











Pacific Light Cable Network (PLCN) - Deep Water Bay (EP-539/2017)

Phase 2 – 2nd Weekly Water Quality Impact Monitoring Report

Jul 2018

Environmental Resources Management

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Client: GMS No: PCCW Global (HK) Limited 0448409 Summary: Date: 31 Jul 2018 Approved by: This report presents the monitoring requirements, methodologies and results of the impact water quality monitoring in accordance with the Project Profile (PP-550/2017). Terence Fong Partner **FZino TFONG** 0 Phase 2 – 2nd Weekly Water Quality Impact Monitoring Report NN 31 Jul 18 Revision Description Ву Checked Approved Date Distribution □ Government Public ☐ Confidential



Pacific Light Cable Network (PLCN) – Deep Water Bay Environmental Certification Sheet EP-539/2017

Reference Document/Plan

Document/Plan-to be-Certified/ Verified:

Phase 2 - 2nd Weekly Water Quality Impact Monitoring Report

Date of Report:

31 July 2018

Date prepared by ET:

ERM-Hong Kong Ltd

Date received by IEC:

Ecosystem Ltd

Reference EM&A Manual/ EP Requirement

EM&A Manual Requirement:

Section 2

Content:

Water Quality Monitoring

G.2.3.1 "The impact monitoring works shall cover all monitoring stations within the same area (Area A or Area B as shown in Figure G1, G2a and G2b) as the works being undertaken for the cable installation/repair operation. ..."

G2.5 The reports to be provided shall include:

- Baseline Monitoring Report;
- Weekly Impact Monitoring Reports; and
- · Post Project Monitoring Report.

...The Impact Monitoring Report will be provided weekly within three days after the relevant monitoring data are collected or become available during the cable installation/repair operation work.

EP Condition:

Conditions No. 3.2 – 3.3

Content:

Water Quality Monitoring

- 3.2 Samples, measurements and necessary remedial actions shall be taken in accordance with the EM&A requirements described in the Project Profile (Register No. PP-550/2017) by:
 - (a) conducting baseline environmental monitoring;
 - (b) conducting impact monitoring; and
 - (c) carrying out remedial actions in accordance to the EM&A requirements as described in the Project Profile (Register No. PP-550/2017), or as agreed by the Director, in case where specified criteria in the EM&A requirements are exceeded.
- 3.3 Submit to the Director three hard copies and one electronic copy of the following, as defined in the EM&A requirements described in the Project Profile (Register No. PP-550/2017):
 - (a) Baseline Monitoring Report on water quality no later than 2 week before the commencement of cable installation works;
 - (b) Weekly EM&A Report no later than 3 days after the relevant monitoring data are collected or become available during the cable installation works; and
 - (c) Final EM&A Report within one month after completion of the construction works.



ET Certification

I hereby certify that the above referenced docu	iment/ plan complies with	the above referenced	condition of
EP-539/2017.			

Terence Fong, Environmental

Team Leader:

Date:

31 July 2018

IEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced condition of EP-539/2017.

Dr Vincent Lai, Independent Environmental Checker:

Date: 31/7/2018

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EXECUTIVE SUMMARY

The cable installation works for the **Pacific Light Cable Network – Deep Water Bay** (the 'Project') are scheduled to be carried out in phases:

- Phase 1 Land Cable Installation and Shore-End Cable Installation (Zone A only) completed on 4 April.
- Phase 2 Submarine Cable Installation (Zones A and B) currently ongoing.

Phase 2 of the Project commenced within Zone A on 10 July 2018, proceeded beyond Zone A on 11 July 2018 and has not proceeded into Zone B by the end of this reporting period. Cable installation works is ongoing at time of this report.

This is the *Phase 2 –2nd Weekly Water Quality Impact Monitoring Report* presenting the water quality impact monitoring conducted during the period from 17 to 23 July 2018, in accordance with the EM&A Manual.

Summary of Construction Works undertaken during the Reporting Period

Phase 2 of the Project resumed at area between Zone A and Zone be on 20 July 2018 and entered Zone B at around 16:00 on the same day. Operation stopped due to equipment problems on 21 July 2018 and was on standby throughout the rest of the reporting period. All works were either within section between Zone A and within Zone B or within Zone B.

Water Quality

Daily monitoring events were conducted for any work days between 17 to 23 July 2018, ie on 20 to 21 July 2018. Monitoring at all designated monitoring stations were performed on schedule. Monitoring was also conducted within Zone B on 19 July, in anticipation of the works, but adverse weather continued and no cable installation work was conducted on 19 July.

Results of monitoring data in round 3 of WQ monitoring on 21 July 2018 indicated project works may have contributed to some of the recorded suspended solids (SS) exceedance (works subsequently stopped). SS levels observed during the earlier rounds 1 and 2 of monitoring on 21 July 2018, as well as on 20 July 2018, were considered upon careful review to reflect natural background fluctuations/ seasonal variations. The above is supported by the fluctuations of SS levels recorded across all stations, including control stations, on 19 July 2018 when no cable burial operation works were conducted (and had not been conducted since works were stopped on 12 July due to adverse weather).

Environmental Non-conformance

No non-conformance was recorded; results of monitoring data in round 3 of 21 July 2018 indicated project works may have contributed to some of the recorded SS exceedance (works subsequently stopped). For other rounds of survey on 21 July 2018 as well as on 19 and 20 July 2018, results of detailed investigations indicated none of the exceedances recorded were attributed to the Project construction works:

- Three Notification of Exceedances (NOEs) with detailed investigation reports were issued to EPD and AFCD during the reporting period for recording daily exceedances of Action and Limit Levels for suspended solids.
- The Contractors have been notified by the Environmental Team (ET) about the recent exceedances and asked to take care to ensure all necessary procedures are followed to avoid the Project adversely impacting the water environment.

No complaint and summons/prosecution was received during the reporting week.

Future Key Issues

There are no key issues identified.

Over the next monitoring period (24 to 31 July), installation works are expected to resume within Zone B and potentially complete the section within Zone B.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by PCCWG as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Pacific Light Cable Networks (PLCN) – Deep Water Bay Project (thereinafter called the 'Project').

1.1 Purpose of the Report

This is the 2nd Weekly Water Quality Impact Monitoring Report for Phase 2 of the Project (Submarine Cable Installation), and summarises the water quality (WQ) impact monitoring results during the reporting period from 17 to 23 July 2018.

1.2 STRUCTURE OF THE REPORT

The structure of the report is as follows:

Section 1: Introduction

Details the background, purpose and structure of the report.

Section 2: **Project Information**

Summarises background and scope of the project, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3: Water Quality Monitoring Requirements

Summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, and Event / Action Plans.

Section 4: Monitoring Results

Summarises the monitoring results obtained in the reporting period.

Section 5: Environmental Non-conformance

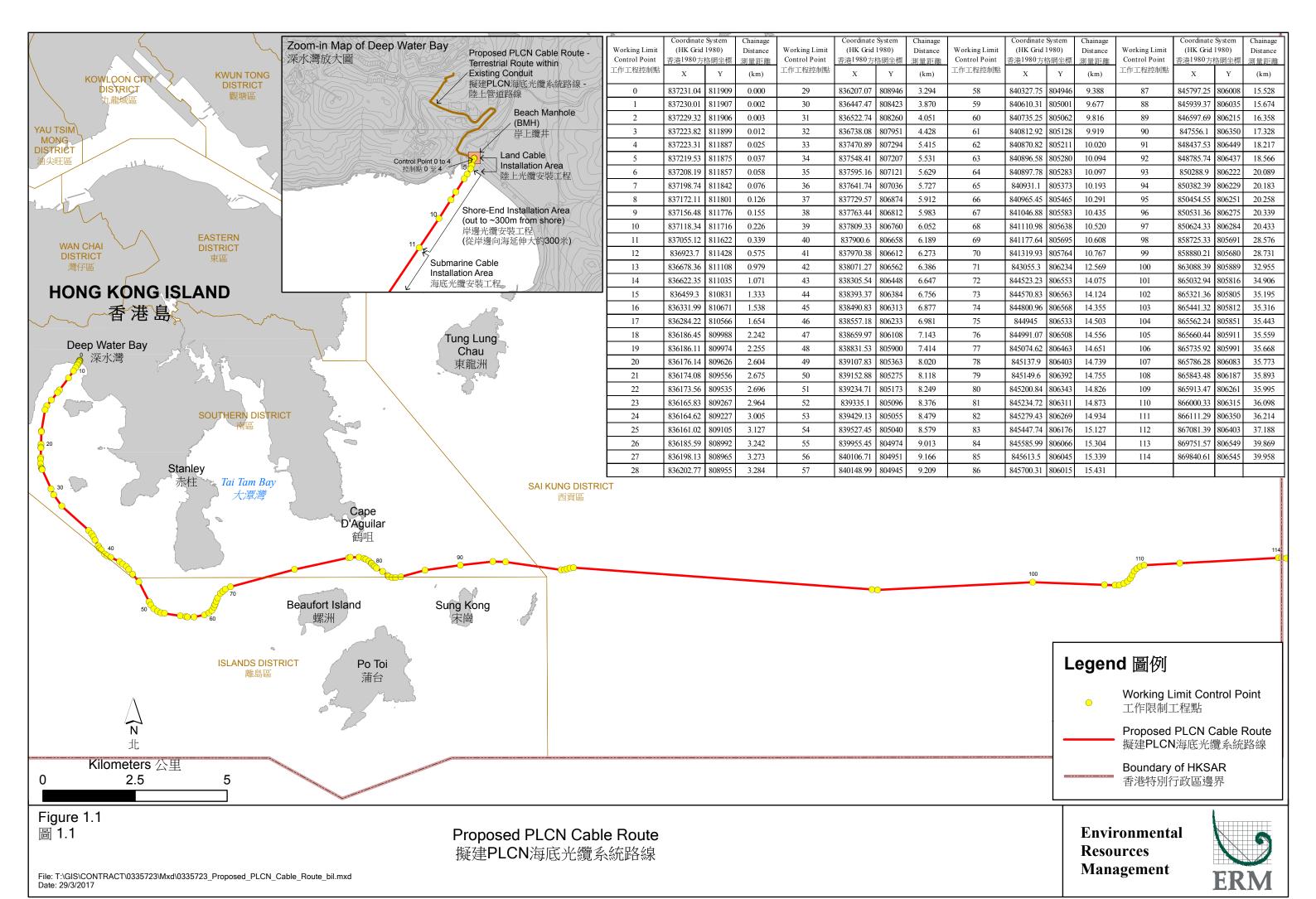
Summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 6: Future Key Issues

Summarises the monitoring schedule for the next week.

