critical			

#### **Appendix B2 Works Undertaken Illustrations**



#### **Appendix B3 Proactive Environmental Protection or Control Measures for Next Three Month**

Activity Impact	Excavation of Trench or Pit	Pipe Lining	Installation of Drainage Pipe	-	твм	Control Measures
Air Pollution Nuisance	1	1	1	1	1	<ul> <li>Use of regular watering to reduce dust emissions</li> <li>Open stockpiles shall be avoided or covered.</li> </ul>
Noise Nuisance	•	1				<ul> <li>Use of quieter plant (QPME)</li> <li>Use suitable acoustic enclosure.</li> <li>Installation of a fixed noise barrier.</li> </ul>
Water Nuisance		1		1	1	<ul> <li>Intercept the surface runoff by sand bag or etc.</li> <li>Treat the wastewater before discharge.</li> </ul>
Waste Nuisance		1	1		•	<ul> <li>The site and surroundings shall be kept tidy and litter free.</li> <li>General refuse arising on-site should be stored in enclosed bins separately from C&amp;D and chemical wastes</li> <li>Recycle as many C&amp;D materials as possible on-site</li> </ul>
Ecology	1	1		1		<ul> <li>avoid damage and disturbance to the remaining and surrounding natural habitat</li> <li>construction activities should be restricted to the proposed works boundary</li> </ul>

Moreover, the ET will continue to implement the environmental monitoring & audit programme in accordance with the EM&A Manual and Environmental Permit requirements. The recommended environmental mitigation measures shall be implemented on site and regular inspections as required will be carried out to ensure that the environmental conditions are acceptable.

#### **Appendix B4 Waste Flow Table**

Name of Department: DSD

Contract No.: DC/2019/06

#### Monthly Summary Waste Flow Table for 2023

Contract Title: Drainage Improvement Works in Northern Territories (remaining works), Southern Hong Kong Island & Ngong Ping Location: L3 - Ngong Ping

		Quantities of	Inert C&D N	laterials Gen	erated		Quant	tities of Non-	inert C&D M	aterials Gene	erated
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastic (see Note 3)	Chemical Waste	Other, e.g. General Refuse
	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)
January	84.83	0.00	0.00	0.00	74.60	0.00	0.00	0.00	0.00	0.00	10.23
February	254.73	0.00	0.00	0.00	247.49	0.00	0.00	0.00	0.00	0.00	7.24
March											
April											
May											
June											
Sub-total	339.56	0.00	0.00	0.00	322.09	0.00	0.00	0.00	0.00	0.00	17.47
July											
August											
September											
October											
November											
December											
Yearly Total	339.56	0.00	0.00	0.00	322.09	0.00	0.00	0.00	0.00	0.00	17.47

Monthly Forecast of Total Quantities of C&D Materials to be Generated from the Contract (for March 2023)										
Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastic (see Note 3)	Chemical Waste	Other, e.g. General Refuse
(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)	(0.00tonne)
300.00	0.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	10.00

Notes: (1) The performance targets are given in PS Clause 1.104(14).

(2) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material

#### Appendix C1 EP-456/2013/B Conditions

EP Conditions	Submission(s)	Submission Date	Approval Status
			Approved
2.6	Landscape Plan (Rev. G)	02/03/2021	on
			23/03/2021
		At least one month	
2.7	Landscape as-built drawing(s)	before the Project	*
		commences operation	
	Updated Baseline Vegetation Survey Report (Rev. E)	19/02/2021	*
2.8	Floral Protection Plan (Rev. J)	04/04/2021	*
	Floral Transplantation Plan (Rev. E)	11/12/2020	*
2.10	Aquatic Fauna Translocation Plan (Rev. H)	24/12/2020	*
2.11	Aquatic Fauna Translocation Survey Report (Rev. B)	02/03/2021	*
	Noise Baseline Monitoring Report (Rev. A)	30/10/2020	*
4.3	Water Quality Baseline Monitoring Report (Rev. D)	29/01/2021	*
4.4	Monthly EM&A Report (January 2023)	13/02/2023	*
Remarks <sup>.</sup> * A	nproval not required in FP-456/2013/B		

#### Summary Table for Status of Compliance / Required Submission

Remarks: \* Approval not required in EP-456/2013/B

# **Appendix C2 Mitigation Measures Implementation (Construction Phase)**

Environmental Protection Measures (Construction Phase) <sup>(1)</sup>	Status
A) Air Quality	
Watering once per hour for 12 hours a day at <b>exposed soil in all active works areas and paved haul roads</b> to reduce dust emissions by 91.7%. The amount of water to be applied would be 0.25L/m <sup>2</sup> for the respective watering frequency.	^
Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:	
<ul> <li>Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather;</li> </ul>	^
<ul> <li>Use of frequent watering for particularly dusty construction areas and areas close to ASRs;</li> </ul>	^
<ul> <li>Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable</li> </ul>	
owing to frequent usage, watering shall be applied to aggregate fines;	^
Open stockpiles shall be avoided or covered. Prevent placing dusty material storage piles near ASRs;	^
Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations;	^
Establishment and use of vehicle wheel and body washing facilities at the exit points of the site;	^
Imposition of speed controls for vehicles on unpaved site roads, 8 km per hour is the recommended limit;	^
Routing of vehicles and position of construction plant should be at the maximum possible distance from ASRs;	^
Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;	^
Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; and	N/A
■ Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	N/A
B) Noise	
The use of quieter plant (QPME) is specified for the list of equipment:	
■ Tracked excavator fitted with hydraulic rock breaker; ■ Concrete lorry mixer; ■ Tracked mobile crane (132kW, 55t);	
■ Dump Truck; ■ Tracked excavator (14t); ■ Generator, Super Silenced, 70 dB(A) at 7m; ■ Poker vibratory;	^
■ Hand Held Electric Circular Saw, 150mm Blade with SWL of 103dB(A) or less;	
■ Electric Chain-Saw, Hand-held; and ■ Water Pump, Submersible (Electric).	
For the Columbarium (NSR1), the vertical gaps along of edge of the solid boundary wall facing the works area WA4 should be covered with acoustic fabric or small barrier for noise screening.	^
The use of temporary noise barrier / enclosure are specified for the list of equipment:	
■ Bar Bender and Cutter (Electric) - Noise Enclosure	
<ul> <li>Dar bender and cutter (Electric) "Noise Enclosure"</li> <li>Tracked excavator fitted with hydraulic rock breaker - Temporary Noise barrier;</li> </ul>	
<ul> <li>Tracked excavator (14t) - Temporary Noise barrier</li> </ul>	^
■ Generator, Super Silenced, 70 dB(A) at 7m - Noise Enclosure; and	
Hand Held Electric Circular Saw, 150mm Blade - Noise Enclosure.	
	N/A
Installation of a fixed noise barrier of 3m in height between the NSR5 and the open cut trench (Activities 4 and 4+ at Works	(Works is ended in that
	section)
Implementation of further good site practices:	,
Only well-maintained plant should be operated on- site and PME should be serviced regularly during the construction	^
<ul> <li>Forgramme;</li> <li>Silencers or mufflers on construction equipment should be utilised and properly maintained throughout the construction</li> </ul>	^
programme;  Any mobile BME should be sited as far from NSPs as possible:	^
<ul> <li>Any mobile PME should be sited as far from NSRs as possible;</li> <li>Machines and PME that may be in intermittent use should be shut down between work periods or should be throttled down to</li> </ul>	
a minimum;	^
PME known to emit noise strongly in one direction should be orientated to direct away from the nearby NSRs;	^
■ Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities;	^
Use of acoustic enclosure, in accordance with EPD's A Practical Guide for the Reduction of Noise from Construction Works; and	^
Re-scheduling of works should be considered to ameliorate the residual impact.	^
C) Water Quality	
In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures shall include the following:	^
At the establishment of Site Office (SO), works area (WA1 and WA2) and stockpiling areas (SA1, SA2, SA3 and SA4; (see Figures 2.9a-2.9g), perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided to divert the stormwater to silt removal facilities. The <b>design of the temporary</b>	۸

on-site drainage system will be undertaken by the Contractor prior to the commencement of construction;

	Statu
Dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary	
itches should be provided to facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap.	^
ediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates;	
While ProPECC PN 1/94 requires construction works should be programmed to minimise surface excavation works during <b>rainy</b>	
easons (April to September). By the nature of the pipe laying works, it is considered not practicable to avoid excavation works in	
he wet season as this would substantially affect the overall construction programme. However, for works at areas that directly	
Interface with the existing watercourses, excavation works shall avoid the rainy season as far as possible. These include <b>Intake A</b>	
nterfacing the stream, <b>Intake B</b> interfacing the U channel, <b>Outfall A</b> interfacing the gabion channel, <b>Intake C/RP3</b> interfacing the abion channel and <b>Outfall B/RP4</b> interfacing Ngong Ping Stream (see Figures 2.9a - 2.9g). For the works in the above listed areas,	^
n impermeable <b>cofferdam or similar barrier</b> to the level above the stream bank shall be erected to completely enclose these areas	
efore any works are undertaken. This will ensure that any contaminated runoff from the works areas will not get into the ambient	
vatercourses. These barriers shall not be removed until the interfacing works and the relevant upstream connected drains have been	
ompleted. All exposed earth areas should be completed and vegetated as soon as possible after the earthworks have been	
ompleted, or alternatively, within 14 days of the cessation of earthworks where practicable;	
Exposed slope surfaces should be covered by tarpaulin or other means during the rainy season;	٨
The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states	
hat the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. The sizes may vary depending upon	
he flow rate, but for a flow rate of 0.1m <sup>3</sup> /s, a sedimentation basin of 30m <sup>3</sup> would be required and for a flow rate of 0.5m <sup>3</sup> /s the basin	^
vould be 150m <sup>3</sup> . The detailed design of the sand/silt traps should be undertaken by the contractor prior to the commencement of	
onstruction;	
The overall slope of works sites should be kept to a minimum to reduce the erosive potential of surface water flows, and all	
rafficked areas and access roads should be protected by coarse stone ballast. An additional advantage accruing from the use of	
rushed stone is the positive traction gained during the prolonged periods of inclement weather and the reduction of surface sheet	^
l S S I S I	
All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure their	
roper and efficient operation at all times particularly following rainstorms. Deposited silts and grits should be removed regularly	^
nd disposed of proper waste receiving facilities. As the area is within the water gathering grounds, on-site disposal of silts/grits	
hall not be allowed;	
Measures should be taken to minimise the ingress of site drainage into excavations. If the excavation of trenches in wet season	
s inevitable, they should be dug and backfilled in short sections wherever practicable. The water pumped out from trenches or	۸
oundation excavations should be discharged into storm drains via silt removal facilities;	
Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt,	۸
onstruction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers;	
Precautions to be taken at any time of the year when rainstorms are likely, actions to be taken when a rainstorm is imminent or	
precasted and during or after rainstorms, are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid	^
o the control of silty surface runoff during storm events, especially for areas located near steep slopes;	
All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is	
leposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at the exit of every	
onstruction site where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to	^
ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel- washing bay to public roads should be paved with sufficient backfall toward the wheel-washing bay to prevent vehicle tracking of soil and silty water	
o public roads and drains;	
<ul> <li>Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. Oil interceptors should</li> </ul>	
e emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental	N/C
pillage. A bypass should be provided for oil interceptors to prevent flushing during heavy rain;	, .
Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust and surface run off.	^
leasures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system;	^
Major stockpiled areas shall be sited outside of the country parks area (Works Section 6) and away from stream courses as far as	
racticable. For the stockpiling area SA4 within the country park area, stockpiling of earthed material shall be minimised and	
xcavated soil from Works Section 6 shall be delivered to the Site Office as soon as possible. Similarly, overnight stockpiling of	۸
arthed material along the exposed trench shall be minimised as far as possible and the excavated soil shall be transferred to the	
esignated stockpiling area as soon as possible;	
The Contractor shall comply with WSD's General Conditions for Working within Water Gathering Grounds as applicable;	۸
The construction solid waste, debris and rubbish on-site should be collected, handled and disposed of properly to avoid causing	^
ny water quality impacts. The requirements for solid waste management are detailed in Section 9 of this EIA report; and	~
All fuel tanks and chemical and bentonite storage areas should be provided with locks and sited on sealed areas, within bunds	^
f a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching the nearby WSRs.	Λ
here is a need to apply to the EPD for a discharge licence for discharge of effluent from the construction site under the WPCO.	
he discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated	
om the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. It should particularly noted that	
he TM-DSS specifically <b>prohibits</b> the discharge of the following substances into the inland waters:	N/A
🛛 polychlorinated biphenyls (PCB); 🔳 polyaromatic hydrocarbon (PAH); 🔳 fumigant, pesticide or toxicant ;	
🛛 radioactive substances ; 🔲 chlorinated hydrocarbons; 🔲 flammable or toxic solvents ;	

Environmental Protection Measures (Construction Phase) <sup>(1)</sup>	Status
■ sludge or solid refuse of any kind; and ■ detergents in Group A inland waters only. The beneficial uses of the treated effluent for other on- site activities such as dust suppression, wheel washing and general cleaning etc, can minimise water consumption and reduce the effluent discharge volume and shall be encouraged. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should	٨
be carried out in accordance with the WPCO license.	
In addition to compliance with the discharge licence requirement, to prevent bank side erosion, the discharge of site effluents shall be either at existing storm drains or artificial channels. No effluent or treated surface runoff shall be allowed to discharge at natural stream course.	N/A
The use of bentonite slurries shall be minimised as far as possible. In addition to the requirement of a peripheral bunds and drainage system for the WA4 and SO, where the bentonite slurries will be used, to prevent any accidental release of bentonite slurry from getting into the surrounding environment, the following specific control measures shall be followed to reduce the risk and impacts of accidental spillage:	
■ All bentonite slurry should be stored in a container that resistant to corrosion, maintained in good conditions and securely closed;	٨
The container should be labelled in English and Chinese and note that the container is for storage of bentonite slurry only;	۸
■ The storage container should be placed on an area of impermeable flooring and bunded with capacity to accommodate 110% of the volume of the container size or 20% by volume stored in the area and enclosed with at least 3 sides; and	۸
■ Sufficiently covered to prevent rainfall entering the container or bunded area (water collected within the bund must be tested and disposed of as chemical waste, if necessary).	۸
In order to reduce the possibility of frac-out, detailed ground investigation shall be undertaken to evaluate the likelihood of frac- out and if necessary advanced ground treatment applied before the commencement of the pipe jacking works. A member of the Contractor's site staff shall, also, be dedicated to closely monitor the ground surface above the pipe jacking head for any frac-outs release. The pipe jacking works and application of bentonite shall immediately stop if frac- outs are observed. Any frac-out shall be immediately cleaned or bunded to prevent spreading of the bentonite slurry. The Contractor shall immediately notify the Engineer and propose rectification measures to prevent further frac-out to the satisfaction of the Engineer before pipe jacking works resume. An emergency clean up kit shall be readily available at Works Section 2 and 6 where pipe jacking will be undertaken.	٨
The handling and disposal of bentonite slurries should be undertaken in accordance within ProPECC PN 1/94. Surplus bentonite slurries used in construction works shall be reconditioned and reused wherever practicable. Residual bentonite slurry shall be disposed of from the site as soon as possible as stipulated in Clause 8.56 of the General Specification for Civil Engineering Works. The Contractor should explore alternative disposal outlets for the residual bentonite slurry (dewatered bentonite slurry to be disposed to a public filling area and liquid bentonite slurry if mixed with inert fill material to be disposed to a public filling area) and disposal at landfill should be the last resort.	^
The contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General)	۸
Regulation should be observed and complied with for control of chemical wastes. Any maintenance facilities should be located outside Works Section 6 in the Lantau North Country Park. Such facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges. All maintenance activities which may generate chemical waste shall be undertaken in the Site Office area, as far as possible.	۸
Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows:	
given as follows:  Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and	۸
transport; Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents; and	٨
accidents; and ■ Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	٨
In order to minimise the risk of accidental spillage, the use and storage of oils/chemicals/waste should be limited to absolute minimum volume and are to be removed from sites at the earliest opportunity. However, all chemical waste, fuels and oils shall be stored at the Site Office (SO), to minimise impact to the Lantau North Country Park and water gathering grounds.	۸
In order to protect against an accidental spillage of fuel or oil, the Contractor will be required to prepare a <b>spill response plan</b> to the satisfaction of AFCD, EPD, FSD, HyD, Police, TD and WSD to define procedures for the control, containment and clean-up of any spillage that could occur on the construction site.	٨
At all times, the Contractor shall comply with WSD's General Conditions for Working within Water Gathering Grounds as applicable.	٨
The sewage of the site office will be connected the existing sewer networks and be treated at the Ngong Ping STW. Portable chemical toilets and sewage holding tanks are recommended for the handling of the construction sewage generated by the workforce at other works area. The use of temporary toilets within the water gathering ground, however, is also subject to the approval of Water Services Department. <b>A licensed contractor</b> should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance	٨
The Outfall A and Intake C and associated works areas are within the gabion channel, the construction and operation of which was previously governed by the Environmental Permit EP-192/2004. While the EP was surrendered in May 2007, the currently proposed	۸

#### Environmental Protection Measures (Construction Phase) <sup>(1)</sup>

works at these locations shall, also, comply with the specific conditions of the EP (see Section 2.7 of this Report) as far as possible and in particular avoid works in the rainy period between April and September so as to minimise potential water quality pollution to the lowest possible.