Section 7: Conclusions

Presents the key findings of the impact monitoring results.



PROJECT INFORMATION

2.1 BACKGROUND

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In order to help meet the tremendous telecommunication services requirements between Asia and North America, the **PLCN Consortium** has decided to build a submarine telecommunication cable system, which will be approximately 12,800 km in length, connecting Hong Kong and the United States. The cable will connect to Deep Water Bay (DWB) within the HKSAR. **PCCW Global (HK) Limited (PCCWG)** is providing the cable landing point and the associated cable landing service in Hong Kong for the PLCN Consortium.

The proposed cable will land at an existing Beach Man Hole location at Deep Water Bay (DWB) in Hong Kong and the full route of the proposed PLCN submarine cable system is depicted in *Figure 1.1*. It should be noted that DWB is currently the landing site for a number of submarine cables.

The Project Profile (PP-550/2017) which includes an assessment of the potential environmental impacts associated with the installation and operation of the submarine telecommunications cable system within HKSAR (including connection to land at DWB) was prepared and submitted to the Environmental Protection Department (EPD) under section 5.(1) (b) and 5.(11) of the *Environmental Impact Assessment Ordinance* (EIAO) for the application for Permission to apply directly for Environmental Permit (EP). On 1 June 2017, EPD issued a letter to PCCWG permitting direct application for an environmental permit and following an application, EPD subsequently issued an Environmental Permit (EP-539/2017) on 10 July 2017.

Pursuant to *Condition 3.1* of the EP, an environmental monitoring and audit (EM&A) programme, as set out in the Project Profile is required for this Project. As per *Condition 3.2* of the EP regarding Water Quality Monitoring, there is a requirement to conduct water quality baseline monitoring and impact monitoring. The corresponding Action and Limit Levels will be derived from the baseline data.

Cable installation for this Project has been scheduled to be carried out in two phases, with Phase 1 situated in part of Zone A only and Phase 2 covering Zones A and B (as well as the alignment outside both Zone A or Zone B). The phasing of the cable installation works is indicated in the key in *Figures 2.1* to 2.3 and the current schedule and works carried out to date for each Phase is as follows:

 Phase 1 Land Cable Installation and Shore-End Cable Installation (Zone A only): Mini shore-end cable installation to Beach Manhole at Deep Water Bay (DWB), involving land trench excavation and shore-end cable installation of the PLCN cable (ie from Beach Manhole out to approximately 650 m from Beach Man Hole) using diver jetting;

- Baseline data were collected prior to the start of Phase 1 cable installation works (between 5th and 9th February 2018) and Action and Limit Levels derived from these data, as presented in the final *Baseline Water Quality Monitoring Report* (*Zone A*).
- Land trenching commenced 6 March 2018. Following issue of Marine Department Notice on 23 March 2018, land trenching completed with LCSD inspection of restored beach area, on 24 March 2018.
- Near shore marine diver jetting works within silt curtain commenced 24 Mar 2018 and was completed on 4 April.
- Phase 2 Submarine Cable Installation (Zones A and B): Installation of PLCN cable from shore-end (ie approximately 650m from Beach Manhole) to HK SAR marine eastern boundary, involving jetting technique and potential diver jetting in specific areas (eg HK Electric Pipeline crossing).
 - Baseline data were collected prior to the start of Phase 2 cable installation works (between 28 May and 2 June 2018) and Action and Limit Levels derived from these data, as presented in the final *Baseline Water Quality Monitoring Report* (*Zone A and Zone B for Phase 2 Installation*).
 - Marine installation works using jetting commenced on 10 July 2018 and were suspended on 12 July due to adverse weather, remaining on standby until restart on 20 July. Marine installation works were then suspended again due to equipment problems at the end of the day on 21 July 2018 and remain suspended throughout the remainder of the reporting period.

This report covers the second week of the Project's *Phase 2 Submarine Cable Installation* and refers to the *Baseline Water Quality Monitoring Report (Zone A and Zone B for Phase 2 Installation*) for Action and Limit Levels.

2.2 MARINE CONSTRUCTION WORKS UNDERTAKEN DURING REPORTING WEEK

A summary of the key works undertaken during the reporting week is shown in *Table 2.1*.

Table 2.1 Summary of Marine Works Undertaken During the Reporting Week

Date	Works Area	Activity	Cable Barge Approximate	Position & Burial Depth
			Position	bullal Deptil
Tue 17	Between Zone A	No construction activity due to adverse	At KP10.4 on	Not applicable
July	and Zone B	weather conditions. Works on standby.	standby	
2018				
Wed 18	Between Zone A	No construction activity due to adverse	As above	Not applicable
July	and Zone B	weather conditions. Works on standby.		
2018				
Thu 19	Between Zone A	No construction activity due to adverse	As above	Not applicable
July	and Zone B	weather conditions. Works on standby.		
2018				

Date	Works Area	Activity	Cable Barge Approximate Position	Position & Burial Depth
Fri 20 July 2018	Entered Zone B towards end of day	Jetting and burial of cable, starting at section between Zone A and Zone B, moving into Zone B around 1600.	Start: KP 10.4, End: KP 14.4	Burial depth of 5m
Sat 21 July 2018	Zone B	Jetting and burial of cable, in Zone B. Operations stopped at 16:45 due to equipment problems	Start: KP 14.4 End: KP 14.5	Burial depth of 5m
Sun 22 July 2018	Zone B	Equipment problems. Works on standby.	Remained at KP 14.5 on standby	Not applicable
Mon 23 July 2018	Zone B	Equipment problems. Works on standby.	As above	Not applicable

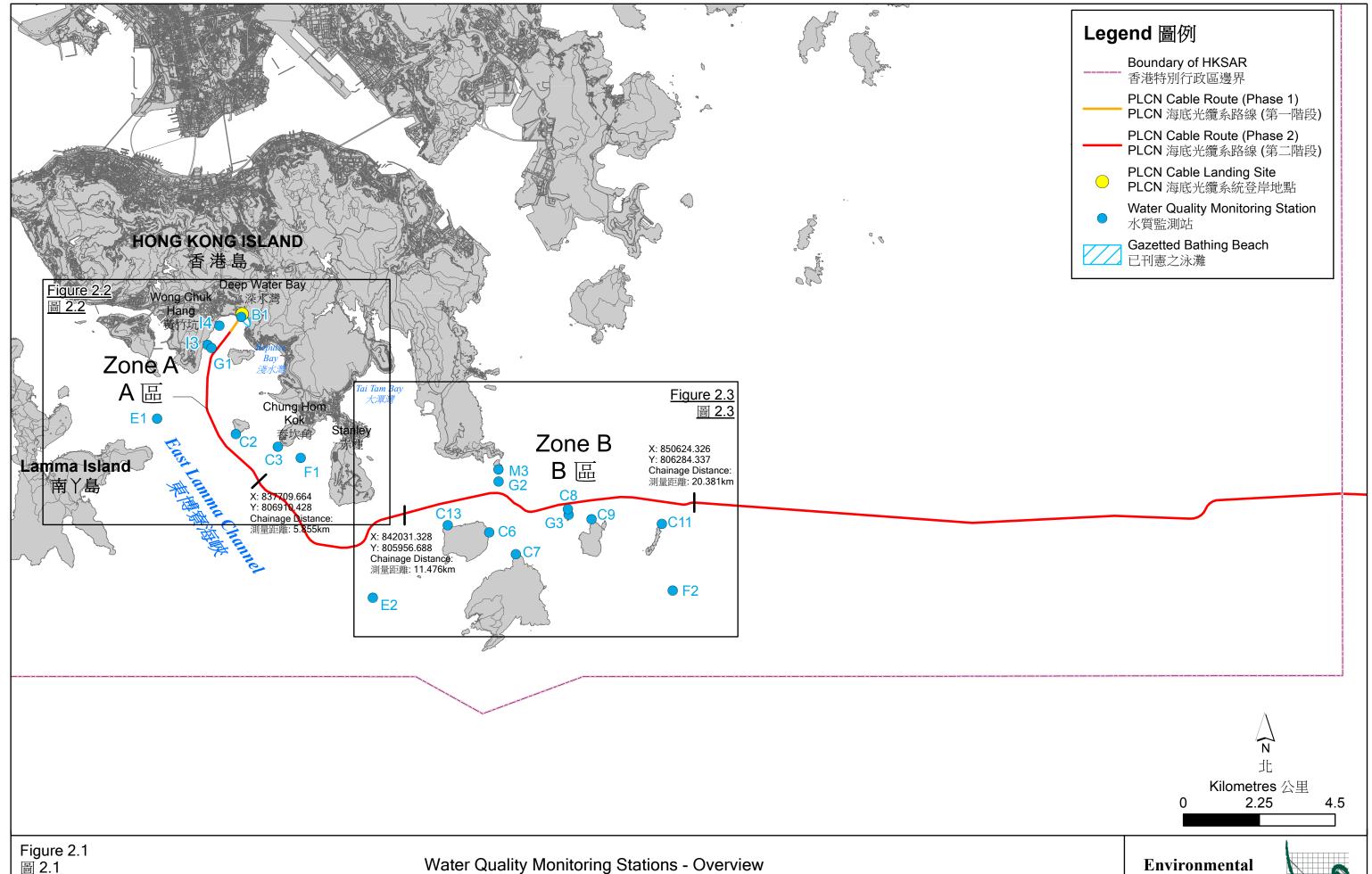
2.3 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, notifications and/or reports on environmental protection for this Project is presented in *Table 2.2*.

Table 2.2 Summary of Environmental Licensing, Notification, Permit and Reporting Status

Permit / Licence / Reference		Validity Period	Remarks
Notification / Report			
Environmental Permit	(EP-539/2017)	Throughout construction	Granted on 10
	Available at	& operation period	July 2017
	http://www.epd.gov.hk		
	/eia/english/alpha/asp		
	<u>d_717.html</u>		
EM&A Manual	(PP-550/2017)	Throughout construction	Approved by
	(as part of the Project	& operation period	EPD on 1 June
	Profile – see above)		2017
Baseline Water Quality	Available at	Throughout construction	Approved by
Monitoring Report	http://www.epd.gov.hk	period for Phase 1 works	EPD on 15
(Zone A)	/eia/english/register/ae	in Zone A	March 2018
	p/ep5392017_content.ht		
	<u>ml</u>		
1st Weekly WQ Impact	Available at	Throughout first week for	Final
Monitoring Report	http://www.epd.gov.hk	Phase 1 works in Zone A	Submission to
	/eia/english/register/ae		EPD on 18 Apr
	p/ep5392017_content.ht		2018
	<u>ml</u>		
2nd Weekly WQ Impact	Available at	Throughout second week	Final
Monitoring Report	http://www.epd.gov.hk	for Phase 1 works in Zone	Submission to
	/eia/english/register/ae	A	EPD on 20 Apr
	p/ep5392017_content.ht		2018
	<u>ml</u>		
Phase 1- Post Project	Available at	Following construction	Final
Monitoring Report	http://www.epd.gov.hk	period for Phase 1 works	Submission to
	/eia/english/register/ae	in Zone A	EPD on 15 May
	p/ep5392017_content.ht		2018
	<u>ml</u>		

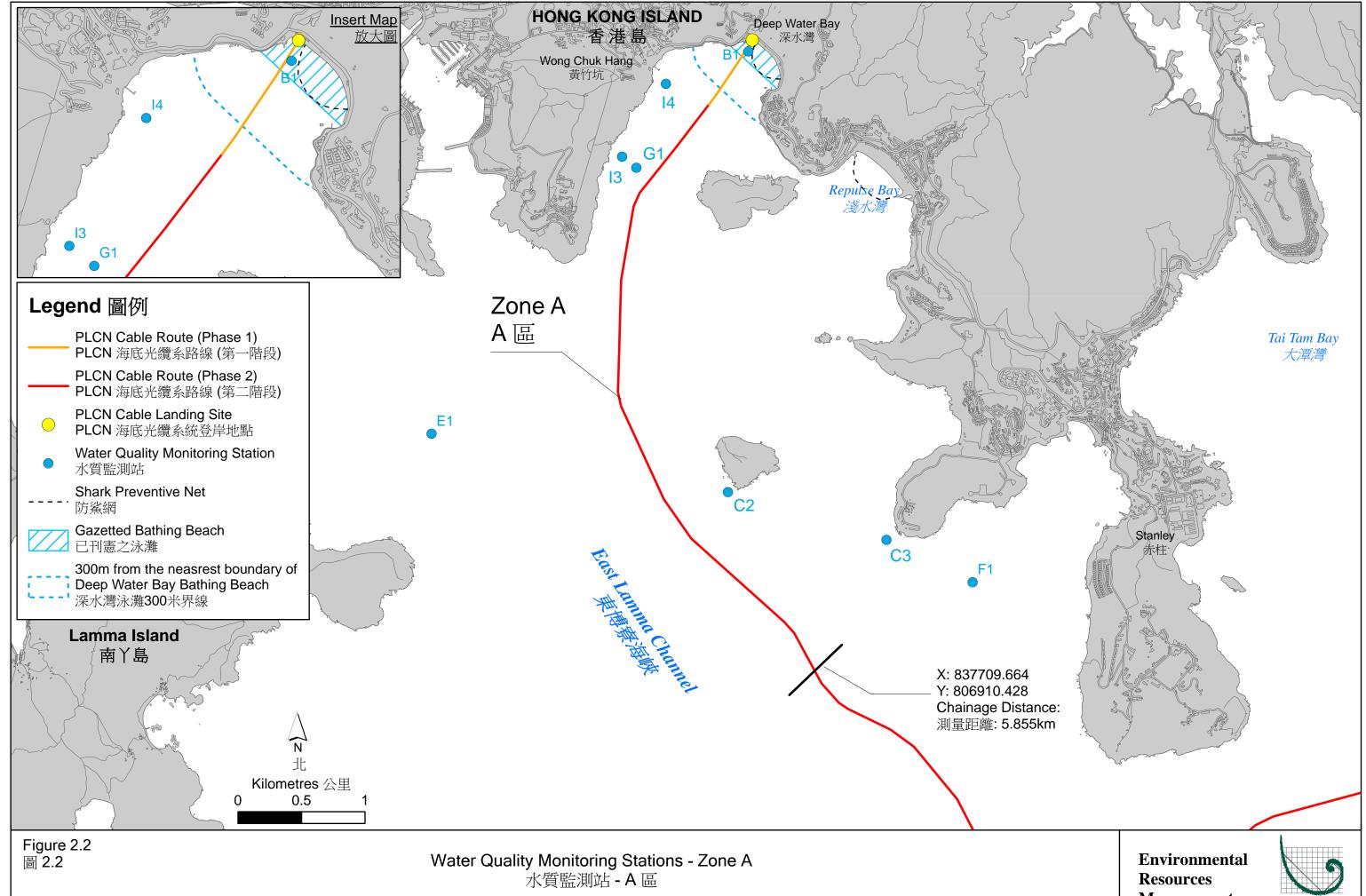
Permit / Licence /	Reference	Validity Period	Remarks
Notification / Report			
Baseline Water Quality	Available at	Throughout construction	Final
Monitoring Report	http://www.epd.gov.hk	period for Phase 2 works	Submission to
(Zone A and Zone B for	/eia/english/register/ae	in Zone A and Zone B	EPD on 29 June
Phase 2 Installation)	p/ep5392017_content.ht		2018
	<u>ml</u>		
1st Weekly WQ Impact	Available at	Throughout first week of	Final
Monitoring Report	http://www.epd.gov.hk	construction period for	Submission to
	/eia/english/register/ae	Phase 2	EPD on 25 July
	p/ep5392017_content.ht		2018
	<u>ml</u>		



Water Quality Monitoring Stations - Overview 水質監測圖 - 概覽

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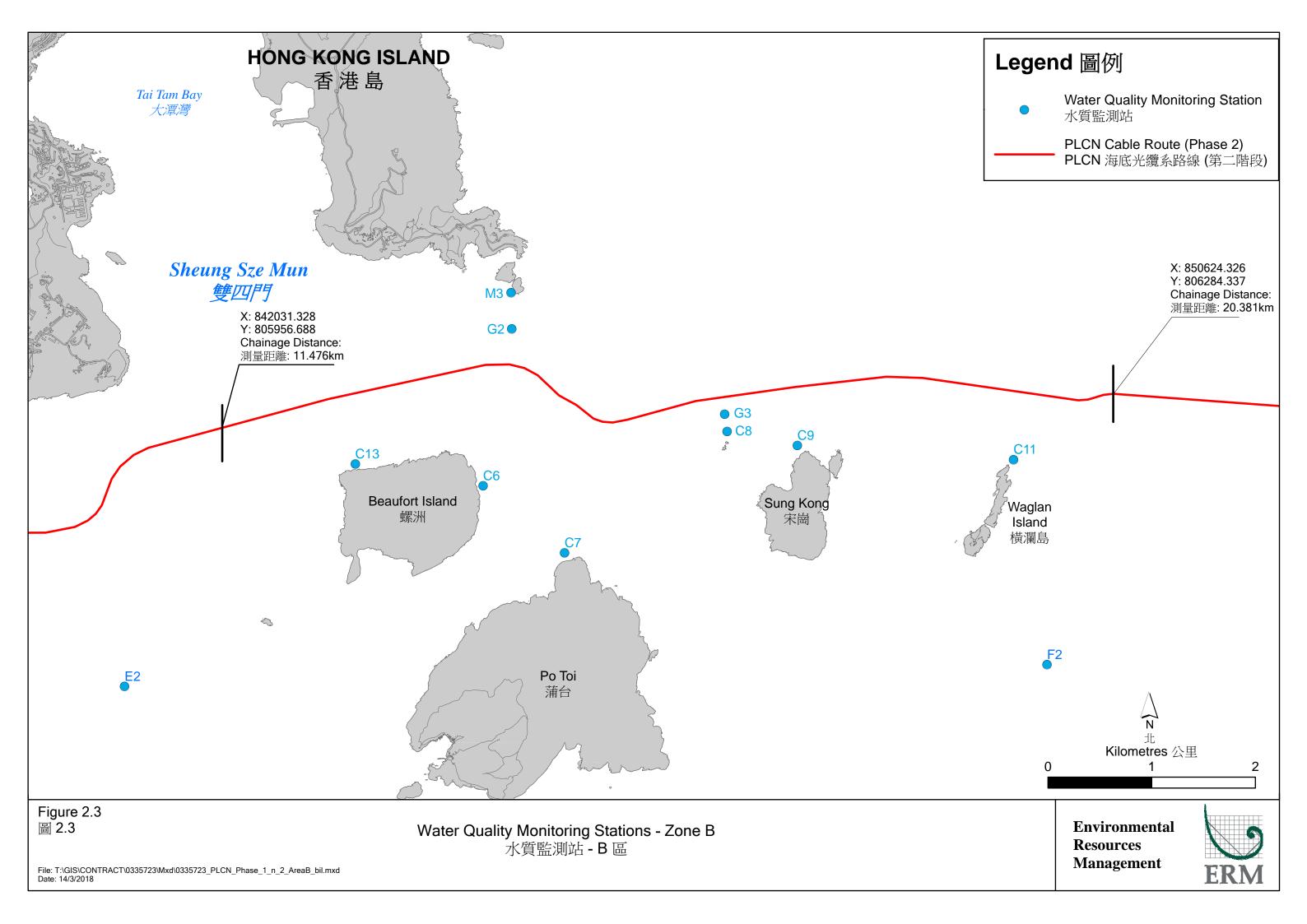