D) Ecology	
Good construction practice measures which should be implemented and should include:	
avoid damage and disturbance to the remaining and surrounding natural habitat;	^
placement of equipment in designated areas within the existing disturbed land;	۸
spoil heaps should be covered at all times;	۸
<ul> <li>construction activities should be restricted to the proposed works boundary; and</li> </ul>	۸
disturbed areas to be reinstated immediately after completion of the works.	^
Landscape compensatory planting is recommended as mitigation for the loss of landscape and habitat. Recommended Planting Species included:	
Tree	
Cinnamomum burmannii,	
Elaeocarpus sylvestris	
Ficus microcarpa	N/A
Pongamia pinnata	IN/A
Schefflera heptaphylla	
Sapium discolor	
Minimisation mitigation measures required to protect water quality and the three aquatic faunal species of conservation would comprise controlling surface runoff:	
All works on the banks of the natural stream should be undertaken within the dry season, where practical;	N/A
Perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented;	N/A
Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided to divert the stormwater to silt removal facilities;	۸
Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources;	N/A
Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust and surface run off;	^
Overnight stockpiling of earthed material along the exposed trench shall be minimised as far as possible and excavated soil shall be transferred to the designated stockpiling area as soon as possible;	^
All bentonite slurry shall be suitably stored in accordance with Section 5.8.8 of this EIA Report to minimise the chance of spillage;	۸

Perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented;	N/A
Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided to	۸
divert the stormwater to silt removal facilities;	
<ul> <li>Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources;</li> </ul>	N/A
Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust and surface run off;	^
• Overnight stockpiling of earthed material along the exposed trench shall be minimised as far as possible and excavated soil shall	^
be transferred to the designated stockpiling area as soon as possible;	
All bentonite slurry shall be suitably stored in accordance with Section 5.8.8 of this EIA Report to minimise the chance of spillage;	^
■ All fuel tanks and storage areas should be provided with locks and sited on sealed areas, within bunds of a capacity equal to	^
110% of the storage capacity of the largest tank to prevent spilled fuel oils; and	Λ
Pipe jacking areas shall be closely monitored for frac-outs release of bentonite and frac-out area immediately cleaned if they	^
occur.	

The particular measures to protect the ecology of the Lantau North Country Park are summarised below:

Major stockpiled areas shall be sited outside of the country parks area (Works Section 6) and away from stream courses as far as ۸ practicable; All backfilling material and cement required for this Works Section 6 shall be delivered daily and only the quantity required; ۸

■ No storage of chemicals and waste in Works Section 6; and ■ No construction plant maintenance facilities in Works Section 6.

Treated site drainage shall be discharged via the existing drainage system or diverted to the artificial channel to prevent stream bank erosion and directly affect the stream ecology. No site drainage shall be allowed to be discharged at the natural stream bank. E) Landscape and Visual

To maximize protection of existing resources including watercourses existing trees, ground vegetation and the associated understory habitats a "No-intrusion Zone" will be designated to various areas within and along the site boundary with rigid and durable fencing Λ for each individual no-intrusion zone. Regular checks will be carried out to ensure that the work site boundaries are not exceeded, hoarding is properly maintained and that no damage is being caused to these protected areas.

A temporary screen hoarding shall be erected around the north side of the Site Office (SO) area to screen activities from local receivers. It shall be designed and to be compatible with the existing rural context, with visually unobtrusive design and colours where appropriate.

No night time work shall be programmed avoiding light pollution to visual receivers.

F) Cultural Heritage

Four built heritage resources have been identified as being located in close proximity to the proposed works areas, namely, NP-19, NP-20, NP-21 and NP-26, as detailed in Appendix G1 and shown in Figures 8.12, 8.13 and 8.15 of the EIA Report. The structures may -be damaged by contact with machinery and equipment. The recommended mitigation measures for each resource are as follows: A buffer zone of a minimum of 5 metres in size (or if due to site/engineering constraints, as large as possible buffer zone should

be provided) should be marked out for NP-19, NP-20, NP-21 and NP-26 by temporary fencing and placed around the structures 2 ۸ weeks prior to the construction works commencing.

Three built heritage resources have been identified as being in close proximity to an excavation area (NP-10, NP-11 and NP-19), a condition survey must be carried out by a qualified building surveyor or engineer one month in advance of works commencing near ۸ the buildings that may be affected by ground borne vibration. The Condition Survey Report should contain descriptions of the structure, identification of fragile elements, an appraisal of the condition and working methods for any proposed monitoring

Status

Λ ^

^

^

#### Environmental Protection Measures (Construction Phase) <sup>(1)</sup>

(including frequency of monitoring) and precautionary measures that are recommended. The Contractor must implement the approved monitoring and precautionary measures.

Vibration monitoring should be undertaken for the duration of the construction works based upon the recommendations of the approved Condition Survey Report, which will also define the frequency of monitoring required. The maximum acceptable level of vibration will be set at 15 mm/s. Based upon the findings of the condition survey, this limit may be revised for sensitive structures. The location of monitoring points should be situated on the structure closest to the construction works, unless the maximum level is set lower than the standard 15 mm/s, in which case monitoring points should be located on each affected structure. Installation of monitoring points must not damage the historic building fabric. The location of monitoring points (and access to the property for purposes of measurement) must be agreed with the property owner prior to installation.

#### G) Waste Management

The requirements as stipulated in the ETWB TC(W) No.19/2005 Environmental Management on Construction Sites and the other relevant guidelines should be included in the Particular Specification for the Contractor as appropriate.

The future Contractor should be requested to submit a Waste Management Plan (WMP), which becomes part of the Environmental Management Plan (EMP), prior to the commencement of construction work, in accordance with the ETWB TC(W) No.19/2005 so as to provide an overall framework of waste management and reduction. The WMP should include:

Waste management policy; Record of generated waste; Waste reduction target; Kaste reduction programme;
 Role and responsibility of waste management team; Benefit of waste management; Analysis of waste materials;

Reuse, recycling and disposal plans; Transportation process of waste products; and Monitoring and action plan.

A trip-ticket system should be established in accordance with DevB TC(W) No. 6/2010 and Waste Disposal (Charges for Disposal of Construction Waste) Regulation to monitor the disposal of public fill and solid wastes at public filling facilities and landfills, and to control fly-tipping. A trip-ticket system would be included as one of the contractual requirements for the Contractor to strictly implement. The Engineer would also regularly audit the effectiveness of the system.

A recording system for the amount of waste generated, recycled and disposed (locations) should be established. The future Contractor should also provide proper training to workers regarding the appropriate concepts of site cleanliness and waste management procedures, e.g. waste reduction, reuse and recycling all the time.

The CEDD should be timely notified of the estimated volumes of excavated materials to be generated and the Public Fill Committee should be notified and agreement sort on the disposal of surplus inert C&D materials. Wherever practicable, C&D materials should be segregated from other wastes to avoid contamination and to ensure acceptability at public filling areas or reclamation sites.

Recommendations for good site practices:	
■ The site and surroundings shall be kept tidy and litter free;	^
■ No waste shall be burnt on-site;	^
Make provisions in contract documents to allow and promote the use of recycled aggregates where appropriate;	^
The Contractor will be prohibited to dispose of C&D materials within the proposed site and at any sensitive locations including	۸
Lantau North Country Park, the Lantau South Country Park, the Ngong Ping Site of Special Scientific Interest, the Lantau Peak Special	
Area and Site of Special Scientific Interest and the Conservation Area, etc. The Contractor should propose the final disposal sites in	
the EMP and WMP for approval before implementation;	

Stockpiled material shall be covered by tarpaulin and /or watered as appropriate to prevent windblown dust and surface run off;
 Major stockpiled areas shall be sited outside of the country parks area (Works Section 6) and away from stream courses as far as practicable. For the stockpiling area SA4 within the country park area, stockpiling of earthed material shall be minimised and excavated soil from Works Section 6 shall be delivered to the Site Office as soon as possible. Similarly, overnight stockpiling of earthed material along the exposed trench shall be minimised as far as possible and the excavated soil shall be transferred to the designated stockpiling area as soon as possible;

Excavated material in trucks shall be covered by tarpaulins to reduce the potential for spillage and dust generation;	^
Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads;	^
■ Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising. The use of more durable formwork or plastic facing for construction works should also be considered. The use of wooden hoardings should be avoided and metal hoarding should be used to facilitate recycling. Purchasing of construction materials should be carefully planned in order to avoid over-ordering and wastage;	^
■ The Contractor should recycle as many C&D materials as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap	^
steel mills. Different areas of the sites should be considered for segregation and storage activities; and Subject to agreement with Water Service Department, adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilising them. Night soil should be regularly collected by licensed collectors.	^
Recommendations for waste reduction measures:	
General refuse arising on-site should be stored in enclosed bins or compaction units separately from C&D and chemical wastes. General refuse shall be removed from Works Section 6 within the country park on the regular basis. Sufficient dustbins shall be	۸

provided for storage of waste as required under the Public Cleansing and Prevention of Nuisances By-laws. In addition, general

## Status

## Environmental Protection Measures (Construction Phase) <sup>(1)</sup>

Status

refuse shall be cleared regularly and shall be disposed of to the nearest licensed landfill or refuse transfer station. Burning of refuse on construction sites is prohibited;

All waste containers shall be in a secure area on hardstanding;

<ul> <li>All waste containers shall be in a secure area on hardstanding;</li> </ul>	۸
<ul> <li>Aluminium cans are usually collected and recovered from the waste stream by individual collectors if they are segregated and</li> </ul>	^
easily accessible. Separately labelled bins for their deposition should be provided as far as practicable;	
Office wastes can be reduced by recycling of paper if such volume is sufficiently large to warrant collection. Participation in a	
local collection scheme by the Contractor should be advocated. Waste separation facilities for paper, aluminium cans, plastic bottles,	^
etc should be provided on- site; and	
Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedure,	۸
including waste reduction, reuse and recycling.	
Chemical waste producers should register with the EPD. Chemical waste should be handled in accordance with the Code of	
Practice on the Packaging, Handling and Storage of Chemical Wastes as follows:	
Suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed;	^
Having a capacity of <450L unless the specifications have been approved by the EPD;	N/A
Displaying a label in English and Chinese according to the instructions prescribed in Schedule 2 of the Regulations;	^
Clearly labelled and used solely for the storage of chemical wastes;	۸
Enclosed with at least 3 sides;	^
■ Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of	^
the chemical waste stored in the area, whichever is greatest;	~
Adequate ventilation;	۸
Sufficiently covered to prevent rainfall from entering (water collected within the bund must be tested and disposed of as chemical	^
waste, if necessary);	~
<ul> <li>Incompatible materials are adequately separated;</li> </ul>	^
All chemical waste, fuels and oils shall be stored at the Site Office area, to minimise impacts to the Country Park and water	^
gathering grounds;	
All maintenance activities which may generate chemical waste shall be undertaken in Site Office area, as far as possible;	۸
The Contractor shall comply with WSD's General Conditions for Working within Water Gathering Grounds as applicable; and	۸

Remark:

$\wedge$	Compliance of mitigation measure in the reporting period.
#	Recommendations were made in the reporting period but has not yet been improved/rectified by the Contractor.
Х	Non-compliance of mitigation measure in the reporting period.
N/A	Not Applicable in the reporting period.
N/O	Not observed in the reporting period.
(1)	Detailed EIA report and EM&A Manual reference refer to the Appendix A of approved EM&A Manual.

# **Appendix C3 Summary of Site Inspection**

Inspection Date	Observations/ Reminders/ Recommendations	Follow Up Action	Completion Date
Follow Up action(s)		-	
of	NIL.	N.A	N.A
last reporting month			
Weekly Site Ins	pection		
	Observation		
07/02/2023	1) Tarpaulin sheet should be provided under the rock breaker	1) Tarpaulin sheet was	07/02/2023
01/02/2023	(Bay 1).	placed under the rock	
		breaker at Bay 1.	
	Observation		
	1) Tree femces should be provided for tree protection (L301).	1) Tree protection has	10/02/2022
		been improved at L301.	18/02/2023
17/02/2022	Reminder	·	
17/02/2023	1) The contractor was reminded that no firther damage to the		
	tree AT3 (Intake 1).		
	2) Mitigtion measures of waste water should be enhanced		
	before wet season (Outfall 2).		
21/02/2023			
	Observation		
	1) Construction materials should be cleared inside the tree	e1) Construction materials	28/02/2023
	protection zone (Bay 9-10).	was removed.	
20/02/2022	2) Purchase and the second line should be shou	2) Damaged sand bags	28/02/2023
28/02/2023	2) Broken sandbags should be cleared (outfall 1).	were removed at outfall 1	
		3) Chemical containers	02/03/2023
	3) Drip tray should be provided for chemical containers (L305A)	).have been removed near	
		L305A.	
Landscape and	Visual		
07/02/2023			
21/02/2023	Recommendation		
	1) Please pay extra caution when doing work cloase to existing	1	
	tree to avoid damages		
<b>Cultural Heritag</b>	16		
28/02/2023			
	transplantation Works		
Monthly Floral	Protection Measures		
17/02/2023			

# **Cultural Heritage**

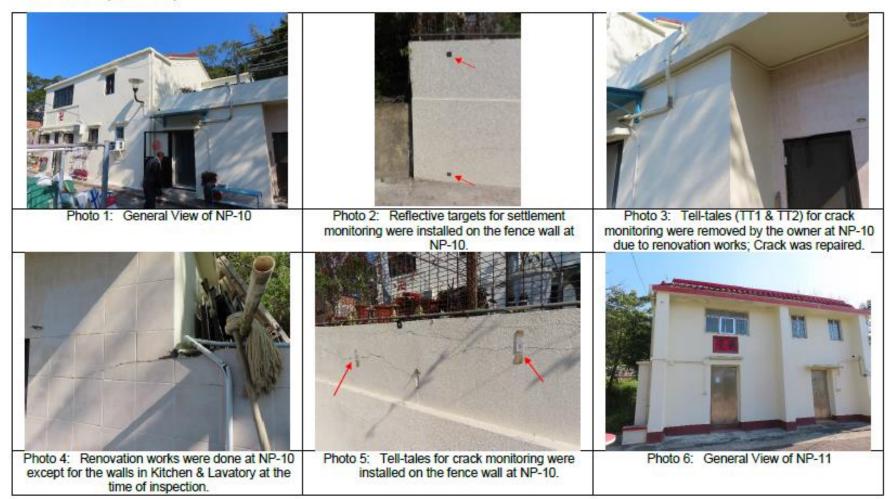
FUGRO

Contract No. DPW 01/2020 – Environmental Team for Drainage Improvement Works at Ngong Ping (DC/2019/06)

e: 28/2/2023	Weather:	Sunny / Fine / Overcast /	Rainy / Hazy Wind:	Calm (Light / Breeze / Strong
ne: 9:30	Temperature:	16 °C	Humidity:	High / Moderate / Low
thly Environmental Site Audit ervations/ Reminders/ Recom Follow-up of previous obse		ıp:		
Observation(s)				
All monitoring devices i	vere found installed	at appropriate locations		
· · · · · · · · · · · · · · · · · · ·				
				1 B
Reminder(s)	6			
Na				
acted by	(mali-1	E	A	28/2/2
ified Building Surveyor (ET):	STEPHEN	Funds	- Con	28/2/2
owledged by esentatives of the ER:	drow the	in Wa'	840	28./2/2
ed with Main Contractor:	Intra CE	1 A Va	N	78/7/2

# -fugeo

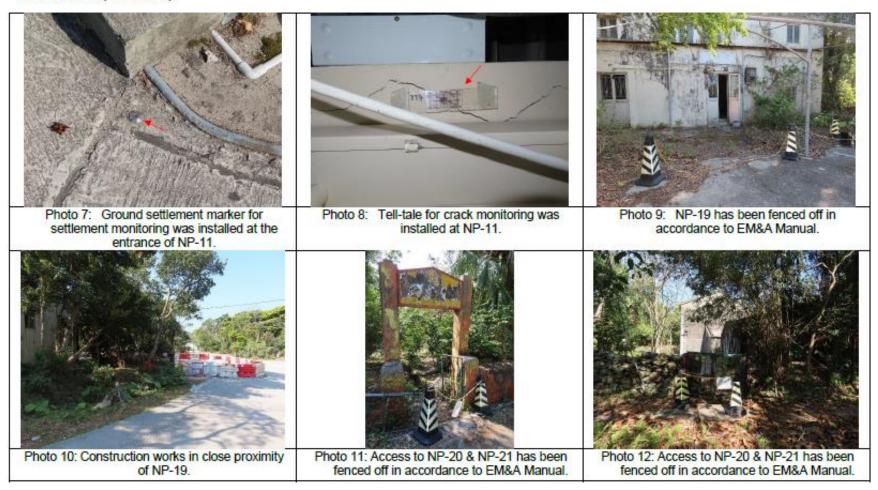
Photo Record (28/02/2023)



Drainage Improvement Works at Ngong Ping Monthly EM&A Report

# -FUGRO

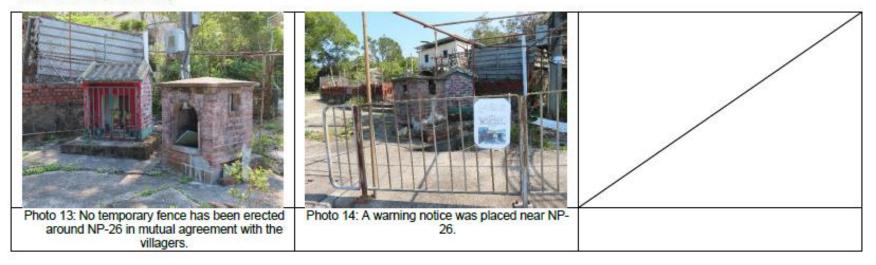
Photo Record (28/02/2023)



Drainage Improvement Works at Ngong Ping Monthly EM&A Report

# -fugro

Photo Record (28/02/2023)



No.	Environmental Protection Measures (Construction Phase) (1)	Location & (Implementation Agent)	Yes (√),No (×) N/A, N/O	Remark(s)
	F) Cultural Heritage			
Fl	Four built heritage resources have been identified as being located in close proximity to the proposed works areas, namely, NP-19, NP-20, NP-21 and NP-26, as detailed in Appendix G1 and shown in Figures 8.12, 8.13 and 8.15 of the EIA Report. The structures may be damaged by contact with machinery and equipment. The recommended mitigation measures for each resource are as follows: A buffer zone of a minimum of 5 metres in size (or if due to site/engineering constraints, as large as possible buffer zone should be provided) should be marked out for NP-19, NP-20, NP-21 and NP-26 by temporary fencing and placed around the structures 2 weeks prior to the construction works commencing.	All relevant built heritage resources (Contractor and Sub- contractors)	$\checkmark$	Nil
	Three built heritage resources have been identified as being in close proximity to an excavation area (NP-10, NP-11 and NP-19), a condition survey have been carried out by a qualified building surveyor in advance of works commencing near the buildings that may be affected by ground borne vibration. The Condition Survey Report should contain descriptions of the structure, identification of fragile elements, an appraisal of the condition and working methods for any proposed monitoring (including frequency of monitoring) and precautionary measures that are recommended. The Contractor must implement the approved monitoring and precautionary measures.			
	Condition Survey Report, which will also define the frequency of monitoring required. The maximum acceptable level of vibration will be set at 15mm/s. Based upon the findings of the condition survey, this limit may be revised for sensitive structures. The location of monitoring points should be situated on the structure closest to the construction works, unless the maximum level is set lower than the standard 15 mm/s, in which case monitoring points should be located on each affected structure. Installation of monitoring points must not damage the historic building fabric. The location of monitoring points (and access to the property for purposes of measurement) must be agreed with the property owner prior to installation.		$\checkmark$	Nil.