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Management





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3.1 MONITORING LOCATIONS

In accordance with the *Annex G* of *the Project Profile*, during the installation of the cable in Zone B, water quality sampling was undertaken at stations situated in Zone B. The locations of the sampling stations within Zone B are shown in *Figures 2.1* to 2.3. The co-ordinates of the two zones and the above monitoring stations are listed in *Table 3.1* and *Table 3.2*, respectively.

Table 3.1 Co-ordinates of Starting Points and Ending Points for Zone B (HK Grid)

Zone	Starting Point	Starting Point		
	Easting	Northing	Easting	Northing
В	842031.328	805956.688	850624.326	806284.337

Table 3.2 Co-ordinates of Baseline Monitoring Stations (HK Grid)

Station	Nature	Corresponding Control Station	Easting	Northing
	The waters from Beaufort Island to Waglan s are located close to the cable alignment.	Island where a	number	of sensitive
Covers t	he cable alignment between Chainage 11.117 km	and 20.014 km.		
C6	Impact Station (Coral sites along the coast of south & east Beaufort Island)	E2, F2	844548	805397
C7	Impact Station (Coral sites along the coast of Po Toi Island)	E2, F2	845334	804749
C8	Impact Station (Coral sites along the coast of Sung Kong Islet)	E2, F2	846901	805922
C9	Impact Station (Coral sites along the coast of Sung Kong)	E2, F2	837028	808316
C11	Impact Station (Coral sites along the coast of Waglan Island)	E2, F2	849664	805649
C13	Impact Station (Coral site along the coast of north Beaufort Island)	E2, F2	843316	805606
M3	Impact Station (Cape d'Aguilar Marine Reserve)	E2, F2	844817	807259
G2	Gradient Station (Between M3 Cape d'Aguilar Marine Reserve and cable alignment)	E2, F2	844824	806909
G3	Gradient Station (Between C8 Coral sites along the coast of Sung Kong Islet and cable alignment)	E2, F2	846878	806086
E2	Control Station for Area B in Ebb Tide	-	841090	803463
F2	Control Station for Area B in Flood Tide	-	849986	803673

3.2 MONITORING PARAMETERS AND FREQUENCY

The impact water quality monitoring was conducted in accordance with the requirements stated in the *Annex G* of *the Project Profile*. These are presented below.

3.2.1 *Monitoring Parameters*

Parameters measured in situ were:

- dissolved oxygen (DO) (% saturation and mg L-1);
- temperature (°C);
- turbidity (NTU); and
- salinity (%).

The only parameter measured in the laboratory was:

• suspended solids (SS) (mg L-1).

In addition to the water quality parameters, other relevant data were measured and recorded in field logs, including the location of the sampling stations, water depth, time, weather conditions, sea conditions, tidal state, current direction and speed, special phenomena and work activities undertaken around the monitoring and works area that may influence the monitoring results.

3.2.2 Monitoring Frequency

Impact Monitoring at all monitoring stations within Zone B (C6, C7, C8, C9, C11, C13, M3, G2, G3, E2 and F2) took place when the cable installation works were undertaken within Zone B as shown in *Figure 2.3*. There were no cable installation works carried out within Zone A during the reporting period.

All Phase 2 construction works were undertaken during normal working hours (07:00 - 19:00), and impact monitoring (including the collection of *In-situ* and SS data) was conducted at 2 to 3-hour intervals during the cable installation works, depending on the vessel travel time between stations. The monitoring frequency and parameters for Impact Monitoring are summarised in *Table 3.3*.

Table 3.3 Monitoring Frequency and Parameters for Impact Monitoring at Zone B

Zone	Station	Monitoring	Monitoring Frequency	Monitoring
	Type	Station		Parameter
В	Control	E2 and F2	At two- to three-hour interval (subject to	Temperature,
	Impact	C6, C7, C8, C9,	the sampling vessel travelling time	Turbidity,
		C11, C13, M3,	among stations) from 07:00 to 19:00 daily	Salinity, DO, SS
		G2 and G3	when cable installation works	
			undertaken in Zone B *	

^{*} Monitoring was conducted within Zone B on 19 July, in anticipation of works resuming, however, adverse weather continued and no cable installation work was conducted on 19 July.

3.3 MONITORING EQUIPMENT AND METHODOLOGY

3.3.1 Monitoring Equipment

Table 3.4 summaries the equipment used for the water quality impact monitoring.

Table 3.4 Equipment used during Baseline Water Quality Monitoring

Equipment	Model
Global Positioning Device	Garmin etrex 20x & Furuno GP-170E (dGPS)
Water Depth Gauge	Sontek Hydrosurveyor / Sontek Riversurveyor
Water Sampling Equipment	Wildlife 1120 – 2.2L alpha vertical sampler
Salinity, DO, Temperature Measuring Meter	YSI ProDSS (Multi-Parameter)
Current Velocity and Direction	Sontek Hydrosurveyor / Sontek Riversurveyor
Turbidity Meter	YSI ProDSS (Multi-Parameter)

3.3.2 *Monitoring Methodology*

Timing & Frequency

The water quality monitoring was conducted on all work days within Zone B at 2 to 3-hour intervals during the cable installation works, depending on the vessel travel time between stations. Monitoring started on 19 July with the anticipation of jetting works resuming then upon improvement of weather condition (which did not happen). The jetting works eventually resumed later on 20 July 2018. A total of 2 monitoring rounds were conducted on 19 and 20 July 2018 and 3 monitoring rounds were conducted on 21 July.

Depths

Each station was sampled and measurements were taken at three depths, 1 m below the sea surface, mid depth and 1m above the sea bed. (All stations were at least 3 m in depth)

Protocols

All *in situ* monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use (see calibration reports in *Annex A*), and will subsequently

be re-calibrated at-monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use.

For the on-site calibration of field equipment, the *BS* 1427: 1993, *Guide to Field and On-Site Test Methods for the Analysis of Waters* was observed. Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was made available.

Water samples for SS measurements were collected in high density polythene bottles, packed in ice (cooled to 4° C without being frozen), and delivered to a HOKLAS laboratory (ALS Technichem [HK] Pty Ltd) as soon as possible after collection.

Laboratory Analysis

All laboratory work was carried out in a HOKLAS accredited laboratory (ALS Technichem [HK] Pty Ltd). Water samples of about 1,000 mL were collected at the monitoring and control stations for carrying out the laboratory determinations. The determination work started within the next working day after collection of the water samples. The SS laboratory measurements were provided within 2 days of the sampling event (48 hours). The analyses followed the standard methods as described in APHA Standard Methods for the *Examination of Water and Wastewater*, 19th Edition, unless otherwise specified (APHA 2540D for SS).

The QA/QC details were in accordance with requirements of HOKLAS or another internationally accredited scheme (for details refer to *Annex B*).

3.3.3 Action and Limit Levels

The Action and Limit levels for Zone B, which were established based on the results of *Baseline Water Quality Monitoring (Zone A and Zone B for Phase 2)*, are presented in *Table 3.5*.

Table 3.5 Action and Limit Levels for Water Quality – Phase 2

Parameter	Action Level	Limit Level
	ort Island to Waglan Island when e cable alignment. Covers the c km.	
SS in mg L-1	95%-ile of baseline data	99%-ile of baseline data
(Depth-averaged)	(5.69 mg L ⁻¹), or	$(6.23\ mg\ L^{1})$, and
	20% exceedance of value at any impact station compared with corresponding data from control station	30% exceedance of value at any impact station compared with corresponding data from control station
DO in mg L-1	Surface and Middle	Surface and Middle
	5%-ile of baseline data for surface and middle layer	4 mg L ⁻¹ or 1%-ile of baseline for surface and middle layer
	(5.76 mg L ⁻¹)	(5.56 mg L ⁻¹)

Parameter	Action Level	Limit Level
	<u>Bottom</u>	<u>Bottom</u>
	5%-ile of baseline data for bottom layer	2 mg L-1 or 1%-ile of baseline data for bottom layer
	(5.84 mg L ⁻¹)	(5.64 mg L ⁻¹)
Turbidity in NTU (Depth-	95%-ile of baseline data	99%-ile of baseline data
averaged)	(9.28 NTU), or	(10.77 NTU), and
	20% exceedance of value at any impact station compared with corresponding data from control station	30% exceedance of value at any impact station compared with corresponding data from control station

Notes:

- a. "Depth-averaged" is calculated by taking the arithmetic means of reading of all sampled depths.
- b. For DO, non-compliance of the water quality limits occurs when the monitoring result is lower than the limits.
- c. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.
- d. The Action and Limit Level for DO for surface and middle layer were calculated from the combined pool of baseline surface layer data and baseline middle layer data.

3.3.4 Event and Action Plan

The Event and Action Plan for water quality monitoring which was stipulated in the *Annex G* of the *Project Profile* is presented in *Table 3.6*.

Table 3.6 Event Action Plan for Water Quality

Event	Contractor	
Action Level Exceedance	Step 1 - repeat sampling event. Where applicable, review resul gradient station(s) to confirm the source of impact.	
	Step 2 – Inform EPD and AFCD and confirm notification of the non-compliance in writing;	
	Step 3 - discuss with cable installation/ repair operation contractor the most appropriate method of reducing suspended solids during cable installation/ repair operation (e.g. reduce cable laying speed/pressure in jetting water) and agree with EPD.	
	Step 4 - repeat measurements after implementation of mitigation for confirmation of compliance.	
	Step 5 - if non-compliance continues - increase measures in Step 3 and repeat measurements in Step 3. If non-compliance occurs a third time, suspend cable installation/repair operations.	

Event	Contractor
Limit Level Exceedance	Step 1 - Suspend cable installation/repair operations immediately (until the cause of the non-compliance is detected and the situation is rectified).
	Step 2 - repeat sampling event. Where applicable, review results of gradient station(s) to confirm the source of impact.
	Step 3 – Inform EPD and AFCD and confirm notification of the non-compliance in writing
	Step 4 - discuss immediately with cable installation/ repair operation contractor the most appropriate method of reducing suspended solids during cable installation/ repair operation (e.g. reduce cable laying speed/pressure in jetting water) and agree with EPD.
	Step 5 - repeat measurements after implementation of mitigation or suitable time has elapsed since suspension of cable installation/repair operations, for confirmation of compliance.
	Step 6 Repeat Step5 until measurements show compliance.

4 IMPACT MONITORING RESULTS

Monitoring surveys were carried out on three days in the reporting period at Zone B, covering all work days when cable burial within Zone B was conducted in the period. All monitoring at all designated monitoring stations within Zone B was performed on schedule, ie on 19 to 21 July 2018, as detailed in *Table 2.1*.

No Project activities that influenced the water quality within Zone B were identified between in the reporting period, except Project works were suspected to contribute to recorded SS exceedance in the round 3 monitoring survey event on 21 July 2018 (works subsequently stopped).

4.1 DATA COLLECTED

The monitoring data within Zone B are presented in *Annex C* and compared against the baseline monitoring results in *Figures C1 -C4*.

A wide range of spatial and temporal variation was recorded at monitoring stations within Zone B for suspended solids throughout each sampling day (i.e. 19 to 21 July 2018). Fluctuation in suspended solids levels were observed during some monitoring days, which were considered to be due to natural seasonal variations upon careful review. The above is supported by the fluctuations of SS levels recorded across all stations, including control stations and monitoring stations in Zone B on 19 and 20 July 2018 as well as rounds 1 and 2 of monitoring survey events on 21 July 2018. Also, exceedance of SS levels were recorded on 19 July in Zone B, when no jetting was conducted at all throughout the day (and had not been conducted for a week prior due to adverse weather stopping works on 12 July). Results of monitoring data in round 3 of 21 July 2018 show exceedances at impact and gradient stations but not the control stations. Project works may therefore have contributed to some of the recorded SS exceedance and works subsequently stopped.

ENVIRONMENTAL NON-CONFORMANCES

5.1 SUMMARY OF ENVIRONMENTAL EXCEEDANCE

5

Although there were no exceedance from the *in situ* data collected, exceedances were recorded daily during the monitoring period for suspended solids on 19, 20 and 21 July. Three Notification of Exceedances (NOEs) with detailed investigation reports were issued to EPD and AFCD during the reporting period regarding these daily exceedances of Action and Limit Levels.

Results of monitoring data in round 3 of 21 July 2018 show exceedances at impact and gradient stations but not the control stations. Project works may therefore have contributed to some of the recorded SS exceedance and works subsequently stopped.

The exceedances were examined against the Project works in the NOEs. Results of detailed investigations for NOEs dated 19 and 20 July 2018 indicated:

- Exceedance of suspended solids were recorded throughout the day, regardless of the presence / absence of cable burial operation (exceedance recorded on 19 July 2018 when no cable burial operation works was conducted throughout the day or had been undertaken for a week prior due to adverse weather). The recorded exceedances were therefore deemed to be due to natural fluctuations;
- Exceedances of suspended solids were recorded at control stations and monitoring stations. In some survey events, recorded levels of suspended solids at monitoring stations further away were higher than those closer to the cable laying work front. The recorded exceedances were therefore considered not to be contributed by the project works.

The Contractors have been made aware by the ET of the exceedances that have recently occurred and requested to take care to ensure all necessary procedures are followed to avoid the Project impacting the water environment.

5.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance events were recorded during the reporting period due to the Project.

5.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaints were received during the reporting period.

5.4 SUMMARY OF ENVIRONMENTAL SUMMONS AND PROSECUTION

No summons or prosecution on environmental matters were received during the reporting period.

6 FUTURE KEY ISSUES

6.1 KEY ISSUES FOR THE COMING WEEK

There are no key issue identified.

Over the next monitoring period (24 to 31 July), installation works are expected to resume within Zone B and potentially complete the section within Zone B.

6.2 MONITORING SCHEDULE FOR THE COMING WEEKS

The water quality impact monitoring will continue during all days when cable installation is carried out or anticipated to be carried out, subject to weather conditions, until completion of cable burial works within B for *Phase 2 Submarine Cable Installation*.

17

7 CONCLUSIONS

This Weekly Impact Monitoring Report presents the EM&A water quality work undertaken during the period from 17 to 23 July 2018 in accordance with the *Annex G* of *the Project Profile* and the requirements under EP-539/2017.

No non-compliance events were recorded during the reporting week due to the Project.

There were daily exceedances of Action and Limit Levels for suspended solids. Results of monitoring data in round 3 of 21 July 2018 show that Project works may have contributed to some of the recorded SS exceedance and works subsequently stopped. For other rounds of survey on 21 July 2018 as well as on 19 and 20 July 2018, none of the exceedances recorded were attributed to the Project construction works as detailed below:

- Exceedance of suspended solids were recorded throughout the day, regardless of the presence / absence of cable burial operation (exceedance recorded on 19 July 2018 when no cable burial operation works was conducted throughout the day). The recorded exceedances were therefore deemed to be due to natural fluctuations;
- Exceedances of suspended solids were recorded at control stations and monitoring stations. In some survey events, recorded levels of suspended solids at monitoring stations further away were higher than those closer to the cable laying work front. The recorded exceedances were therefore considered not to be contributed by the project works.

The Contractors have been informed by the ET of the exceedances that have recently occurred and requested to take care to ensure all necessary procedures are followed to avoid the Project impacting the water environment.

No complaints and summons/prosecution were received during the reporting week.

The ET will keep track of the WQ impact monitoring programme to verify compliance of environmental requirements and the proper implementation of necessary mitigation measures.

Annex A

Calibration Reports of Multi-parameter Sensor



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com

Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No.

AH060169

Date of Issue

28 June 2018

Page No.

1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd. Flat 2207, Yu Fun House, Yu Chui Court, Shatin New Territories, Hong Kong

Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI ProDSS (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

16H104233

Date of Received

Jun 27, 2018

Date of Calibration

Jun 27, 2018 to Jun 27, 2018

Date of Next Calibration(a)

Sep 27, 2018

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Parameter

Reference Method

pH at 25°C

APHA 21e 4500-H+ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B APHA 21e 2130 B

Turbidity Temperature

Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance(e)(pH Unit)	Results
4.00	3.96	-0.04	Satisfactory
7.42	7.44	0.02	Satisfactory
10.01	10.11	0.10	Satisfactory

Tolerance of pH should be less than ±0.10 (pH unit)

(2) Temperature

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)	Results
12.6	12.5	-0.1	Satisfactory
37.4	37.5	0.1	Satisfactory
62.7	61.5	-1.2	Satisfactory

Tolerance limit of temperature should be less than ±2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

The results relate only to the calibrated equipment as received

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source. "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by QPT or quoted form relevant international standards.