(1) Detailed EIA report and EM&A Manual reference refer to the Appendix A of approved EM&A Manual. N/A: Not Available, N/O: Not Observed.

# **Monthly Floral Protection Measures**

1	UGRO
	)

#### Contract No. DPW 01/2020 – Environmental Team for Drainage Improvement Works at Ngong Ping (DC/2019/06)

Date:	17/02/2023	Weather:	Sunny	/ Fine / Overcast / Rainy / Hazy	Wind:	Calm / Light / Breeze / Strong
Time:	10:30	Temperature:	16	°C	_ Humidity:	High (Moderate) Low

#### Monthly Environmental Site Audit for Floral Protection Measures

Observations/ Reminders/ Recommendations / Follow-up: Follow-up of previous observation(s)

Observation(s)

Protection Measures	Location		Actions to be Tak	ken	Remarks
Frotection Measures	Location	Retain	Replace	Repair	remarks
Post Indicating Prohibition of Access					
1	West of Columbanium		1		The post is nowhere to be
2					The post is powhere to be
Solid Fencing Around Plant Species			1		DOT NO
1	Neon autfall B		sil	~	Fencing should be fixed

# -Fugro

Solid Fencing at Access Entrance		Retain	Replace	Repair	
1	Behind WAY Grear road of			1	Post should be installed for
2	Behind SA4	1			fire solid fearing to be field hvoid tying the fincing to
3	Near waterfall of sty	0			Post toward be installed
Warning Signposts/Labels					for the still being to as t
Gleditsia 1	Along Storm drain Pipe	$\checkmark$			
Christia 2	"Survey	1			
Ehretia 3	Along Storm drain pipe alignment (lover to SA4)			1	The signpost is nowhere to be found
Ehretia 4	In SA4			1	Post should be fixed properly

Reminder(s)

<u></u>	Name	Signature	Date
Inspected by Representative from ET:	TILLO, JHOMAR	Sheeft	17/02/2023
Acknowledged by representatives of the ER:	Dave Chei	Ð	12/05/2023
Agreed with Main Contractor:	Textle Pa	A	17/2/2023
Checked by IEC:	Tandy Tee	-4	17/2/2023

# **Appendix D Monitoring Parameters Action and Limit Levels**

## <u>Noise</u>

Action and Limit Levels for Impact Monitoring

	Monitoring		
Time Period	Location No.	Action Level	Limit Level*
	NSR1	When one documented	70 dB(A)
	Columbarium of Po Lin Monastery	complaint is received.	
Leq),dB(A)	NSR5	When one documented	75 dB(A)
(	in Village House No. 49A	complaint is received.	
normal weekdays) <sup>(1)</sup>	NSR8	When one documented	75 dB(A)
	Village House No. 34	complaint is received.	

#### Note:

\*75 dB(A) for residential premises and 70 dB(A) for educational institutions, kindergartens, nurseries and all others where voice communication

(1) Any general construction work carried out during restricted hours is controlled by Construction Noise Permit (CNP) under the NCO.

## Water Quality

Action and Limit Levels for Impact Monitoring

			-					
Parameter(s)	DO ir	n mg/L	Turbidit	ty in NTU	pH			ended s in mg/L
Station(s)	AL	LL	AL	LL	AL	LL	AL	LL
WS1-R1								
WS1-I1	7.36	7.32	15.8 <sup>(5)</sup>	17.3 <sup>(6)</sup>	$< 6.5^{(3)} \text{ or } > 6.9^{(4)}$	<6.5 or >8.5	14 <sup>(5)</sup>	14 <sup>(6)</sup>
WS1-R2								
WS1-I2	7.19	7.11	16.4 <sup>(5)</sup>	18.4 <sup>(6)</sup>	$< 6.5^{(3)} \text{ or } > 6.9^{(4)}$	<6.5 or >8.5	10 <sup>(5)</sup>	14 <sup>(6)</sup>
WS4-R3								
WS4-13	7.29	7.28	22.9 <sup>(5)</sup>	31.2 <sup>(6)</sup>	$< 6.9^{(3)} \text{ or } > 7.2^{(4)}$	<6.5 or >8.5	13 <sup>(5)</sup>	13 <sup>(6)</sup>
WS5-R4								
WS5-I4	6.75	6.64	24.7 <sup>(5)</sup>	28.2 <sup>(6)</sup>	$< 6.6^{(3)} \text{ or } > 7.1^{(4)}$	<6.5 or >8.5	9 <sup>(5)</sup>	9 <sup>(6)</sup>
WS6-R5								
WS6-15	6.31	6.23	12.6 <sup>(5)</sup>	13.2 <sup>(6)</sup>	$< 6.6^{(3)} \text{ or } > 7.0^{(4)}$	<6.5 or >8.5	10 <sup>(5)</sup>	10(6)
WS6-C1								
WS6-R6								
WS6-I6	6.57	6.38	21.7 <sup>(5)</sup>	23.7 <sup>(6)</sup>	$< 6.9^{(3)} \text{ or } > 7.1^{(4)}$	<6.5 or >8.5	12 <sup>(5)</sup>	13 <sup>(6)</sup>

Note:

AL: Action Level, LL: Limit Level

(3) Or 80% of upstream control station.

(4) Or 110% of upstream control station.

(5) Or 120% of upstream control station of the same day.

(6) Or 130% of upstream control station of the same day.

# **Appendix E Event and Action Plans**

# Event and Action Plan for Construction Noise Monitoring

		ΑСΤ	ION	
EVENT	ET <sup>(1)</sup>	IEC <sup>(1)</sup>	Engineer	Contractor
Action Level	<ol> <li>Notify the IEC and Contractor.</li> <li>Carry out investigation.</li> <li>Report the results of investigation to the IEC and Contractor.</li> <li>Discuss with the Contractor and formulate remedial measures.</li> <li>Increase monitoring frequency to check mitigation effectiveness.</li> </ol>	<ol> <li>Review the analysed results submitted by the ET.</li> <li>Review the proposed remedial measures by the Contractor and advise the Engineer accordingly.</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol> <li>Confirm receipt of notification of failure in writing.</li> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> </ol>	<ol> <li>Submit noise mitigation proposals to the IEC.</li> <li>Implement noise mitigation proposals.</li> </ol>
Limit Level	<ol> <li>Notify the IEC, Engineer, EPD and Contractor.</li> <li>Identify sources.</li> <li>Repeat measurements to confirm findings.</li> <li>Increase monitoring frequency.</li> <li>Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented.</li> <li>Inform the IEC, Engineer and EPD the causes and action taken for the exceedances.</li> <li>Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD and Engineer informed of the results.</li> <li>If exceedance stops, cease additional monitoring.</li> </ol>	Contractor on the potential remedial action. 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the Engineer accordingly.	<ol> <li>Confirm receipt of notification of failure din writing.</li> <li>Notify the Contractor.</li> <li>Require the Contractor to propose remedial measures for the analysed noise problem.</li> <li>Ensure remedial measures are properly implemented.</li> <li>If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated.</li> </ol>	<ol> <li>Fake immediate action to avoid further exceedance.</li> <li>Submit proposals for remedial action to the IEC within 3 working days of notification.</li> <li>Implement the agreed proposals.</li> <li>Resubmit proposals if problems still not under control.</li> <li>Stop the relevant portion of works as</li> </ol>

Note: (1) ET - Environmental Team, IEC - Independent Environmental Checker; (2) According to EM&A Manual Table 3.4.

# Drainage Improvement Works at Ngong Ping Monthly EM&A Report

# Event and Action Plan for Water Quality Monitoring (Part 1)

	ACTION					
EVENT	ET <sup>(1)</sup>	IEC <sup>(1)</sup>	ER <sup>(1)</sup>	Contractor		
Action Level being exceeded by one sampling day	<ol> <li>Repeat in-situ measurement to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform the IEC and the Contractor;</li> <li>Check monitoring data, all plant, equipment and the Contractor's working methods;</li> <li>Discuss mitigation measures with the IEC and the Contractor;</li> <li>Repeat measurement on next day of exceedance.</li> </ol>	<ol> <li>Discuss with the ET and the Contractor on the mitigation measures;</li> <li>Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly;</li> <li>Access the effectiveness of the implemented mitigation measures</li> </ol>	<ol> <li>Discuss with the IEC on the proposed mitigation measures;</li> <li>Make agreement on the mitigation measures to be implemented.</li> </ol>	<ol> <li>Inform the ER and confirm notification of the non- compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Check all plant and equipment;</li> <li>Consider changes of working methods;</li> <li>Discuss with the ES and the IEC and propose mitigation measures to the IEC</li> </ol>		
Action Level being exceeded by more than one consecutive sampling days	<ol> <li>Repeat in-situ measurement to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform the IEC and the Contractor;</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>Discuss mitigation measures with the IEC and the Contractor;</li> <li>Ensure mitigation measures are implemented;</li> <li>Prepare to increase the monitoring frequency to daily;</li> </ol>	<ol> <li>Discuss with the ET and the Contractor on the mitigation measures;</li> <li>Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly;</li> <li>Access the effectiveness of the implemented mitigation measures</li> </ol>	<ol> <li>Discuss with IEC on the proposed mitigation measures;</li> <li>Make agreement on the mitigation measures to be implemented;</li> <li>Access the effectiveness of the implemented mitigation measures.</li> </ol>	<ol> <li>Inform the ER and confirm notification of the non- compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Check all plant and equipment;</li> <li>Consider changes of working methods;</li> <li>Discuss with the ES and the IEC and propose mitigation measures to the IEC and ER within 3 working days;</li> <li>Implement the agreed mitigation</li> </ol>		

## ACTION

# Event and Action Plan for Water Quality Monitoring (Part 2)

	ACTION						
EVENT	ET <sup>(1)</sup>	IEC <sup>(1)</sup>	ER <sup>(1)</sup>	Contractor			
Limit Level being exceeded by one consecutive sampling day	<ol> <li>Repeat in-situ measurement to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform the IEC, the Contractor and the DEP</li> <li>Check monitoring data, all plant, equipment and the Contractor's working methods;</li> <li>Discuss mitigation measures with the IEC, the ER and the Contractor;</li> <li>Ensure mitigation measures are implemented;</li> <li>Increase the monitoring frequency to daily until no exceedance of Limit Level.</li> </ol>	Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly; 3. Access the effectiveness of the implemented mitigation measures.	<ol> <li>Discuss with the IEC, the ES and the Contractor on the proposed mitigation measures;</li> <li>Request the Contractor to critically review the working methods;</li> <li>Make agreement on the mitigation measures to be implemented;</li> <li>Access the effectiveness of the implemented mitigation measures.</li> </ol>	<ol> <li>Inform the Engineer and confirm notification of the non-compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Check all plant and equipment;</li> <li>Consider changes of working methods;</li> <li>Discuss with the ES, the IEC and the ER and propose mitigation measures to the IEC and the ER within 3 working days;</li> <li>Implement the agreed mitigation measures.</li> </ol>			
Limit Level being exceeded by more than one consecutive sampling days	<ol> <li>Repeat in-situ measurement to confirm findings;</li> <li>Identify source(s) of impact;</li> <li>Inform the IEC, the Contractor and DEP;</li> <li>Check monitoring data, all plant, equipment and Contractor's working methods;</li> <li>Discuss mitigation measures with the IEC, the ER and the Contractor;</li> <li>Ensure mitigation measures are implemented;</li> <li>Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.</li> </ol>	<ol> <li>Discuss with ET and Contractor on the mitigation measures;</li> <li>Review proposals on mitigation measures submitted by the Contractor and advise the ER accordingly;</li> <li>Access the effectiveness of the implemented mitigation measures.</li> </ol>	<ol> <li>Discuss with the IEC, the ES and the Contractor on the proposed mitigation measures;</li> <li>Request Contractor to critically review the working methods;</li> <li>Make agreement on the mitigation measures to be implemented;</li> <li>Access the effectiveness of the implemented mitigation measures;</li> <li>Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works until no exceedance of Limit Level.</li> </ol>	<ol> <li>Inform the ER and confirm notification of the non- compliance in writing;</li> <li>Rectify unacceptable practice;</li> <li>Check all plant and equipment;</li> <li>Consider changes of working methods;</li> <li>Discuss with the ES, the IEC and the ER and propose mitigation measures to the IEC and the ER within 3 working days;</li> <li>Implement the agreed mitigation measures;</li> <li>As directed by the ER, slow down or stop all or part of the construction activities.</li> </ol>			

### ACTION

Note: (1) ET - Environmental Team, IEC - Independent Environmental Checker; (2) According to EM&A Manual Table 4.4.

## Event / Action Plan for Ecological Monitoring

<b>Action Level</b>	<b>ET</b> <sup>(1)</sup>	<b>IEC</b> <sup>(1)</sup>	<b>ER</b> <sup>(1)</sup>	Contractor
Non-conformity on one occasion	Identify Source Inform the IEC and the ER Discuss remedial actions with the IEC, the ER and the Contractor Monitor remedial actions until rectification has been completed	Check report Check the Contractor's working method Discuss with the ET and the Contractor on possible remedial measures Advise the ER on effectiveness of proposed remedial measures. Check implementation of remedial measures.	Notify Contractor Ensure remedial measures are properly implemented Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of a serious non- conformity until situation rectified.	Amend working methods Rectify damage and undertake any necessary replacement
Repeated Non conformity	Identify Source Inform the IC(E) and the ER Increase monitoring frequency Discuss remedial actions with the IC(E), the ER and the Contractor Monitor remedial actions until rectification has been completed If exceedance stops, cease additional monitoring	Check monitoring report Check the Contractor's working method Discuss with the ES and the Contractor on possible remedial measures Advise the ER on effectiveness of proposed remedial measures Supervise implementation of remedial measures	Notify the Contractor Ensure remedial measures are properly implemented Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the works in the case of a serious non- conformity until situation rectified.	Amend working methods Rectify damage and undertake any necessary replacement

Note: (1) ET - Environmental Team, IEC - Independent Environmental Checker; (2) According to EM&A Manual Table 5.4.

# Event / Action Plan for Construction/Operational Phase for Ecology Issues (Landscape and Visual)

Action Level	<b>ET</b> <sup>(1)</sup>	<b>IEC</b> <sup>(1)</sup>	<b>ER</b> <sup>(1)</sup>	Contractor
Non-conformity on one occasion	<ol> <li>Identify Source</li> <li>Inform the IEC and the ER</li> <li>Discuss remedial actions with the IEC, the ER and the Contractor</li> <li>Monitor remedial actions until rectification has been completed</li> </ol>	<ol> <li>Check report</li> <li>Check the Contractor's working method</li> <li>Discuss with the ET and the Contractor on possible remedial measures</li> <li>Advise the ER on effectiveness of proposed remedial measures.</li> <li>Check implementation of remedial measures.</li> </ol>	1. Notify Contractor 2. Ensure remedial measures are properly implemented	<ol> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ol>
Repeated Non- conformity	<ol> <li>Identify Source</li> <li>Inform the IEC and the ER</li> <li>Increase monitoring frequency</li> <li>Discuss remedial actions with the IEC, the ER and the Contractor</li> <li>Monitor remedial actions until rectification has been completed</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol> <li>Check monitoring report</li> <li>Check the Contractor's working method</li> <li>Discuss with the ET and the Contractor on possible remedial measures</li> <li>Advise the ER on effectiveness of proposed remedial measures</li> <li>Supervise implementation of remedial measures.</li> </ol>	1. Notify the Contractor 2. Ensure remedial measures are properly implemented	<ol> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ol>

Note: (1) ET - Environmental Team, IEC - Independent Environmental Checker; (2) According to EM&A Manual Table 6.4.