APPROVED SIGNATORY:

LAM Ho-yee, Emma Assistant Laboratory Manager



專業化驗有限公司

QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.00	0.03	0.03	Satisfactory
4.37	4.46	0.09	Satisfactory
5.96	6.10	0.14	Satisfactory
7.34	7.36	0.02	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.20 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (μS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	150.0	2.1	Satisfactory
0.01	1412	1398	-1.0	Satisfactory
0.1	12890	12724	-1.3	Satisfactory
0.5	58670	58012	-1.1	Satisfactory
1.0	111900	110847	-0.9	Satisfactory

Tolerance limit of conductivity should be less than ±10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.97	-0.3	Satisfactory
20	20.14	0.7	Satisfactory
30	30.28	0.9	Satisfactory

Tolerance limit of salinity should be less than ± 10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.1		824
10	10.16	1.6	Satisfactory
20	20.19	1.0	Satisfactory
100	98.84	-1.2	Satisfactory
800	793.16	-0.9	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

Remark(s): -

[~] END OF REPORT ~

 [&]quot;Displayed Reading" presents the figures shown on item under calibration/ checking regardless of equipment precision or significant figures.
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OUALITY PRO TEST-CONSULT LIMITED

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No.

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Date of Issue

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Page No.

: 1 of 2

PART A - CUSTOMER INFORMATION

Enovative Environmental Service Ltd.

Flat 2207, Yu Fun House, Yu Chui Court, Shatin

New Territories, Hong Kong

Attn: Mr. Thomas WONG

PART B - DESCRIPTION

Name of Equipment

YSI ProDSS (Multi-Parameters)

Manufacturer

YSI (a xylem brand)

Serial Number

17E100747

Date of Received

Jun 27, 2018

Date of Calibration

Jun 27, 2018 to Jun 27, 2018

Date of Next Calibration(a)

Sep 27, 2018

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Parameter</u>

Reference Method

pH at 25°C

APHA 21e 4500-H+ B APHA 21e 4500-O G

Dissolved Oxygen Conductivity at 25°C

APHA 21e 2510 B

Salinity

APHA 21e 2520 B

Turbidity

APHA 21e 2130 B

Temperature

Section 6 of international Accreditation New Zealand Technical

Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

PART D - CALIBRATION RESULTS(b,c)

(1) pH at 25°C

Target (pH unit)	Displayed Reading(d) (pH Unit)	Tolerance ^(e) (pH Unit)	Results
4.00	3.97	-0.03	Satisfactory
7.42	7.40	-0.02	Satisfactory
10.01	10.00	-0.01	Satisfactory

Tolerance of pH should be less than ±0.10 (pH unit)

(2) Temperature

Reading of Ref. thermometer	Displayed Reading (°C)	Tolerance (°C)	Results
12.6	12.3	-0.3	Satisfactory
37.4	37.5	0.1	Satisfactory
62.7	61.4	-1.3	Satisfactory

Tolerance limit of temperature should be less than ±2.0 (°C)

~ CONTINUED ON NEXT PAGE ~

Remark(s): -

The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted form relevant international standards.

The results relate only to the calibrated equipment as received

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

"Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.

The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by QPT or quoted form relevant international standards.

APPROVED SIGNATORY:

LAM Ho-yee, Emma Assistant Laboratory Manager



專業化驗有限公司 QUALITY PRO TEST-CONSULT LIMITED

Unit 10, 14/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong Email: info@qualityprotest.com; Website: www.qualityprotest.com Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Report No.

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PART D - CALIBRATION RESULTS (Cont'd)

(3) Dissolved Oxygen

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)	Results
0.00	0.02	0.02	Satisfactory
4.37	4.41	0.04	Satisfactory
5.96	6.12	0.16	Satisfactory
7.34	7.41	0.07	Satisfactory

Tolerance limit of dissolved oxygen should be less than ±0.20 (mg/L)

(4) Conductivity at 25°C

Conc. of KCl (M)	Expected Reading (µS/cm)	Displayed Reading (μS/cm)	Tolerance (%)	Results
0.001	146.9	148.0	0.7	Satisfactory
0.01	1412	1438	1.8	Satisfactory
0.1	12890	12696	-1.5	Satisfactory
0.5	58670	57876	-1.4	Satisfactory
1.0	111900	111059	-0.8	Satisfactory

Tolerance limit of conductivity should be less than ± 10.0 (%)

(5) Salinity

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)	Results
10	9.99	-0.1	Satisfactory
20	20.09	0.4	Satisfactory
30	30.22	0.7	Satisfactory

Tolerance limit of salinity should be less than ±10.0 (%)

(6) Turbidity

Expected Reading (NTU)	Displayed Reading ^(f) (NTU)	Tolerance ^(g) (%)	Results
0	0.00		
10	10.14	1.4	Satisfactory
20	20.30	1.5	Satisfactory
100	101.67	1.7	Satisfactory
800	818.83	2.4	Satisfactory

Tolerance limit of turbidity should be less than ± 10.0 (%)

~ END OF REPORT ~

Remark(s): -

⁽Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

^(#) The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

Annex B

QA/QC Results of Laboratory Testing for Suspended Solids

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 9

Contact : MR THOMAS WONG Contact : Richard Fung Work Order : HK1838436

Address FLAT 2207, YU FUN HSE, YU CHUI COURT, SHATIN, Address 11/F., Chung Shun Knitting Centre, 1 - 3

N.T. HONG KONG Wing Yip Street, Kwai Chung, N.T.,

Hong Kong

 Telephone
 : -- Telephone
 : +852 2610 1044

 Facsimile
 : -- Facsimile
 : +852 2610 2021

Project : PACIFIC LIGHT CABLE NETWORK Quote number : HKE/1254/2018 Date received : 19-Jul-2018

(PLCN) - DEEP WATER BAY

Date of issue : 24-Jul-2018

Site : — - Analysed : 132

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This document has been signed by those names that appear on this report and are the authorised signatories.

the testing laboratory.

Signatory Position Authorised results for:

Fung Lim Chee, Richard General Manager Inorganics

Page Number : 2 of 9

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1838436

ALS

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1838436 supersedes any previous reports with this reference. Testing period is from 19-Jul-2018 to 24-Jul-2018. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific Comments for Work Order HK1838436:

Sample(s) were received in chilled condition.

Water sample(s) analysed and reported on as received basis.

The accredited LOR of Total Suspended Solids is 0.5mg/L when 2 Litres sample was used. Due to insufficient sample, the results below 2mg/L and the decimal value of the results reported are for reference only.

Page Number : 3 of 9

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1838436



Analytical Results

Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
E2/R1/ S	19-Jul-2018	HK1838436-001	8.5	 	
E2/R1/ S Duplicate	19-Jul-2018	HK1838436-002	9.4	 	
E2/R1/ M	19-Jul-2018	HK1838436-003	10.9	 	
E2/R1/ M Duplicate	19-Jul-2018	HK1838436-004	10.0	 	
E2/R1/ B	19-Jul-2018	HK1838436-005	10.9	 	
E2/R1/ B Duplicate	19-Jul-2018	HK1838436-006	12.0	 	
F2/R1/ S	19-Jul-2018	HK1838436-007	4.7	 	
F2/R1/ S Duplicate	19-Jul-2018	HK1838436-008	5.4	 	
F2/R1/ M	19-Jul-2018	HK1838436-009	5.1	 	
F2/R1/ M Duplicate	19-Jul-2018	HK1838436-010	5.7	 	
F2/R1/ B	19-Jul-2018	HK1838436-011	6.3	 	
F2/R1/ B Duplicate	19-Jul-2018	HK1838436-012	6.4	 	
C6/R1/ S	19-Jul-2018	HK1838436-013	3.9	 	
C6/R1/ S Duplicate	19-Jul-2018	HK1838436-014	4.8	 	
C6/R1/ M	19-Jul-2018	HK1838436-015	5.1	 	
C6/R1/ M Duplicate	19-Jul-2018	HK1838436-016	6.2	 	
C6/R1/ B	19-Jul-2018	HK1838436-017	5.6	 	
C6/R1/ B Duplicate	19-Jul-2018	HK1838436-018	6.5	 	
C7/R1/ S	19-Jul-2018	HK1838436-019	6.4	 	
C7/R1/ S Duplicate	19-Jul-2018	HK1838436-020	6.9	 	
C7/R1/ M	19-Jul-2018	HK1838436-021	6.9	 	
C7/R1/ M Duplicate	19-Jul-2018	HK1838436-022	7.0	 	
C7/R1/ B	19-Jul-2018	HK1838436-023	8.3	 	
C7/R1/ B Duplicate	19-Jul-2018	HK1838436-024	7.8	 	
C8/R1/ S	19-Jul-2018	HK1838436-025	3.7	 	
C8/R1/ S Duplicate	19-Jul-2018	HK1838436-026	4.1	 	
C8/R1/ M	19-Jul-2018	HK1838436-027	6.5	 	
C8/R1/ M Duplicate	19-Jul-2018	HK1838436-028	6.5	 	
C8/R1/ B	19-Jul-2018	HK1838436-029	8.4	 	
C8/R1/ B Duplicate	19-Jul-2018	HK1838436-030	7.6	 	
C9/R1/ S	19-Jul-2018	HK1838436-031	9.4	 	

Page Number : 4 of 9

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Client sample (I)	Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
Agriculture			LOR Unit	0.5 mg/L	 	
CBRT18 Duplicabe	Client sample ID	, ,			 	
CREY M Diplicate 19-Jul-2018 HK1838436-033 9.7				0.2		
CRRY M Duplectete 19_Jul-2018	·					
CRR1/B 19_Jul-2018						
CRRY D Diplicate 19-Jul-2018 HK1838436-036 9.5	•					
C11/Rt/15 Duplicate 19-Jul-2018 HK1838436-038 4.0		1 11 11				
C11RT1 S Duplicate 19-Jul-2018 HK1838436-038 4.0	•					
C11/R1/I M Diplicate	C11/R1/ S					
C11/RT M Duplicate 19-Jul-2018	C11/R1/ S Duplicate					
C11Rt1/B Duplicate	C11/R1/ M					
C11Rr1 / Duplicate 19-Jul-2018 HK1838436-042 6.9	C11/R1/ M Duplicate				 	
C13/R1/S 19-Jul-2018 HK1838436-043 4.0	C11/R1/ B	1 1 1 1 1			 	
C13RR1/5 Duplicate 19-Jul-2018	C11/R1/ B Duplicate				 	
C13/R1/M 19-Jul-2018 HK1838436-045 5.0	C13/R1/ S	19-Jul-2018	HK1838436-043	4.0	 	
C13/R1/M Duplicate 19-Jul-2018 HK1838436-046 6.0	C13/R1/ S Duplicate	19-Jul-2018	HK1838436-044	5.2	 	
C13/R1/B	C13/R1/ M	19-Jul-2018	HK1838436-045	5.0	 	
C13/R1/8 Duplicate 19-Jul-2018 HK1838436-048 5.8 G2/R1/S 19-Jul-2018 HK1838436-049 4.8 G2/R1/S Duplicate 19-Jul-2018 HK1838436-050 3.7 G2/R1/M 19-Jul-2018 HK1838436-051 6.2 G2/R1/M Duplicate 19-Jul-2018 HK1838436-052 5.8 G2/R1/B 19-Jul-2018 HK1838436-053 7.1 G2/R1/B 19-Jul-2018 HK1838436-053 7.1 G3/R1/S 19-Jul-2018 HK1838436-055 4.1 G3/R1/S 19-Jul-2018 HK1838436-055 4.1 G3/R1/M 19-Jul-2018 HK1838436-056 4.0 G3/R1/M 19-Jul-2018 HK1838436-057 4.7 G3/R1/M 19-Jul-2018 HK1838436-059 5.2 G3/R1/B 19-Jul-2018 HK1838436-059 5.2 M3/R1/S 19-Jul-2018 HK1838436-060 4.9 M3/R1/S 19-Jul-2018 HK1838436-060 4.9 M3/R1/S 19-Jul-2018 HK1838436-060 4.9 M3/R1/S 19-Jul-2018 HK1838436-062 4.4 M3/R1/S M19-Jul-2018 HK1838436-062 4.4 .	C13/R1/ M Duplicate	19-Jul-2018	HK1838436-046	6.0	 	
G2/R1/S 19-Jul-2018 HK1838436-049 4.8 <td>C13/R1/ B</td> <td>19-Jul-2018</td> <td>HK1838436-047</td> <td>6.9</td> <td> </td> <td> </td>	C13/R1/ B	19-Jul-2018	HK1838436-047	6.9	 	
G2/R1/ S Duplicate 19-Jul-2018 HK1838436-050 3.7	C13/R1/ B Duplicate	19-Jul-2018	HK1838436-048	5.8	 	
G2/R1/ M 19-Jul-2018 HK1838436-051 6.2	G2/R1/ S	19-Jul-2018	HK1838436-049	4.8	 	
G2/R1/ M Duplicate 19-Jul-2018	G2/R1/ S Duplicate	19-Jul-2018	HK1838436-050	3.7	 	
G2/R1/ B 19-Jul-2018 HK1838436-053 7.1	G2/R1/ M	19-Jul-2018	HK1838436-051	6.2	 	
G2/R1/ B Duplicate 19-Jul-2018 HK1838436-054 8.0	G2/R1/ M Duplicate	19-Jul-2018	HK1838436-052	5.8	 	
G3/R1/S 19-Jul-2018 HK1838436-055 4.1 G3/R1/S Duplicate 19-Jul-2018 HK1838436-056 4.0	G2/R1/ B	19-Jul-2018	HK1838436-053	7.1	 	
G3/R1/ S Duplicate 19-Jul-2018 HK1838436-056 4.0	G2/R1/ B Duplicate	19-Jul-2018	HK1838436-054	8.0	 	
G3/R1/ M 19-Jul-2018 HK1838436-057 4.7	G3/R1/ S	19-Jul-2018	HK1838436-055	4.1	 	
G3/R1/ M 19-Jul-2018		19-Jul-2018	HK1838436-056	4.0	 	
G3/R1/ M Duplicate 19-Jul-2018 HK1838436-058 4.6 G3/R1/ B 19-Jul-2018 HK1838436-059 5.2 G3/R1/ B Duplicate 19-Jul-2018 HK1838436-060 5.6 M3/R1/ S 19-Jul-2018 HK1838436-061 4.9 M3/R1/ S Duplicate 19-Jul-2018 HK1838436-062 4.4 M3/R1/ M 19-Jul-2018 HK1838436-063 5.2	·	19-Jul-2018	HK1838436-057	4.7	 	
G3/R1/ B 19-Jul-2018 HK1838436-059 5.2		19-Jul-2018	HK1838436-058	4.6	 	
G3/R1/ B Duplicate 19-Jul-2018 HK1838436-060 5.6	•	19-Jul-2018	HK1838436-059	5.2	 	
M3/R1/ S 19-Jul-2018 HK1838436-061 4.9 M3/R1/ S Duplicate 19-Jul-2018 HK1838436-062 4.4		19-Jul-2018	HK1838436-060	5.6	 	
M3/R1/ S Duplicate 19-Jul-2018 HK1838436-062 4.4	·	19-Jul-2018	HK1838436-061	4.9	 	
M3/R1/ M 19-Jul-2018 HK1838436-063 5.2			HK1838436-062	4.4	 	
40 1 10040 11/(400400 004	·			5.2	 	
M3/R1/ M Duplicate 19-Jul-2018 HK1838436-064 5.5		19-Jul-2018	HK1838436-064	5.5	 	

Page Number : 5 of 9

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
·	/ time	ID	Aggregate Properties		
M3/R1/ B	19-Jul-2018	HK1838436-065	6.2	 	
M3/R1/ B Duplicate	19-Jul-2018	HK1838436-066	5.8	 	
E2/R2/ S	19-Jul-2018	HK1838436-067	7.0	 	
E2/R2/ S Duplicate	19-Jul-2018	HK1838436-068	8.2	 	
E2/R2/ M	19-Jul-2018	HK1838436-069	8.2	 	
E2/R2/ M Duplicate	19-Jul-2018	HK1838436-070	8.8	 	
E2/R2/ B	19-Jul-2018	HK1838436-071	8.9	 	
E2/R2/ B Duplicate	19-Jul-2018	HK1838436-072	9.6	 	
F2/R2/ S	19-Jul-2018	HK1838436-073	3.4	 	
F2/R2/ S Duplicate	19-Jul-2018	HK1838436-074	4.5	 	
F2/R2/ M	19-Jul-2018	HK1838436-075	4.9	 	
F2/R2/ M Duplicate	19-Jul-2018	HK1838436-076	5.9	 	
F2/R2/ B	19-Jul-2018	HK1838436-077	6.0	 	
F2/R2/ B Duplicate	19-Jul-2018	HK1838436-078	7.0	 	
C6/R2/ S	19-Jul-2018	HK1838436-079	3.5	 	
C6/R2/ S Duplicate	19-Jul-2018	HK1838436-080	4.2	 	
C6/R2/ M	19-Jul-2018	HK1838436-081	4.8	 	
C6/R2/ M Duplicate	19-Jul-2018	HK1838436-082	4.6	 	
C6/R2/ B	19-Jul-2018	HK1838436-083	5.6	 	
C6/R2/ B Duplicate	19-Jul-2018	HK1838436-084	6.1	 	
C7/R2/ S	19-Jul-2018	HK1838436-085	4.0	 	
C7/R2/ S Duplicate	19-Jul-2018	HK1838436-086	3.0	 	
C7/R2/ M	19-Jul-2018	HK1838436-087	3.6	 	
C7/R2/ M Duplicate	19-Jul-2018	HK1838436-088	4.7	 	
C7/R2/ B	19-Jul-2018	HK1838436-089	4.9	 	
C7/R2/ B Duplicate	19-Jul-2018	HK1838436-090	4.8	 	
C8/R2/ S	19-Jul-2018	HK1838436-091	4.7	 	
C8/R2/ S Duplicate	19-Jul-2018	HK1838436-092	5.3	 	
C8/R2/ M	19-Jul-2018	HK1838436-093	5.6	 	
C8/R2/ M Duplicate	19-Jul-2018	HK1838436-094	6.6	 	
C8/R2/ B	19-Jul-2018	HK1838436-095	6.2	 	
C8/R2/ B Duplicate	19-Jul-2018	HK1838436-096	6.9	 	
C9/R2/ S	19-Jul-2018	HK1838436-097	4.1	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
C9/R2/ S Duplicate	19-Jul-2018	HK1838436-098	5.0	 	
C9/R2/ M	19-Jul-2018	HK1838436-099	5.2	 	
C9/R2/ M Duplicate	19-Jul-2018	HK1838436-100	6.2	 	
C9/R2/ B	19-Jul-2018	HK1838436-101	7.0	 	
C9/R2/ B Duplicate	19-Jul-2018	HK1838436-102	7.5	 	
C11/R2/ S	19-Jul-2018	HK1838436-103	3.0	 	
C11/R2/ S Duplicate	19-Jul-2018	HK1838436-104	4.1	 	
C11/R2/ M	19-Jul-2018	HK1838436-105	3.7	 	
C11/R2/ M Duplicate	19-Jul-2018	HK1838436-106	4.4	 	
C11/R2/ B	19-Jul-2018	HK1838436-107	5.1	 	
C11/R2/ B Duplicate	19-Jul-2018	HK1838436-108	5.4	 	
C13/R2/ S	19-Jul-2018	HK1838436-109	3.8	 	
C13/R2/ S Duplicate	19-Jul-2018	HK1838436-110	2.0	 	
C13/R2/ M	19-Jul-2018	HK1838436-111	3.4	 	
C13/R2/ M Duplicate	19-Jul-2018	HK1838436-112	4.3	 	
C13/R2/ B	19-Jul-2018	HK1838436-113	4.5	 	
C13/R2/ B Duplicate	19-Jul-2018	HK1838436-114	5.1	 	
G2/R2/ S	19-Jul-2018	HK1838436-115	5.2	 	
G2/R2/ S Duplicate	19-Jul-2018	HK1838436-116	6.2	 	
G2/R2/ M	19-Jul-2018	HK1838436-117	6.7	 	
G2/R2/ M Duplicate	19-Jul-2018	HK1838436-118	7.4	 	
G2/R2/ B	19-Jul-2018	HK1838436-119	7.7	 	
G2/R2/ B Duplicate	19-Jul-2018	HK1838436-120	6.8	 	
G3/R2/ S	19-Jul-2018	HK1838436-121	6.5	 	
G3/R2/ S Duplicate	19-Jul-2018	HK1838436-122	6.1	 	
G3/R2/ M	19-Jul-2018	HK1838436-123	7.1	 	
G3/R2/ M Duplicate	19-Jul-2018	HK1838436-124	6.8	 	
G3/R2/ B	19-Jul-2018	HK1838436-125	7.9	 	
G3/R2/ B Duplicate	19-Jul-2018	HK1838436-126	8.1	 	
M3/R2/ S	19-Jul-2018	HK1838436-127	6.4	 	
M3/R2/ S Duplicate	19-Jul-2018	HK1838436-128	5.3	 	
M3/R2/ M	19-Jul-2018	HK1838436-129	7.4	 	
M3/R2/ M Duplicate	19-Jul-2018	HK1838436-130	6.3	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended	 	
			Solids (SS)		
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
M3/R2/ B	19-Jul-2018	HK1838436-131	8.4	 	
M3/R2/ B Duplicate	19-Jul-2018	HK1838436-132	7.9	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1838436