# Event / Action Plan for Construction Phase for Heritage Issue

<b>Action Level</b>	<b>ET</b> <sup>(1)</sup>	<b>IEC</b> <sup>(1)</sup>	<b>ER</b> <sup>(1)</sup>	Contractor
Non-conformity on one occasion	<ol> <li>Identify Source</li> <li>Inform the IEC and the ER</li> <li>Discuss remedial actions with the IEC, the ER and the Contractor</li> <li>Monitor remedial actions until rectification has been completed</li> </ol>	4 Advise the FR on effectiveness of proposed remedial measures	<ol> <li>Notify Contractor</li> <li>Ensure remedial measures are properly implemented</li> </ol>	<ol> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ol>
Repeated Non- conformity	Contractor	<ol> <li>Check monitoring report</li> <li>Check the Contractor's working method</li> <li>Discuss with the ES and the Contractor on possible remedial measures</li> <li>Advise the ER on effectiveness of proposed remedial measures</li> <li>Supervise implementation of remedial measures.</li> </ol>	<ol> <li>Notify the Contractor</li> <li>Ensure remedial measures are properly implemented</li> </ol>	<ol> <li>Amend working methods</li> <li>Rectify damage and undertake any necessary replacement</li> </ol>

(2) According to EM&A Manual Table 7.

# **Appendix F1 Equipment Calibration Certificates (Noise Monitoring)**

oise womtoring Equipment Record						
Monitoring Date	Model	Equipment	Serial No.			
07 Feb 2023	CEL-63X Series	Sound Level Meter	1488314			
07 Feb 2023	CEL-120/1	Sound Calibrator	5230758			
	CEL-63X Series	Sound Level Meter	1488300			
14 Feb 2023	CEL-120/1	Sound Calibrator	2383886			
04 Eab 0000	CEL-63X Series	Sound Level Meter	1488271			
21 Feb 2023	CEL-120/1	Sound Calibrator	2383707			
28 Feb 2023	CEL-63X Series	Sound Level Meter	1488314			
	CEL-120/1	Sound Calibrator	5230758			

# **Noise Monitoring Equipment Record**





FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212769CA222517(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.	;	1488314	0339	002712
Equipment ID	:	N/A		
Next Calibration Date	:	25-Oct-2023		
Specification Limit	:	EN 61672-1: 2003 Class	s 1	

#### Laboratory Information

NS

Details of Reference	E	quipment -				
Description	:	Acoustic Multifunction Calibrato	г			
Equipment ID.	1	R-108-1				
Date of Receipt	;	25-Oct-2022				
Date of Calibration	:	26-Oct-2022				
Calibration Location	;	Calibration Laboratory of FTS		Ambient Temperature	2	20±2 °C
Method Used	÷	By direct comparison		Relative Humidity	0	<80% R.H.

#### Calibration Results :

Parameters		Mean Value (dB) Specific		fication Limit(dB	
	4000Hz	-0.1	2.6	to	-0.6
	2000Hz	0.8	2.8	to	-0.4
A-weigthing	1000Hz	-0.1	1.1	to	-1.1
frequency	500Hz	-3.4	-1.8	to	-4.6
response	250Hz	-8.8	-7.2	to	-10.0
	125Hz	-16.2	-14.6	to	-17.6
	63Hz	-26.2	-24.7	to	-27.7
Differential level linearity	94dB-104dB	0.1		± 0.6	5
	104dB-114dB	0.0		± 0.6	5

#### 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 unit under test and the values measured at the time of the test. 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.

Date : 31-10-201 Certified by : \_\_\_\_\_\_ Date : 31-10-2010 Leung Kwok Tai (Assistant Manager) Checked by : \_\_\_\_\_\_ CA-R-297 (22/07/2009) \*\* End of Report \*\*

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. T +852 2450 8233 | F +852 2450 6138 | E mattlab@fugro.com | W fugro.com

GEN01/0819

Tugro

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212769CA220999

Page 1 of 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 Manufacturer		Sound Level Meter		
Manufacturer	<u></u>	Casella Meter	Microphone	Preamplifier
Model No.	14	CEL-63X	CE-251	the second s
	- 38 L	GEL-03A	0E-201	CEL-495
Serial No.	1	1488300	05011	002110
Equipment ID	1	N/A		
Next Calibration Date	2	06-May-2023		
Specification Limit	-	EN 61672-1: 2003 Cla	iss 1	

#### Laboratory Information

Details of Reference Equipment -

Description	-	B & K Acoustic Multifunction Cal	ibrator 4226 (Traditional fr	ree	field setting)
Equipment ID.	:	R-108-1			0.7
Date of Calibration	\$	07-May-2022			
Calibration Location	1.2	Calibration Laboratory of FTS	Ambient Temperature	\$	20±2 °C
Method Used		By direct comparison	Relative Humidity		<80% R H

#### Calibration Results :

Parame	ters	Mean Value (dB)	Specific	ation	Limit(dB)
	4000Hz	-0.2	2.6	to	-0.6
	2000Hz	0.9	2.8	to	-0.4
A-weigthing	1000Hz	0.1	1.1	to	-1.1
frequency	500Hz	-3.1	-1.8	to	-4.6
response	250Hz	-8.5	-7.2	to	-10.0
	125Hz	-16.0	-14.6	to	-17.6
	63Hz	-26.1	-24.7	to	-27.7
Differential level linearity	94dB-104dB	0.0		± 0.6	3
	104dB-114dB	0.0	± 0.6		5

#### 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 tranportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Checked by :	_ Date : _	13-5-2022	Certified by : _	Kittenne	Date :	13-5-2022
CA-R-297 (22/07/2009)			Leung K	wok Tai (Assistan	t Manager	r)
		** E	ind of Report **	V		

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. T +852 2450 8233 | F +852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819

-fugro

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212769CA230175

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	1	Sound Level Meter		
Manufacturer	2	Casella		
		Meter	Microphone	Preamplifier
Model No.	:	CEL-63X	CE-251	CEL-495
Serial No.	:	1488271	04005	003036
Equipment ID	;	N/A		
Next Calibration Date	:	20-Jan-2024		
Specification Limit	:	EN 61672-1: 2003 Class	:1	
Laboratory Information	1			
Details of Reference Equ	uipme	ent -		
Description : E	3 & K	Acoustic Multifunction Ca	alibrator 4226 (Tra	aditional free field setting)
	R-108			in the field botting/

Date of Receipt UUT :	17-Jan-2023			
Date of Calibration :	21-Jan-2023			
Calibration Location :	Calibration Laboratory of FTS	Ambient Temperature	:	20±2 °C
Method Used :	By direct comparison	Relative Humidity	5	<80% R.H.

#### Calibration Results :

Parameters		Mean Value (dB)	Specification Limi		Limit(dB)
	4000Hz	1.4	2.6	to	-0.6
	2000Hz	1.3	2.8	to	-0.4
A-weigthing	1000Hz	0.0	1.1	to	-1.1
frequency	500Hz	-3.4	-1.8	to	-4.6
response	250Hz	-8.8	-7.2	to	-10.0
	125Hz	-16.2	-14.6	to	-17.6
	63Hz	-26.2	-24.7	to	-27.7
Differential level linearity	94dB-104dB	0.0		± 0.6	
	104dB-114dB	0.0		± 0.6	

#### Remarks :

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 unit under test and the values measured at the time of the test. Any uncertainties will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during tranportation, overloading, mis-handling or the capability of any other laboratory to repeat the measurement.

Date : 3-2-203 Certified by : <u>F.J.Juura</u> Date : <u>3-2-2003</u> Leung Kwok Tai (Assistant Manager) Checked by : CA-R-297 (22/07/2009) \*\* End of Report \*\*

The copyright of this report is awned by Fugro Technical Services Limited. This report shall not be reproduced except in full. T +852 2450 8233 | F +852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819





FUGRO TECHNICAL SERVICES LIMITED Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Page 1 of 1

Report no.: 212769CA222024(1) CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

## Client Supplied Information

Client Supplied Information						
Client : Materialab Consultants Ltd.						
Project : Calibration Se	vices					
Details of Unit Under T	st, UUT					
Description	: Sound Calibrator					
Manufacturer	: Casella (Model CEL-120/1)					
Serial No.	: 2383707					
Equipment ID	: N/A					
Next Calibration Date	25-Aug-2023					
Specification Limit	EN 60942: 2003 Class 1					
Laboratory Information						
Details of Calibration Equipment						
Description :	Reference Sound level meter					
Equipment ID. :	R-119-2					
Date Receipt of UUT :	22-Aug-2022					
Date of Calibration :	26-Aug-2022					
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	-0.3 dB	±0.4dB	
114dB	-0.1 dB	±0.40B	

#### 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 equipment under test does comply 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.

Date : 8-9-2077 Certified by : <u>KAYeung</u> Date : <u>10 - 9 - 70</u> Leung Kwok Tai (Assistant Manager) \*\* End of Report \*\* Checked by : CA-R-297 (22/07/2009)

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. T + 852 2450 8233 | F + 852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819

IGRA





FUGRO TECHNICAL SERVICES LIMITED Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212769CA221498

Page 1 of 1

# CALIBRATION CERTIFICATE OF SOUND CALIBRATOR

Client : Fugro Technical Services Ltd. Project : Calibration Services

#### Client Supplied Information

Details of Unit Under	Te	st, UU	т
Description		: S	ound Calibrator
Manufacturer		: 0	asella (Model CEL-120/1)
Serial No.		: 2	383886
Equipment ID		: N	I/A
Next Calibration Date	:	26-J	un-2023
Specification Limit	:	ENE	0942: 2003 Class 1

#### Laboratory Information

#### **Details of Calibration Equipment**

Description :	Reference Sound level meter	
Equipment ID. :	R-119-2	
Date of UUT receipt :	23-Jun-2022	
Date of Calibration :	27-Jun-2022	
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	10.110	
114dB	0.0 dB	±0.4dB	

#### 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. A general inspection of the item has been carried out and found the item is in good working conditions.
- The result reported on this certificate apply only to the unit under test as received. Fugro has not been responsible for the sampling stage

Date : 12-7-2022 Certified by :\_ AN Checked by :\_ 17. Jeung Date: 12-7-2022 CA-R-297 (22/07/2009) Leung Kwok Tai (Assistant Manager) \*\* End of Report \*\*

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced axcept in full. T +852 2450 8233 | F +852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819





FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report no.: 212736CA221775 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		: Acoustic Calibrator		
Manufacturer		: Casella (Model CEL-120/1)		
Serial No.		: 5230758		
Equipment ID		: N/A		
Next Calibration Date	:	27-Jul-2023		
Specification Limit	:	EN 60942: 2003 Class 1		

#### Laboratory Information

Details of Calibration	Equipment	
Description :	Reference Sound level meter	
Equipment ID. :	R-119-2	
Date of UUT receipt :	25-Jul-2022	
Date of Calibration :	28-Jul-2022	
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	-0.2 dB	±0.4dB	
114dB	0.2 dB	±0.40B	

#### 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. A general inspection of the item has been carried out and found the item is in good working conditions. 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 will not include allowances for the environmental changes,

variation and shock during transportation, or the capability of any other laboratory to repeat the

Checked by :	Date : 1-8-2022 Certified by : 67 Jourg Date : 2-8-2022
CA-R-297 (22/07/2009)	Leung Kwok Tai (Asśistant Manager)
	** End of Report **

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. T +852 2450 8233 | F +852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819

IGRO



Appendix F2 Equipment Calibration Certificates (Water Quality Monitoring)





FUGRO TECHNICAL SERVICES LIMITED Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report No.: 142626WA222629

# 

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	:	13/F, Fugro House – KCC2, No. 1 Kwai On Road, Kwai Chung, N.T., H.K.		
Sample description	•	One YSI EXO-3 Multi-parameter Water Quality Meter		
Client sample ID	1	Serial No. 19E100634		
Test required	:	Calibration of the YSI EXO-3 Multi-parameter Water Quality Meter		
Laboratory Information				
Lab. sample ID	:	WA222629/1		
Date sample received	:	05/12/2022		
Date of calibration	:	30/12/2022		
Next calibration date	2	29/03/2023		
Test method used	i	In-house comparison method		

Note : This report refers only to the sample(s) tested and the result(s) applied to the sample(s) as received.

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. **T** +852 2450 8233 | **F** +852 2450 6138 | **E** matlab@fugro.com | **W** fugro.com

GEN01/0819



**FUGRO** 

# **FUGRO**

FUGRO TECHNICAL SERVICES LIMITED Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report No.: 142626WA222629

#### Page 2 of 3

## **Results**:

#### A. pH calibration

pH reading at 25°C for Q.C. solution(6.86) and at 25°C for Q.C. solution(9.18)					
Theoretical	Measured	Deviation			
9.18	9.12	-0.06			
6.86	6.94	+0.08			

## **B. Salinity calibration**

	Salinity, ppt						
Theoretical	Theoretical Measured Deviation						
1	0.97	-0.03	± 0.1				
10	9.93	-0.07	± 0.5				
20	19.99	-0.01	± 1.0				
30	29.97	-0.03	± 1.5				
40	40.02	+0.02	± 2.0				

## C. Dissolved Oxygen calibration

Trial No.	Dissolved oxygen content, mg/L			
	By Titration	By D.O. meter		
1	8.81	8.71		
2	8.44	8.63		
3	8.56	8.63		
Average	8.60	8.66		

Differences of D.O. Content between Wrinkler 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

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full.

T +852 2450 8233 | F +852 2450 6138 | E matlab@fugro.com | W fugro.com

GEN01/0819

# Tugro

FUGRO TECHNICAL SERVICES LIMITED Fugro Development Centre 5 Lok Yi Street, Tai Lam Tuen Mun, NT Hong Kong

Report No.: 142626WA222629

#### Page 3 of 3

## **Results** :

## D. Temperature calibration

Thermometer reading, °C	Meter reading, °C
20.0	19.8

#### E. Turbidity calibration

	Turbidity, N.T.U.					
Theoretical	Measured	Measured Deviation				
4	4.13	+0.13	± 0.6			
8	8.37	+0.37	± 0.8			
40	39.84	-0.16	± 3.0			
80	79.50	-0.05	± 4.0			

Certified by Approved Signatory : HO Kin Man, John Assistant General Manager - Laboratories 19/1/2023 Date \*\* End of Report \*\*

Note : This report refers only to the sample(s) tested and the result(s) applied to the sample(s) as received.

The copyright of this report is owned by Fugro Technical Services Limited. This report shall not be reproduced except in full. **T** +852 2450 8233 | **F** +852 2450 6138 | **E** matlab@fugro.com | **W** fugro.com

GEN01/0819



# Appendix G Environmental Monitoring Schedule

# **Impact Monitoring Schedule (February 2023)**

		<b>`</b>		<u>'</u>		
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
				w		w
5	6	7	8	9	10	11
		W & N		w		w
12	13	14	15	16	17	18
		W & N		w		w
19	20	21	22	23	24	25
		W & N		w		w
26	27	28				
		W & N				

# **Tentative Impact Monitoring Schedule (March 2023)**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2	3	4
				w		w
5	6	7	8	9	10	11
		W & N		w		w
12	13	14	15	16	17	18
		W & N		w		w
19	20	21	22	23	24	25
		W & N		w		w
26	27	28	29	30	31	
		W & N		w		

# **Tentative Impact Monitoring Schedule (April 2023)**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
						w
2	3	4	5	6	7	8
		W & N		w		w
9	10	11	12	13	14	15
		W & N		w		w
16	17	18	19	20	21	22
		W & N		w		w
23/30	24	25	26	27	28	29
		W & N		w		w

# **Tentative Impact Monitoring Schedule (May 2023)**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
		W & N		w		w
7	8	9	10	11	12	13
		W & N		w		w
14	15	16	17	18	19	20
		W & N		w		w
21	22	23	24	25	26	27
		W & N		w		w
28	29	30	31			
		W & N				

## Remarks

1. W: Impact Water Quality Monitoring.

2. N: Impact Noise Monitoring.

3. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition, etc.



Monitoring Lo	cation :	NSR1 Columbarium of Po Lin Monastery				
Data	Weather	Wind Speed Start Time —		Noise Monitoring (in dB(		dB(A))
Date	weather	(m/s)	Start Time	Leq(30 min)	L90 <sub>(30 min)</sub>	L10 <sub>(30 min)</sub>
07-02-2023	Cloudy	1.4	10:40	64.6	58.0	66.5
14-02-2023	Fine	0.4	12:10	63.2	61.0	65.5
21-02-2023	Fine	0.9	11:44	65.4	60.5	69.0
28-02-2023	Fine	0.6	10:46	63.4	61.5	66.5
Monitoring Lo	cation :	NSR5 Village H	louse No. 49	A		
Data	Weather	Wind Speed	Ctart Times	Noise M	lonitoring (in	dB(A))
Date	weather	(m/s)	Start Time –	Leq <sub>(30 min)</sub>	L90 <sub>(30 min)</sub>	L10 <sub>(30 min)</sub>
07-02-2023	Cloudy	1.6	10:06	59.4	56.5	61.0
14-02-2023	Fine	0.3	10:05	60.3	58.0	62.0
21-02-2023	Fine	0.5	10:29	60.2	55.5	62.0
28-02-2023	Fine	0.6	10:11	63.8	60.5	66.5
Monitoring Lo	cation :	NSR8 Village H	louse No. 34			
Data	Weather	Wind Speed	Ctart Times	Noise M	lonitoring (in	dB(A))
Date	Weather	(m/s)	Start Time	Leq <sub>(30 min)</sub>	L90 <sub>(30 min)</sub>	L10 <sub>(30 min)</sub>
07-02-2023	Cloudy	1.8	9:28	56.2	53.0	58.5
14-02-2023	Fine	0.2	9:00	56.1	54.0	57.0
21-02-2023	Fine	0.5	9:38	53.0	42.5	55.0
28-02-2023	Fine	1.1	9:26	50.2	48.0	53.5

# **Appendix H1 Noise Monitoring Data and Graphical Presentations**

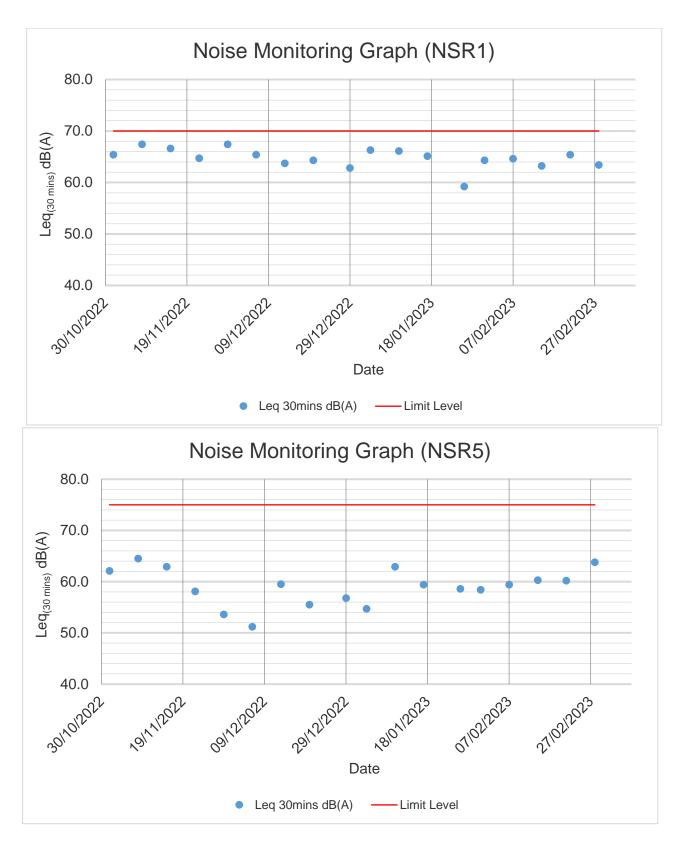
Noise Monitoring (in dB(A))		
Min	Max	
Leq <sub>(30 min)</sub>	Leq <sub>(30 min)</sub>	
63.2	65.4	
59.4	63.8	
50.2	56.2	
	Min Leq <sub>(30 min)</sub> 63.2 59.4	

# **Remarks:**

1) NSR1 & NSR5 noise results were calculated by +3 dB (A) correction for free-field measurement.

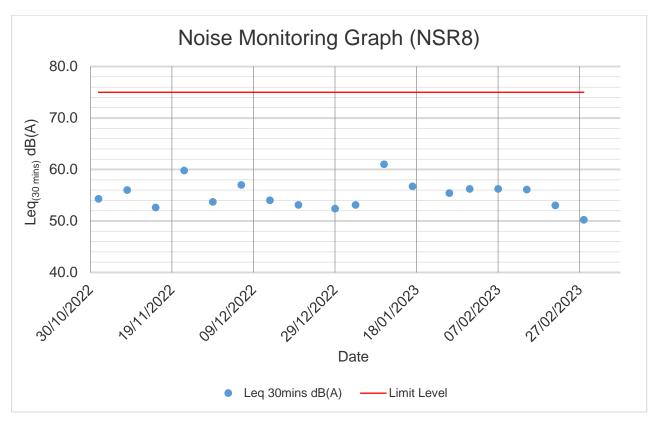
TUGRO





UGRO





Note:

- 1) Major activities being carried out on site during the reporting period refer to section 1.4.
- 2) The other factors influencing the monitoring results refer to section 5.5.3.
- 3) The QA/QC procedures and detection Limits refer to section 5.1 and 5.2.

**Appendix H2 Water Quality Monitoring Data and Graphical Presentations** 



#### Drainage Improvement Works at Ngong Ping Monthly EM&A Report

### **Monitoring Results Summary**

Parameter(s)			DO in	mg/	L			٦	Furbidity	in N	ITU				р	н				Suspe	ended So	olids	in mg/L	
Station(s)	Min	-	Max	(	Mean	)	Min	-	Max	(	Mean	)	Min	-	Мах	(	Mean	)	Min	-	Max	(	Mean	)
WS1-R1																								
WS1-I1	8.36	-	9.76	(	8.98	)	1.10	-	1.50	(	1.28	)	6.80	-	6.90	(	6.82	)	1.00	-	1.00	(	1.00	)
WS1-R2	8.27	-	9.72	(	8.95	)	0.97	-	1.70	(	1.39	)	6.70	-	6.80	(	6.78	)	1.00	-	2.00	(	1.08	)
WS1-I2																								
WS4-R3																								
WS4-I3																								
WS5-R4	8.80	-	8.80	(	8.80	)	2.00	-	2.00	(	2.00	)	7.00	-	7.00	(	7.00	)	1.00	-	1.00	(	1.00	)
WS5-I4																								
WS6-R5																								
WS6-I5																								
WS6-C1	5.08	-	8.82	(	6.66	)	1.00	-	4.20	(	1.48	)	6.10	-	7.50	(	6.92	)	1.00	-	6.50	(	1.75	)
WS6-R6																								
WS6-I6																								

# Laboratory Duplicate, Quality Assurance/Quality Control Summary extract form Lab test report

		То	tal suspended solids	dried at 103°C -	- 105°C	
Sampling Date	Detection	Blank	Spike recovery	Original	Duplicate	RPD%
	Limit		(%)	result	result	
02/02/2023	1mg/L	<1	97.45	2.75	2.70	1.83
04/02/2023	1mg/L	<1	98.05	0.94	0.88	6.59
07/02/2023	1mg/L	<1	98.18	0.56	0.49	13.33
09/02/2023	1mg/L	<1	101.48	0.98	0.91	7.41
11/02/2023	1mg/L	<1	99.90	0.72	0.68	5.71
14/02/2023	1mg/L	<1	98.15	1.02	1.00	1.98
16/02/2023	1mg/L	<1	102.85	1.12	1.22	8.55
18/02/2023	1mg/L	<1	100.43	0.58	0.53	9.01
21/02/2023	1mg/L	<1	98.90	6.20	6.70	7.75
23/02/2023	1mg/L	<1	99.45	1.60	1.46	9.15
25/02/2023	1mg/L	<1	100.66	1.58	1.44	9.41
28/02/2023	1mg/L	<1	95.85	0.74	0.68	8.45

## Parameter Exceedance Summary

Monitoring	Monitoring	Exceedance	Monitoring	Action	Limit	Project-
Date	Location	Parameter	Results	Level(AL)	Level(LL)	related?

# **Monitoring Location Dried up Summary**

Date / Location	WS1-R1	WS1-I1	WS1- R2	WS1-I2	WS4-R3	WS4-I3	WS5-R4	WS5-14	WS6-R5	WS6-15	WS6- C1	WS6-R6	WS6-16
2 Feb	Dried			Dried		Dried	Dried						
2023	Up			Up		Up	Up						
4 Feb	Dried			Dried	Dried	Dried		Dried	Dried	Dried		Dried	Dried
2023	Up			Up	Up	Up		Up	Up	Up		Up	Up
7 Feb	Dried			Dried		Dried	Dried						
2023	Up			Up		Up	Up						
9 Feb	Dried			Dried		Dried	Dried						
2023	Up			Up		Up	Up						
11 Feb	Dried			Dried		Dried	Dried						
2023	Up			Up		Up	Up						
14 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						
16 Feb	Dried			Dried		Dried	Dried						
2023	Up			Up		Up	Up						
18 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						
21 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						
23 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						
25 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						
28 Feb	Dried	Dried		Dried		Dried	Dried						
2023	Up	Up		Up		Up	Up						

Note:

1) Major activities being carried out on site during the reporting period refer to section 1.4.

2) The other factors influencing the monitoring results refer to section 5.5.4.

3) The QA/QC procedures and detection Limits refer to section 5.1 and 5.2.



				ے							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	p	Н	Salinit	y (ppt)	Tempera	ture (ºC)	DO Satur	ation (%)	DO (r	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
-				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			11:06	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				0	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			11:18	15	1	6.86	6.8	0.02	0.02	16.89	16.9	93.6	93.4	9.06	9.04	1.14	1.1	<1	1.0	NA
					2	6.83		0.02		16.87		93.2		9.02		1.12		<1		
WS1-R2			11:31	17	1	6.82	6.8	0.02	0.02	16.93	16.9	92.9	92.8	9.00	8.99	1.02	1.0	2	2.0	NA
			-		2	6.80		0.02		16.91		92.6		8.98		1.01	-	2	-	
WS1-I2			11:43	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			11:52	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA NA		NA NA		NA NA		NA NA		NA NA		NA NA		NA NA		
WS4-I3			12:07	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2 1	NA		NA		NA		NA		NA		NA		NA		
WS5-R4	02-02-23	Fine	12:24	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS5-14			12:36	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				_	1	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			12:48	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-15			40.00	0	1	NA	NA	NA	NA	NA	NA	NA	NIA	NA	NA	NA	NA	NA	NIA	
VV 56-15			13:03	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-C1			13:20	17	1	7.11	7.1	0.14	0.14	18.88	18.9	76.4	76.3	7.10	7.09	1.09	1.1	3	3.0	NA
W30-CT			13:20	17	2	7.08	7.1	0.14	0.14	18.85	10.9	76.2	10.3	7.07	7.09	1.06	1.1	3	3.0	NA
WS6-R6			13:33	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W00-IN0			10.00	0	2	NA		NA	19/5	NA	NA	NA	11/1	NA		NA	11/1	NA	11/2	Lack of Sulace Rullon
WS6-I6			13:47	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	р	н	Salinit	y (ppt)	Tempera	ture (ºC)	DO Satur	ation (%)	DO (r	mg/L)	Turbidity	y (NTU)	Total suspe dried at 103 mg		Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			8:36	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			8:48	14	1	6.83	6.8	0.02	0.02	15.82	15.8	92.6	92.5	9.78	9.76	1.15	1.1	<1	1.0	NA
					2	6.81		0.02		15.79		92.3		9.74		1.11		<1		
WS1-R2			9:03	16	1	6.78 6.76	6.8	0.02	0.02	15.80 15.77	15.8	92.3 92.0	92.2	9.73 9.71	9.72	0.98	1.0	<1 <1	1.0	NA
					2	6.76 NA		0.02 NA		15.77 NA				9.71 NA		0.95 NA				
WS1-I2			9:17	0	2	NA	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			9:28	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			0.40		1	NA		NA	NA	NA	NA	NA		NA		NA	NA	NA		
WS4-I3			9:46	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS5-R4	04-02-23	Cloudy	10:02	15	1	7.01	7.0	0.03	0.03	17.64	17.6	92.4	92.3	8.81	8.80	2.00	2.0	<1	1.0	NA
W35-R4	04-02-23	Cloudy	10.02	15	2	7.02	7.0	0.03	0.03	17.62	17.0	92.1	92.5	8.78	0.00	1.98	2.0	<1	1.0	NA
WS5-14			10:15	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			10.10	ů	2	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			10:27	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-I5			10:44	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA 7.07		0.12		NA 17.62		75.8		7.07		NA 1.11		NA <1		
WS6-C1			11:01	16	2	7.07	7.1	0.12	0.12	17.62	17.6	75.8	75.7	7.07	7.05	1.11	1.1	<1	1.0	NA
					1	7.05 NA		NA		NA		NA NA		7.03 NA		NA		NA		
WS6-R6			11:16	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
14/00 10			44.07	0	1	NA	NIA	NA	NIA	NA		NA		NA	NIA	NA	NIA	NA	NIA	
WS6-I6			11:27	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ے							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	р	н	Salinit	y (ppt)	Tempera	ture (⁰C)	DO Satur	ation (%)	DO (r	mg/L)	Turbidity	y (NTU)	Total suspe dried at 103 mg	8 - 105 (⁰C),	Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:32	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:48	13	1	6.86	6.8	0.02	0.02	17.65	17.6	91.7	91.6	8.77	8.75	1.12	1.1	<1	1.0	NA
					2	6.83		0.02		17.62		91.5		8.73		1.10		<1		
WS1-R2			9:06	18	1	6.85 6.82	6.8	0.02	0.02	17.28 17.25	17.3	91.9 91.6	91.8	8.83 8.81	8.82	1.23	1.2	<1 <1	1.0	NA
					2	0.82 NA		0.02 NA		NA		91.6 NA		8.81 NA		NA		<1 NA		
WS1-I2			9:24	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			9:42	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
14/04/10			0.54	0	1	NA	NA	NA	NIA	NA	NA	NA	NA	NA	NA	NA	NIA	NA	NIA	
WS4-I3			9:54	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS5-R4	07-02-23	Cloudy	10:15	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W33-I(4	07-02-23	Cloudy	10.15	0	2	NA		NA	11/5	NA	11/4	NA	IN/A	NA	INA.	NA	IN/A	NA	IN/A	Lack of Sulace Rullon
WS5-14			10:28	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			10.20	ů	2	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			10:43	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-I5			10:56	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	6.87		0.14		17.86		54.0		5.09		1.05		NA <1		
WS6-C1			11:18	15	2	6.85	6.9	0.14	0.14	17.83	17.8	53.8	53.9	5.09	5.08	1.03	1.0	<1	1.0	NA
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-R6			11:33	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WCC IC			11.10	0	1	NA	NIA	NA	NIA	NA	NIA	NA	NIA	NA	NIA	NA	NIA	NA	NIA	Look of Orford Drug ff
WS6-16			11:49	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	н	Salinit	y (ppt)	Tempera	ture (⁰C)	DO Satu	ation (%)	DO (	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg	3 - 105 (°C),	Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:31	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
_					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:46	13	1	6.79	6.8	0.02	0.03	17.34	17.3	90.7	90.6	8.67	8.65	1.49	1.5	<1	1.0	NA
					2	6.80		0.03		17.35		90.4		8.62		1.52		<1		
WS1-R2			10:03	16	1	6.85 6.82	6.8	0.02	0.02	17.47 17.48	17.5	91.0 91.2	91.1	8.69 8.71	8.70	1.67 1.73	1.7	<1 <1	1.0	NA
					1	0.02 NA		0.02 NA		NA		91.2 NA		NA		NA		NA		
WS1-I2			10:18	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W04 D0			40.04	0	1	NA	NIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NIA	
WS4-R3			10:34	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-13			10:48	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
104-15			10.40	Ū	2	NA	IN/A	NA	11/4	NA	IN/A	NA	IN/A	NA	114	NA	114	NA	11/4	
WS5-R4	09-02-23	Cloudy	11:02	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
		,		-	2	NA		NA		NA		NA		NA		NA		NA		
WS5-14			11:17	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA NA		NA		NA		
WS6-R5			11:33	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-I5			11:47	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-C1			10.01	45	1	7.06	7.1	0.15	0.15	18.00	18.0	68.1	67.8	6.43	6.40	1.00	1.0	<1	1.0	NA
VV 50-U1			12:01	15	2	7.04	7.1	0.15	0.15	18.01	18.0	67.5	07.0	6.37	0.40	0.99	1.0	<1	1.0	NA
WS6-R6			12:13	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			.2.10	Ŭ	2	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			12:26	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	р	н	Salinit	y (ppt)	Tempera	ture (ºC)	DO Satur	ation (%)	DO (r	mg/L)	Turbidity	/ (NTU)	Total suspe dried at 103 mg		Remarks
-				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:26	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:40	16	1	6.87	6.9	0.02	0.02	19.87	19.9	92.0	91.9	8.38	8.36	1.48	1.5	<1	1.0	NA
					2	6.84		0.02		19.85		91.8		8.33		1.45		<1		
WS1-R2			9:53	18	1	6.83	6.8	0.02	0.02	19.76	19.7	91.6	91.5	8.29	8.27	1.35	1.3	1	1.0	NA
					2	6.80		0.02		19.72		91.3		8.25		1.31		1		
WS1-I2			10:07	0	2	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			10:21	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS4-I3			10:33	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
14/05 D.4	44.00.00	Fine	40.40	0	1	NA	NA	NA	NIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NIA	
WS5-R4	11-02-23	Fine	10:48	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS5-14			11:04	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W33-14			11.04	0	2	NA		NA	11/5	NA	INA	NA	IN/A	NA	INA.	NA	INA.	NA	11/5	Lack of Sulace Rullon
WS6-R5			11:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				0	2	NA		NA		NA		NA		NA		NA		NA		
WS6-I5			11:32	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-C1			11:46	15	1	6.89	6.9	0.12	0.12	19.03	19.0	59.0	58.9	5.47 5.44	5.46	1.11	1.1	<1	1.0	NA
					2	6.85 NA		0.12 NA		19.02 NA		58.7 NA		5.44 NA		1.08 NA		<1 NA		
WS6-R6			12:03	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			12:16	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	р	н	Salinit	y (ppt)	Tempera	ture (ºC)	DO Satur	ation (%)	DO (r	mg/L)	Turbidity	y (NTU)	Total suspe dried at 103 mg		Remarks
2				>		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:03	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				_	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:16	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA 6.82		NA 0.15		NA 17.83		NA 86.4		NA 8.31		NA 1.40		NA		
WS1-R2			9:32	15	2	6.83	6.8	0.15	0.16	17.83	17.8	86.0	86.2	8.27	8.29	1.46 1.51	1.5	<1 <1	1.0	NA
					1	NA		NA		NA		NA		NA		NA		NA		
WS1-I2			9:48	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-R3			10:02	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W34-K3			10.02	0	2	NA	INA	NA	INA	NA	INA	NA	NA	NA	INA	NA	NA	NA	INA	Lack of Surace Runon
WS4-13			10:16	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS5-R4	14-02-23	Fine	10:32	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA	-	NA		NA		NA		NA		NA		NA		
WS5-14			10:47	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			11:03	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-15			11:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
VV 50-15			11:17	0	2	NA	NA	NA	NA	NA	INA	NA	NA	NA	INA	NA	NA	NA	NA	Lack of Surace Runom
WS6-C1			11:32	14	1	6.95	7.0	0.22	0.23	17.92	17.9	69.9	69.7	6.62	6.60	1.47	1.5	<1	1.0	NA
					2	6.96		0.23	0.20	17.93		69.4	55.1	6.58	0.00	1.46		1		
WS6-R6			11:48	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			12:04	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	Н	Salinit	/ (ppt)	Tempera	ture (⁰C)	DO Satu	ration (%)	DO (	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:36	14	1	6.80	6.8	0.01	0.02	15.43	15.4	92.7	92.5	9.30	9.31	1.38	1.4	1	1.0	NA
					2	6.77		0.02		15.42		92.3		9.32		1.40		1		
WS1-R2			9:54	16	1	6.72 6.73	6.7	0.01	0.01	15.08 15.08	15.1	91.5 91.7	91.6	9.19 9.21	9.20	1.07	1.1	1	1.0	NA
					2	6.73 NA		0.01 NA		15.08 NA		91.7 NA		9.21 NA	-	NA		NA		
WS1-I2			10:09	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			10:17	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-13			10:31	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
1104-15			10.31	0	2	NA	INA	NA	INA	NA	INA	NA	INA	NA	NA	NA	NA	NA	IN/A	Lack of Sulace Runon
WS5-R4	16-02-23	Fine	10:44	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
1100 114	10 02 20	1 IIIO	10.44	Ŭ	2	NA	101	NA	1.0.1	NA	107	NA	107	NA	10/1	NA	107	NA	107	
WS5-14			10:59	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			11:14	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA	-	NA		NA		
WS6-I5			11:28	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	6.27		0.13		15.71		81.8		8.11		1.22		1		
WS6-C1			11:40	15	2	6.23	6.3	0.12	0.13	15.72	15.7	81.4	81.6	8.08	8.10	1.20	1.2	1	1.0	NA
WS6-R6			11:57	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W 30-R0			11.37	U	2	NA	INPA	NA	INA	NA	INPA	NA	INA	NA	INA	NA	INA	NA	IN/A	Lack of Sulace Runon
WS6-16			12:10	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	Н	Salinity	/ (ppt)	Tempera	ture (⁰C)	DO Satu	ration (%)	DO (	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			8:28	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			8:43	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-R2			8:58	17	2	6.83 6.80	6.8	0.01	0.01	15.93 15.91	15.9	95.3 95.0	95.2	9.42 9.39	9.41	1.62 1.60	1.6	<1 <1	1.0	NA
14/04/10			0.40		1	NA		NA		NA		NA		NA		NA		NA		
WS1-I2			9:13	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-R3			9:27	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W04-I\3			9.27	0	2	NA	11/4	NA	INA.	NA	11/4	NA		NA		NA	INA	NA		
WS4-13			9:42	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	2	NA		NA		NA		NA		NA		NA		NA		
WS5-R4	18-02-23	Fine	9:54	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS5-14			10:08	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			10:23	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-15			10:38	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W 30-13			10.30	0	2	NA	11/4	NA	INA.	NA	11/4	NA		NA		NA	INA	NA		
WS6-C1			10:54	16	1	6.92	6.9	0.09	0.09	15.62	15.6	61.6	61.5	6.13	6.11	1.16	1.1	<1	1.0	NA
					2	6.90		0.09		15.64		61.3		6.09		1.12		<1		
WS6-R6			11:12	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA NA		NA		NA		NA NA		NA		NA NA		NA NA		
WS6-I6			11:25	0	2	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA NA	NA	NA	NA	NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	н	Salinity	/ (ppt)	Tempera	ture (⁰C)	DO Satu	ration (%)	DO (	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:20	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
_					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:30	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-R2			9:43	16	2	6.83 6.82	6.8	0.01	0.01	16.06 16.04	16.1	91.9 91.5	91.7	9.06 9.02	9.04	1.48	1.6	<1 <1	1.0	NA
					1	NA		NA		NA		NA NA		NA		NA		NA		
WS1-I2			9:58	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-R3			10:08	0	1	NA	NIA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W 54-R3			10:08	0	2	NA	NA NA	NA	NA	NA	INA	NA	INA	NA	INA	NA	NA	NA	INA	Lack of Surace Runoff
WS4-13			10:19	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			10.10	Ű	2	NA		NA		NA		NA		NA		NA		NA		
WS5-R4	21-02-23	Fine	10:28	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS5-I4			10:38	0	2	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2 1	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			10:52	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-15			11:07	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
VV 56-15			11:07	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-C1			11:15	14	1	6.69	6.7	0.15	0.15	16.06	16.1	72.9	72.7	7.18	7.17	4.20	4.2	7	6.5	NA
			11.10	17	2	6.71	0.1	0.15	0.10	16.08	10.1	72.5	12.1	7.16		4.23	7.2	6	0.0	1973
WS6-R6			11:34	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			11:45	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	н	Salinit	y (ppt)	Tempera	ture (⁰C)	DO Satu	ration (%)	DO (	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
_				\$		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			10:02	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
_					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			10:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA	-	NA 0.47	-	NA	_	NA		
WS1-R2			10:32	16	1	6.71 6.73	6.7	0.01	0.01	15.91 15.89	15.9	92.6 92.8	92.7	9.17 9.19	9.18	1.62 1.64	1.6	<1 <1	1.0	NA
					2 1	0.73 NA		NA		15.89 NA		92.8 NA		9.19 NA		1.64 NA		NA		
WS1-I2			10:47	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
			44.00		1	NA		NA		NA		NA		NA		NA		NA		
WS4-R3			11:02	0	2	NA	NA –	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-13			11:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
1104-13			11.17	0	2	NA	INA.	NA	11/4	NA	11/4	NA	11/5	NA		NA	NA.	NA		Lack of Sulace Rullon
WS5-R4	23-02-23	Fine	12:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
	20 02 20	1 110			2	NA		NA		NA		NA		NA		NA		NA		
WS5-14			12:32	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			12:47	0	2	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					1	NA		NA		NA		NA		NA		NA		NA		
WS6-I5			13:03	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W00.04			11:00		1	7.47	7.5	0.04	0.04	17.60	17.6	92.0	00.0	8.81	0.00	1.43		1	4.5	
WS6-C1			11:32	14	2	7.50	7.5	0.04	0.04	17.55	17.0	92.3	92.2	8.83	8.82	1.40	1.4	2	1.5	NA
WS6-R6			11:47	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				0	2	NA		NA	117	NA	in A	NA		NA		NA	14/5	NA		
WS6-I6			12:02	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

4. Yellow Highlight equal to exceed Action Level

				ے							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	pl	н	Salinit	y (ppt)	Tempera	ture (⁰C)	DO Satu	ration (%)	DO (I	mg/L)	Turbidit	y (NTU)	Total suspe dried at 103 mg		Remarks
~				>		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:04	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
-				-	2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:17	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA 10.47		NA 0.1.7		NA		NA		NA		
WS1-R2			9:35	16	1	6.66 6.68	6.7	0.13	0.12	16.17 16.20	16.2	84.7 85.2	85.0	8.31 8.36	8.34	1.46 1.58	1.5	<1 <1	1.0	NA
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I2			9:51	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W04 D0			10:10	0	1	NA	NIA	NA		NA		NA	NA	NA	NA	NA	NIA	NA	NIA	
WS4-R3			10:10	0	2	NA	NA NA	NA	NA	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff	
WS4-13			10:24	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
104-15			10.24	0	2	NA	IN/A	NA	11/4	NA	110	NA	11/3	NA		NA	11/5	NA		
WS5-R4	25-02-23	Fine	10:38	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
		-		-	2	NA		NA		NA		NA		NA		NA		NA		
WS5-I4			10:54	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			11:10	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				-	1	NA		NA		NA		NA		NA		NA		NA		
WS6-15			11:26	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-C1			11:41	14	1	7.45	7.4	0.23	0.24	15.22	15.2	60.7	60.5	5.48	5.46	1.59	1.6	2	2.0	NA
W30-C1			11.41	14	2	7.43	7.4	0.24	0.24	15.23	15.2	60.2	00.5	5.44	5.40	1.62	1.0	2	2.0	NA
WS6-R6			11:56	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
				Ű	2	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			12:10	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

3. TBC: To Be Confirm

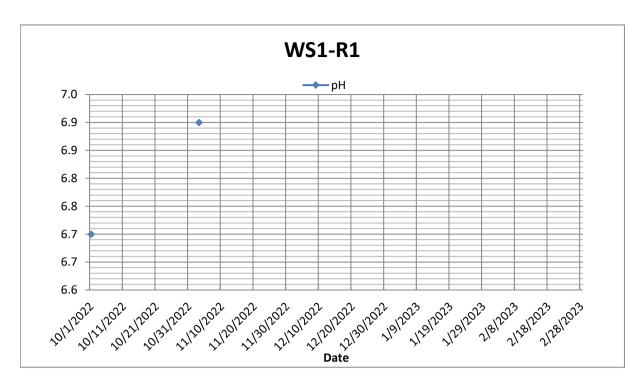
4. Yellow Highlight equal to exceed Action Level

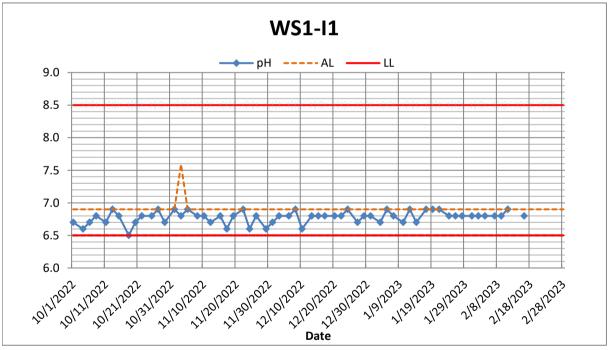
				ء							In-situ Me	asurement						Laborator	y Analysis	
Monitoring Location	Date	Weather	Time	Water Depth (cm)	Replicate	p	н	Salinit	y (ppt)	Tempera	ture (ºC)	DO Satur	ation (%)	DO (r	mg/L)	Turbidity	y (NTU)	Total suspe dried at 103 mg		Remarks
2				×		Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	
WS1-R1			9:30	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-I1			9:44	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS1-R2			10:03	16	1	6.82 6.83	6.8	0.01	0.01	14.12 14.13	14.1	92.0 91.7	91.9	9.46 9.44	9.45	1.53 1.61	1.6	1	1.0	NA
					1	NA		NA		NA		NA		NA NA		NA		NA		
WS1-I2			10:17	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS4-R3			10:31	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
W54-R3			10:31	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	INA	NA	NA	NA	NA	Lack of Surace Runoff
WS4-13			10:42	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
110110				Ű	2	NA		NA		NA		NA		NA		NA		NA		
WS5-R4	28-02-23	Fine	10:53	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS5-14			11:06	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff
					2 1	NA		NA		NA		NA		NA		NA		NA		
WS6-R5			11:18	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-15			44.04	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
VV S6-15			11:31	0	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
WS6-C1			11:44	14	1	6.12	6.1	0.07	0.07	13.88	13.9	64.6	64.5	6.58	6.56	1.53	1.5	<1	1.0	NA
					2	6.10	0.1	0.07	0.07	13.86	10.0	64.4	04.0	6.53	0.00	1.51	1.5	<1	1.0	
WS6-R6			11:57	0	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Lack of Suface Runoff
					2	NA		NA		NA		NA		NA		NA		NA		
WS6-I6			12:13	0	1	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	NA NA	NA	Lack of Suface Runoff

2. NA: Not Applicable

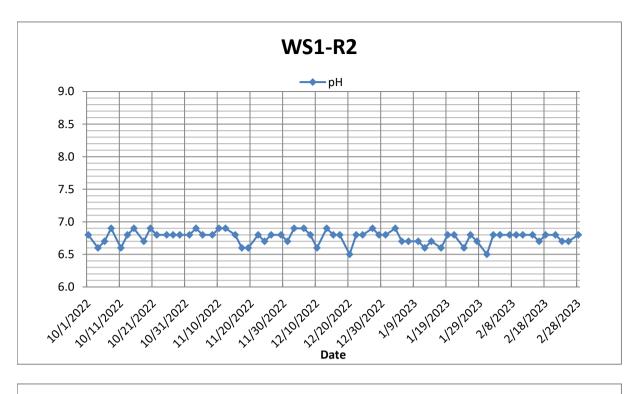
3. TBC: To Be Confirm

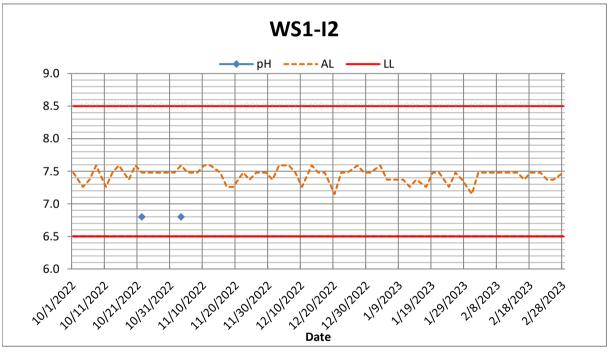
4. Yellow Highlight equal to exceed Action Level



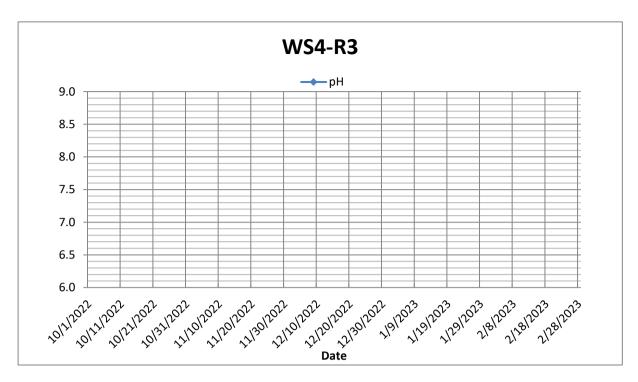


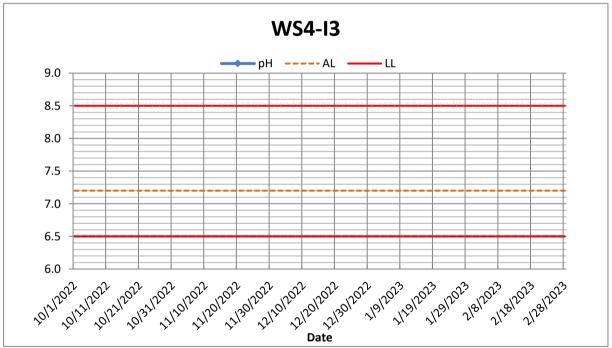




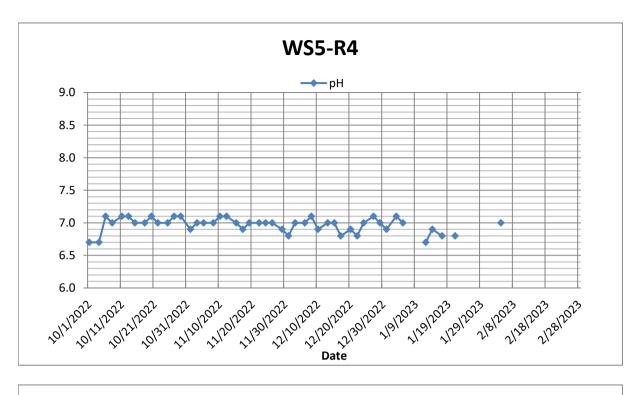


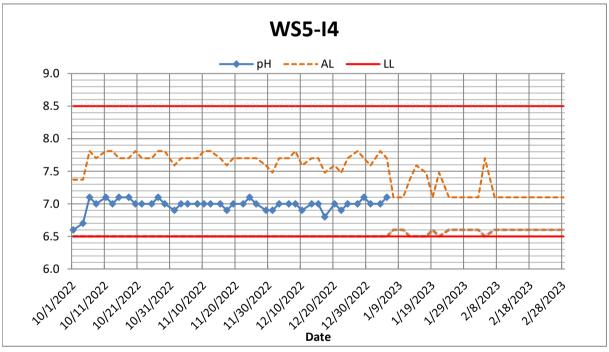




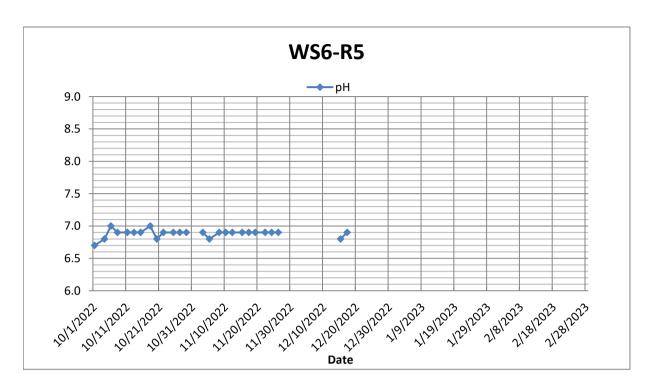


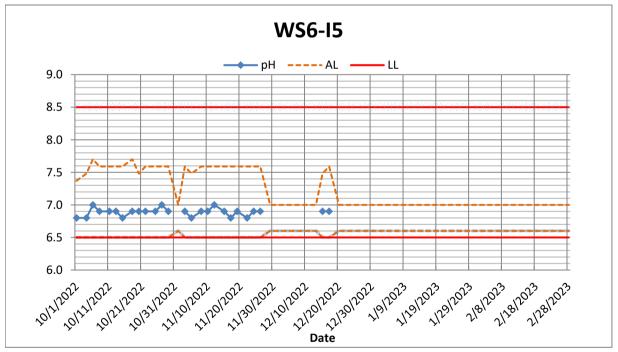




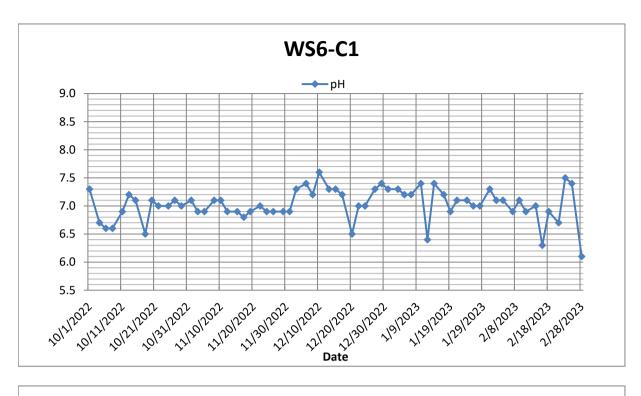


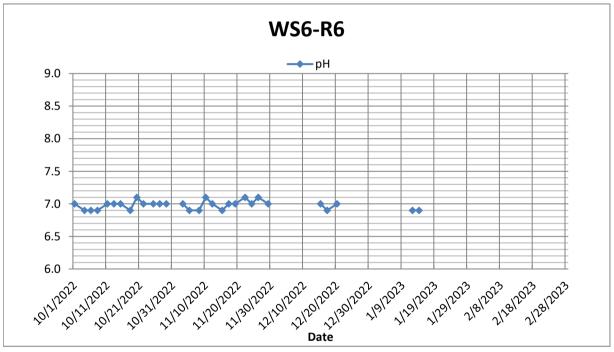




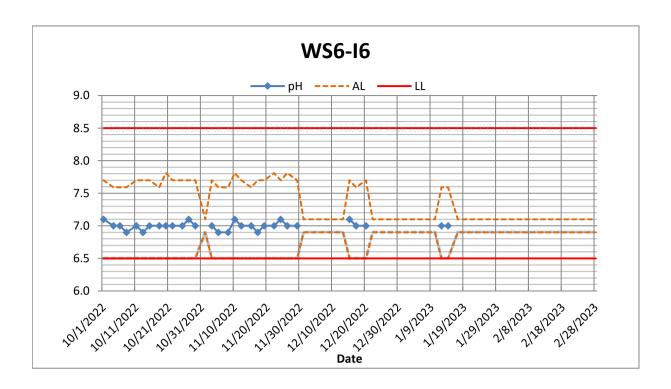




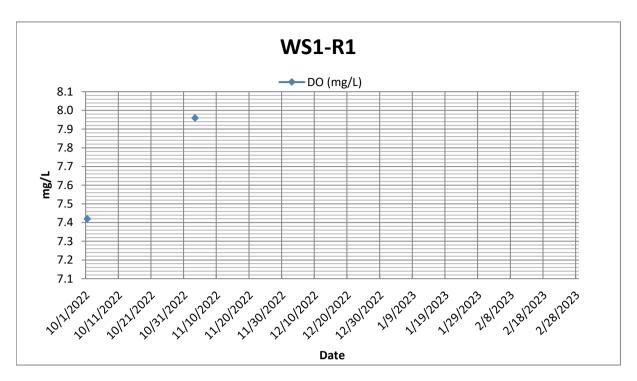


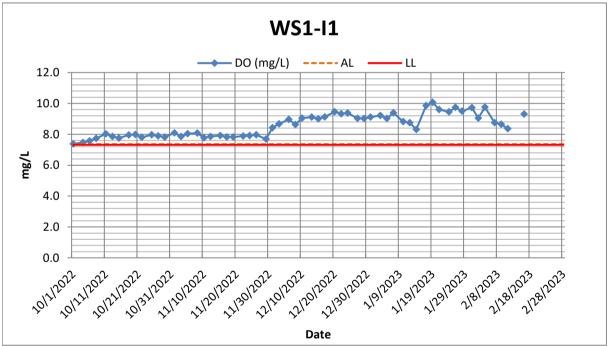




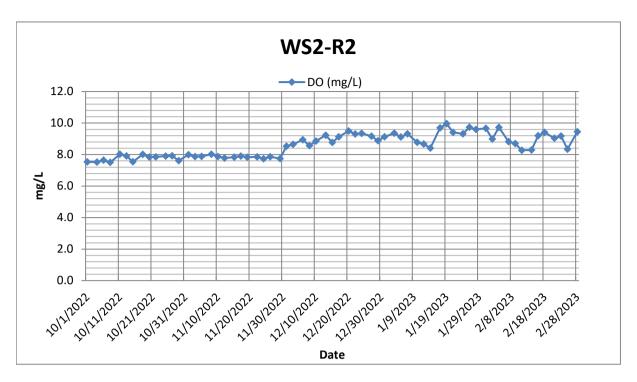


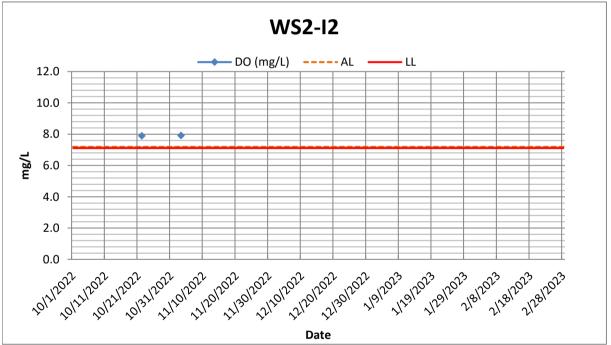




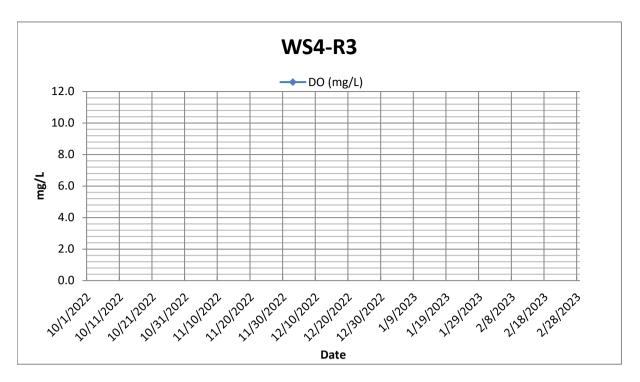


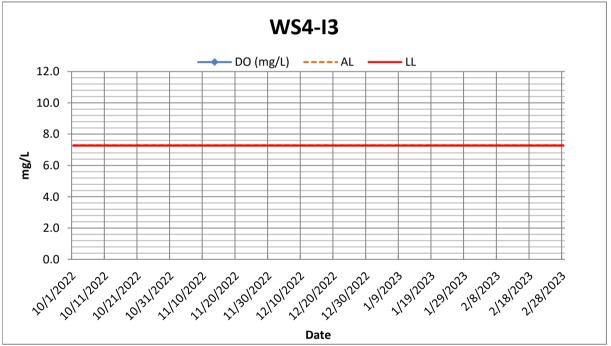




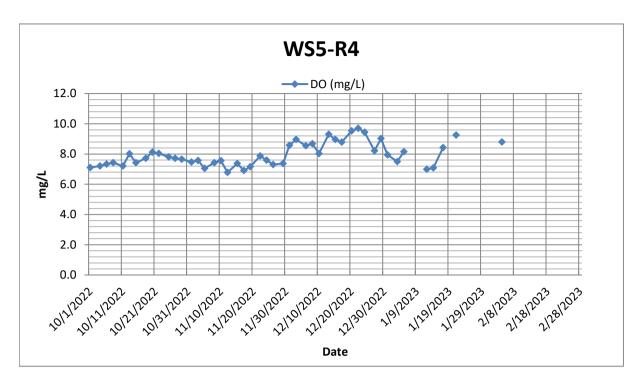


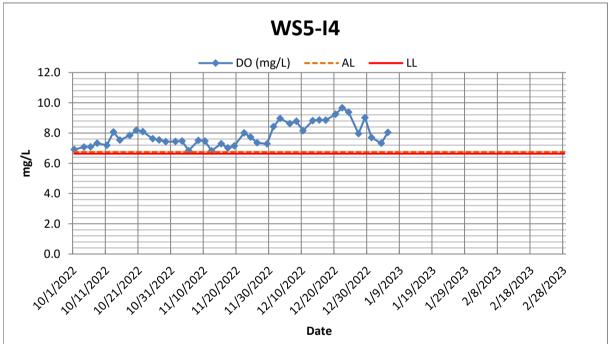




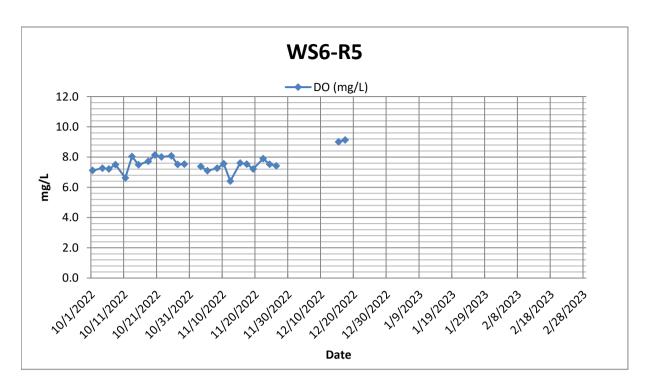


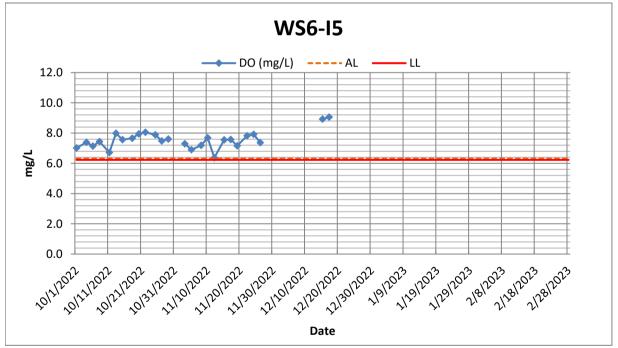




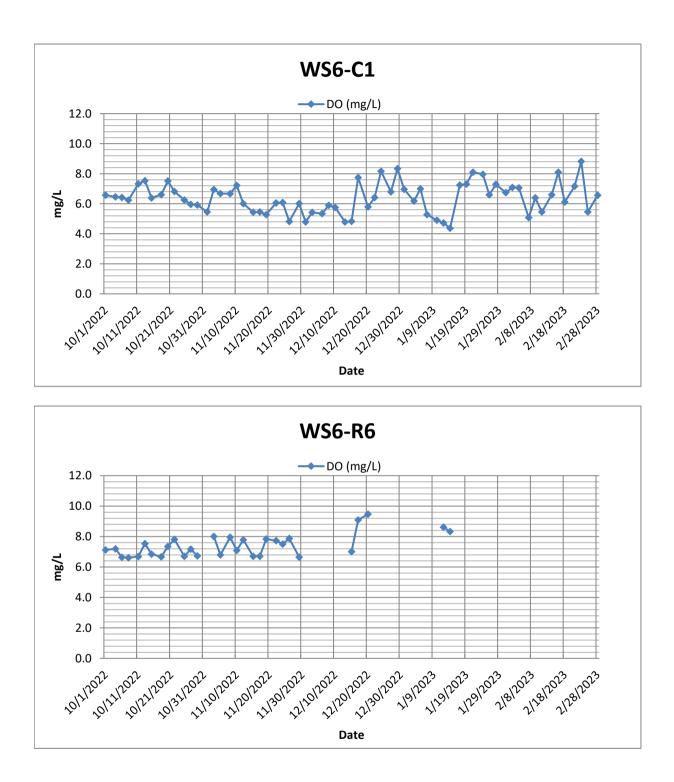




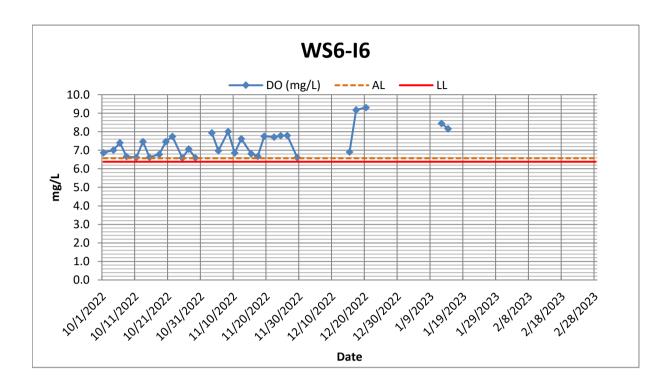




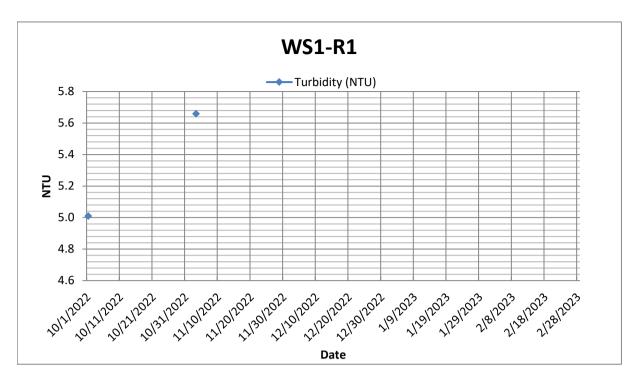


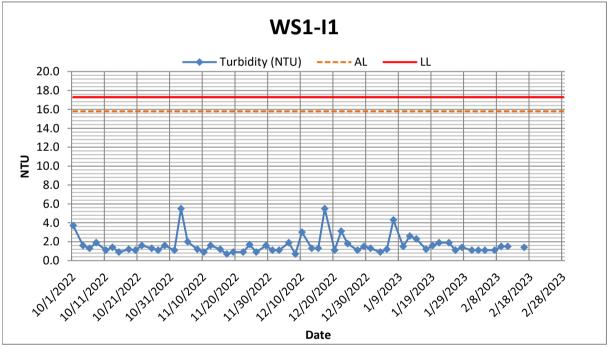




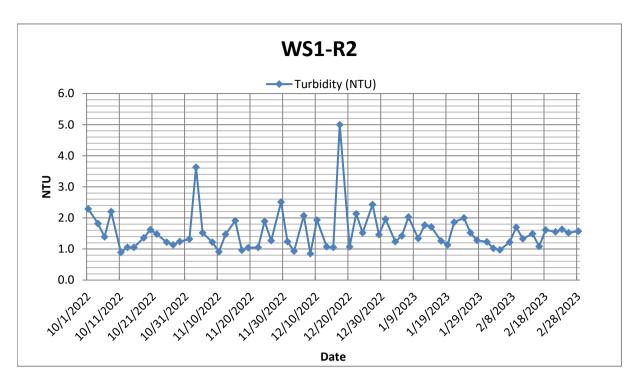


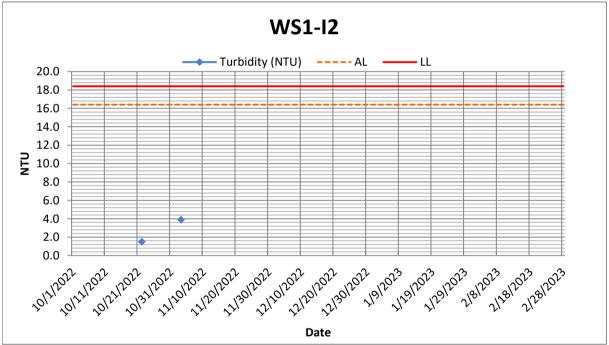




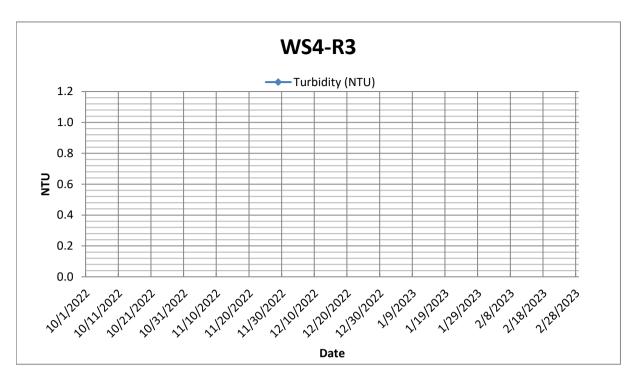


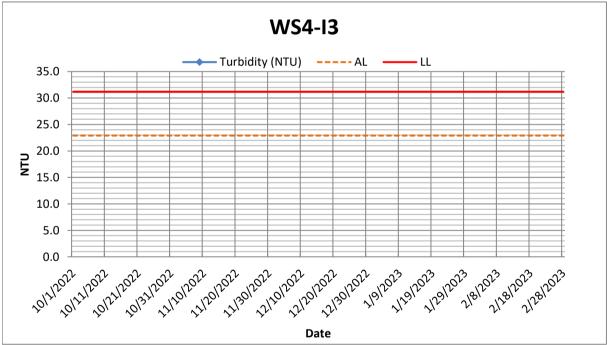




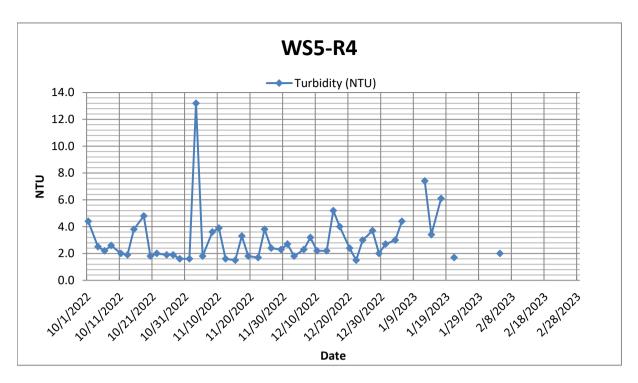


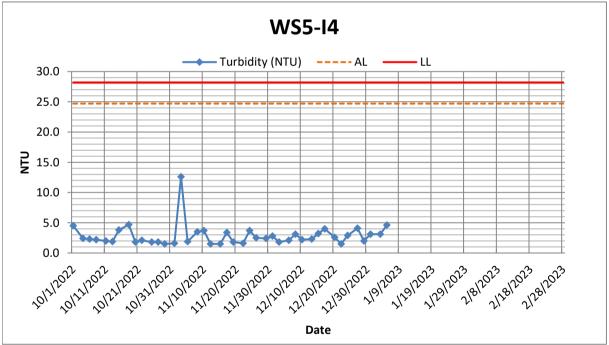




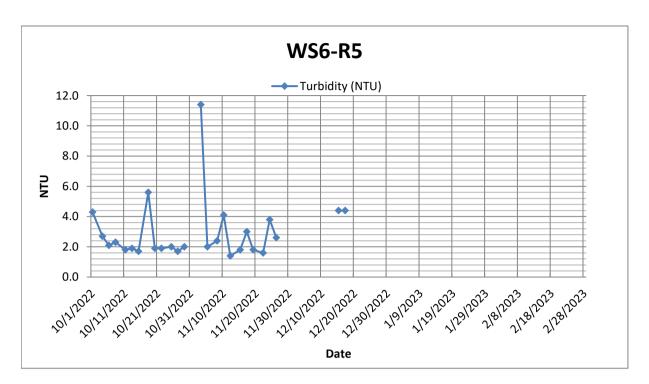


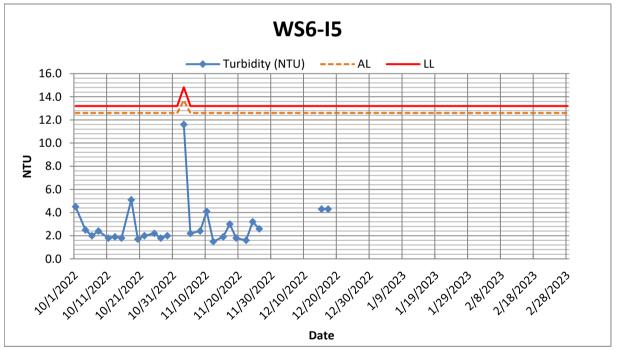




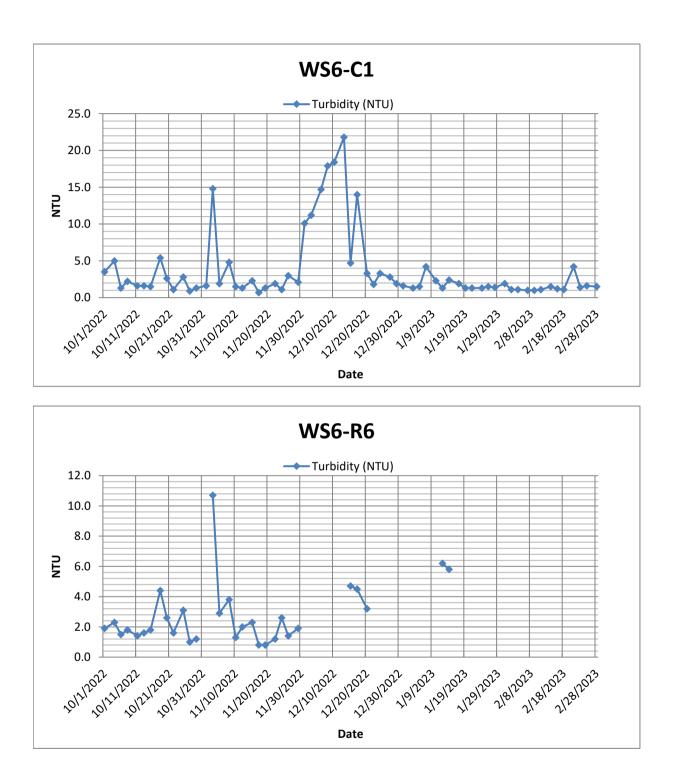




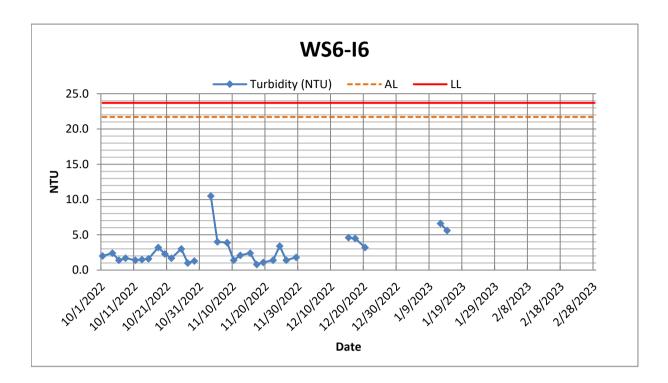




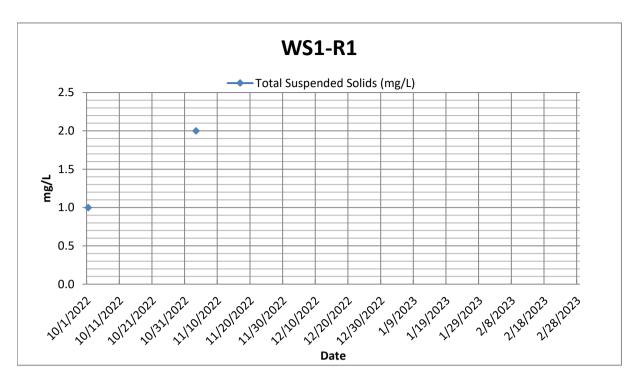


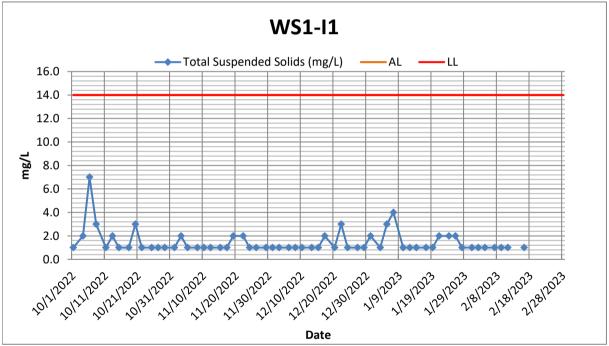




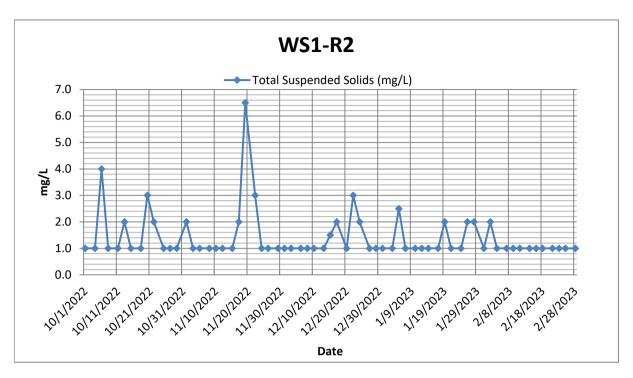


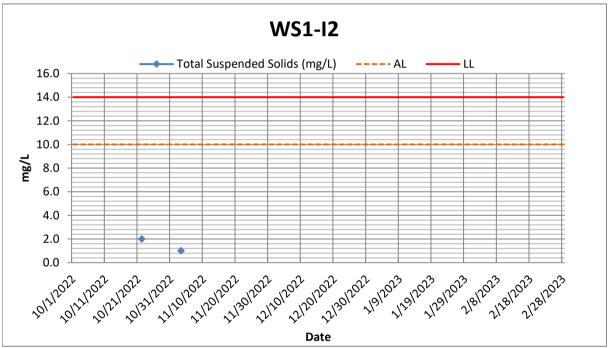




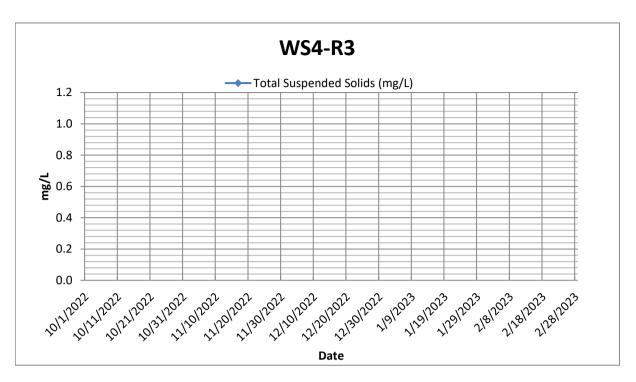


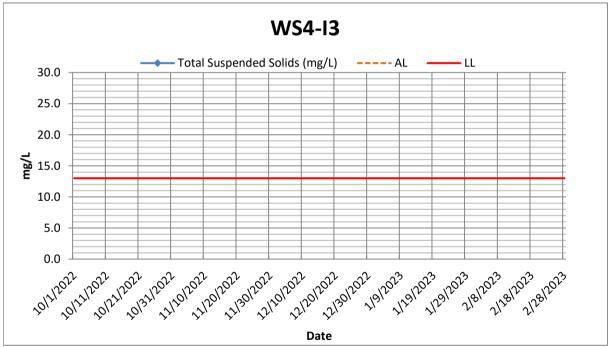




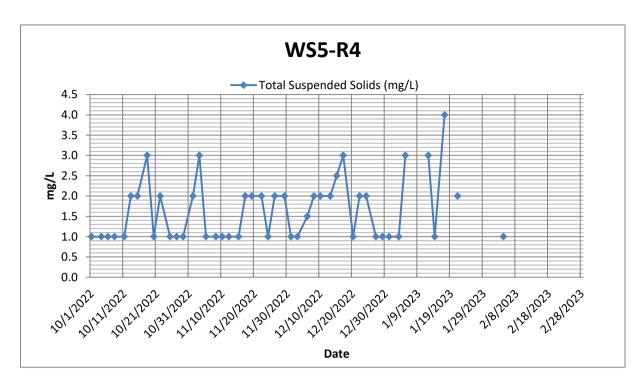


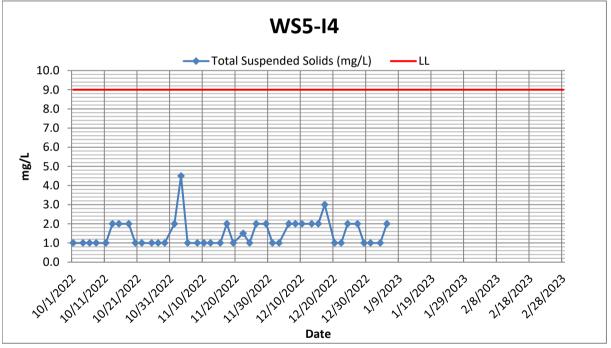




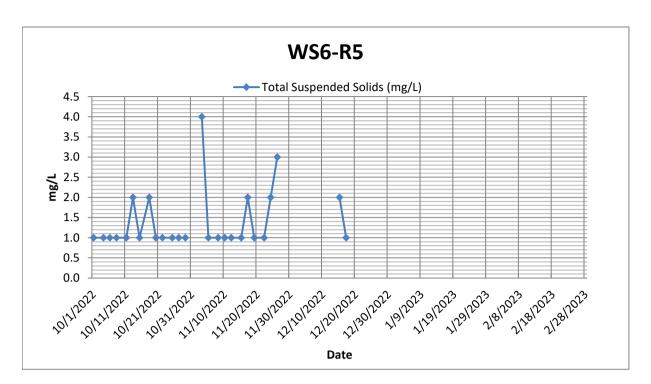


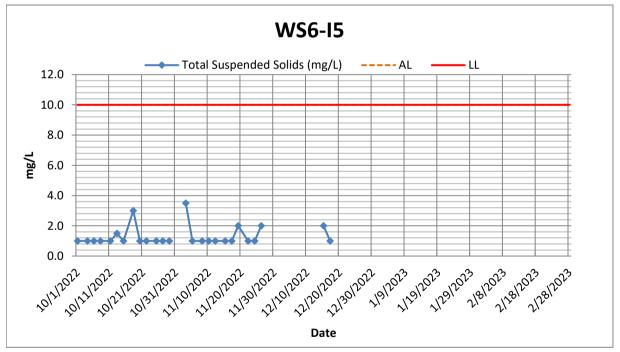




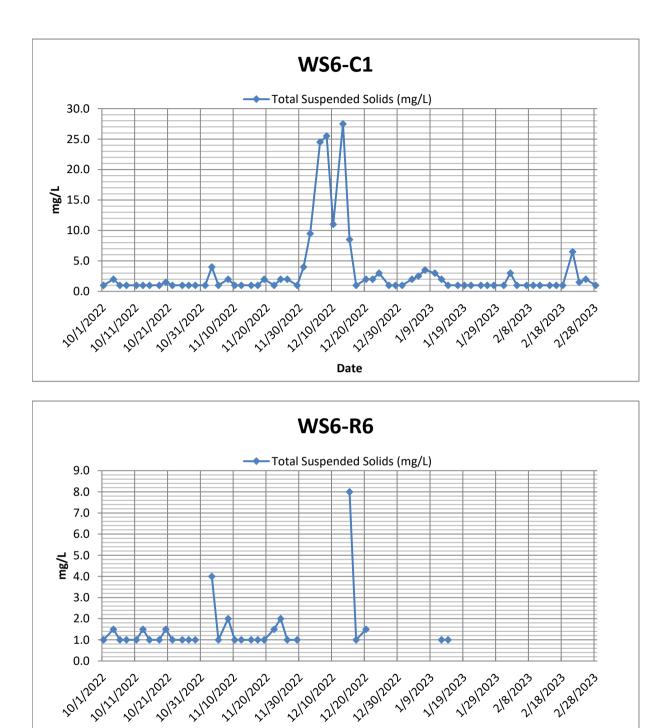






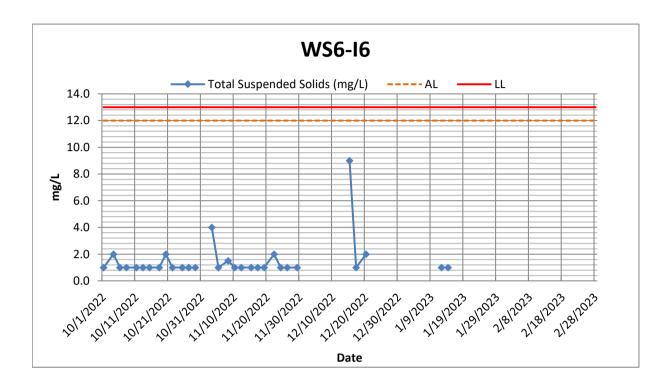






Date







Appendix I Statistics on Exceedances, Complaints, Notifications of Summons and Prosecutions

#### Statistics on Monitoring Exceedance (Reporting Month)

			No. of Exc	eedance
	Reporting Pe	riod	AL	LL
No. of Exceedance This	Noise		0	0
Month	Water Quality	рН	0	0
		DO	0	0
		Turbidity	0	0
		Suspended Solids	0	0

# Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
No. of Complaints , Notifications of Summons	0	0	0
and Successful Prosecutions This Month			
Cumulative Project-to-Date	0	0	0

### **Environmental Complaints Log**

Complaint	Date of Complaint	Received	Received	Nature of	Investigation/Mitigation	
Log No.	Received	From	Ву	Complaint	Action	Status
NIL						

UGRO

Remark:

(1) No Complaints, Notifications of Summons or Successful Prosecutions was received in the reporting period.



# **Appendix J Weather Condition**

Date	Mean Pressure	Air	Temperat	ure	Mean Dew Point	Mean Relative	Mean Amount	
Dutt	(hPa)	Absolute Daily	Mean	Absolute Daily		Humidity (%)	of Cloud (%)	(mm)
		Max (deg. C)	(deg. C)	Min (deg. C)				
				February 20				
1	1015.6	23.7	19.9	17.8	15.8	77	59	-
2	1018.2	21.2	19.4	17.9	15.2	77	56	-
3	1018.6	19.9	17.9	16.7	13.6	76	88	-
4	1017.4	19.1	17.4	16.6	14.2	81	88	0.4
5	1016.0	19.3	17.9	16.8	15.0	83	88	Trace
6	1014.6	21.1	19.2	17.9	16.6	85	88	0.1
7	1015.4	24.8	21.0	18.8	17.9	83	74	Trace
8	1017.1	20.1	18.5	17.2	15.8	84	88	Trace
9	1016.3	23.5	19.5	16.9	16.5	83	83	0.1
10	1014.9	24.2	21.2	19.5	18.9	87	86	0.1
11	1014.6	20.2	18.7	17.8	17.6	93	92	0.9
12	1013.9	21.1	19.9	18.7	19.1	95	88	Trace
13	1013.7	26.1	22.3	19.5	20.2	88	73	Trace
14	1018.8	20.7	18.5	16.6	11.4	64	84	-
15	1023.5	20.3	16.3	13.1	8.4	60	42	-
16	1024.7	19.9	16.8	14.5	9.3	62	83	-
17	1021.2	24.0	18.7	15.6	13.0	70	32	-
18	1018.2	25.1	21.0	18.0	14.6	67	73	-
19	1017.6	26.6	22.8	19.8	16.4	67	70	Trace
20	1019.2	24.1	20.1	18.2	12.8	64	58	-
21	1022.6	20.5	17.8	16.1	10.3	62	48	-
22	1022.2	20.4	16.9	14.8	9.3	61	13	-
23	1018.6	22.9	18.2	15.4	12.6	70	21	-
24	1018.9	23.4	19.8	17.0	13.3	67	13	-
25	1026.5	21.0	17.1	14.8	7.7	54	32	-
26	1029.2	21.2	16.8	14.4	8.3	58	39	-
27	1027.4	20.1	16.4	14.2	8.4	60	8	-
28	1024.0	22.3	17.8	14.9	12.3	71	25	-

Trace means rainfall less than 0.05 mm

Source: Hong Kong Observatory