Laboratory Duplicate (DUP) Report

Matrix: WATER					I	Laboratory Duplicate (DUP) R	Report	
Laboratory	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
sample ID								
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817937)						
HK1838436-001	E2/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	8.5	8.4	1.78
HK1838436-011	F2/R1/ B	EA025: Suspended Solids (SS)		0.5	mg/L	6.3	7.0	11.2
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817938)						
HK1838436-021	C7/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	6.9	7.7	10.6
HK1838436-031	C9/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	9.4	8.4	11.3
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817939)						
HK1838436-041	C11/R1/B	EA025: Suspended Solids (SS)		0.5	mg/L	5.9	7.1	18.5
HK1838436-051	G2/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	6.2	5.6	11.5
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817940)	·					
HK1838436-061	M3/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	4.9	5.2	4.98
HK1838436-071	E2/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	8.9	9.0	1.67
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817941)						
HK1838436-081	C6/R2/ M	EA025: Suspended Solids (SS)		0.5	mg/L	4.8	5.5	13.5
HK1838436-091	C8/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	4.7	5.8	20.5
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817942)	·					
HK1838436-101	C9/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	7.0	6.7	3.65
HK1838436-111	C13/R2/ M	EA025: Suspended Solids (SS)		0.5	mg/L	3.4	3.9	14.4
EA/ED: Physical a	nd Aggregate Properties	s (QC Lot: 1817943)						
HK1838436-121	G3/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	6.5	5.6	14.0
HK1838436-131	M3/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	8.4	7.8	7.09

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

		-									
Matrix: WATER			Method Blank (MB)) Report		Laboratory Contro	ol Spike (LCS) and Laborat	ory Control Sp	ike Duplicate (L	OCS) Report	
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLo	t: 1817937)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	112		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	t: 1817938)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	t: 1817939)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	97.0		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	t: 1817940)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	106		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 1817941)											

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1838436



Matrix: WATER	Method Blank (MB) Report			B) Report	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs	; (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
A/ED: Physical and Aggregate Properties (QCLot: 1817941) - continued											
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	106		85	115		
EA/ED: Physical and Aggregate Properties (QC	Lot: 1817942)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 1817943)											
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	104		85	115		

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

• No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD Laboratory : ALS Technichem (HK) Pty Ltd Page : 1 of 9

Contact : MR THOMAS WONG Contact : Richard Fung Work Order : HK1839270

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Project : PACIFIC LIGHT CABLE NETWORK Quote number : HKE/1254/2018 Date received : 20-Jul-2018

(PLCN) - DEEP WATER BAY

Order number : — Date of issue : 24-Jul-2018

C-O-C number : — No. of samples - Received : 132

Site : — - Analysed : 132

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This document has been signed by those names that appear on this report and are the authorised signatories.

the testing laboratory.

Signatory Position Authorised results for:

Fung Lim Chee, Richard General Manager Inorganics

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839270



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1839270 supersedes any previous reports with this reference. Testing period is from 20-Jul-2018 to 24-Jul-2018. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific Comments for Work Order HK1839270:

Sample(s) were received in chilled condition.

Water sample(s) analysed and reported on as received basis.

The accredited LOR of Total Suspended Solids is 0.5mg/L when 2 Litres sample was used. Due to insufficient sample, the results below 2mg/L and the decimal value of the results reported are for reference only.

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839270



Analytical Results

Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
E2/R1/ S	20-Jul-2018	HK1839270-001	1.4	 	
E2/R1/ S Duplicate	20-Jul-2018	HK1839270-002	2.1	 	
E2/R1/ M	20-Jul-2018	HK1839270-003	1.7	 	
E2/R1/ M Duplicate	20-Jul-2018	HK1839270-004	2.2	 	
E2/R1/ B	20-Jul-2018	HK1839270-005	3.2	 	
E2/R1/ B Duplicate	20-Jul-2018	HK1839270-006	2.7	 	
F2/R1/ S	20-Jul-2018	HK1839270-007	2.2	 	
F2/R1/ S Duplicate	20-Jul-2018	HK1839270-008	2.1	 	
F2/R1/ M	20-Jul-2018	HK1839270-009	3.4	 	
F2/R1/ M Duplicate	20-Jul-2018	HK1839270-010	2.7	 	
F2/R1/ B	20-Jul-2018	HK1839270-011	3.1	 	
F2/R1/ B Duplicate	20-Jul-2018	HK1839270-012	3.6	 	
C6/R1/ S	20-Jul-2018	HK1839270-013	2.1	 	
C6/R1/ S Duplicate	20-Jul-2018	HK1839270-014	2.1	 	
C6/R1/ M	20-Jul-2018	HK1839270-015	3.8	 	
C6/R1/ M Duplicate	20-Jul-2018	HK1839270-016	2.6	 	
C6/R1/ B	20-Jul-2018	HK1839270-017	3.4	 	
C6/R1/ B Duplicate	20-Jul-2018	HK1839270-018	4.3	 	
C7/R1/ S	20-Jul-2018	HK1839270-019	1.5	 	
C7/R1/ S Duplicate	20-Jul-2018	HK1839270-020	1.9	 	
C7/R1/ M	20-Jul-2018	HK1839270-021	3.2	 	
C7/R1/ M Duplicate	20-Jul-2018	HK1839270-022	2.3	 	
C7/R1/ B	20-Jul-2018	HK1839270-023	3.4	 	
C7/R1/ B Duplicate	20-Jul-2018	HK1839270-024	4.1	 	
C8/R1/ S	20-Jul-2018	HK1839270-025	2.0	 	
C8/R1/ S Duplicate	20-Jul-2018	HK1839270-026	1.7	 	
C8/R1/ M	20-Jul-2018	HK1839270-027	2.8	 	
C8/R1/ M Duplicate	20-Jul-2018	HK1839270-028	2.2	 	
C8/R1/ B	20-Jul-2018	HK1839270-029	3.6	 	
C8/R1/ B Duplicate	20-Jul-2018	HK1839270-030	4.0	 	
C9/R1/ S	20-Jul-2018	HK1839270-031	3.4	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
C9/R1/ S Duplicate	20-Jul-2018	HK1839270-032	4.2	 	
C9/R1/ M	20-Jul-2018	HK1839270-033	4.6	 	
C9/R1/ M Duplicate	20-Jul-2018	HK1839270-034	4.1	 	
C9/R1/ B	20-Jul-2018	HK1839270-035	5.2	 	
C9/R1/ B Duplicate	20-Jul-2018	HK1839270-036	5.1	 	
C11/R1/ S	20-Jul-2018	HK1839270-037	3.7	 	
C11/R1/ S Duplicate	20-Jul-2018	HK1839270-038	3.8	 	
C11/R1/ M	20-Jul-2018	HK1839270-039	3.9	 	
C11/R1/ M Duplicate	20-Jul-2018	HK1839270-040	4.1	 	
C11/R1/ B	20-Jul-2018	HK1839270-041	4.0	 	
C11/R1/ B Duplicate	20-Jul-2018	HK1839270-042	4.6	 	
C13/R1/ S	20-Jul-2018	HK1839270-043	3.5	 	
C13/R1/ S Duplicate	20-Jul-2018	HK1839270-044	4.5	 	
C13/R1/ M	20-Jul-2018	HK1839270-045	5.1	 	
C13/R1/ M Duplicate	20-Jul-2018	HK1839270-046	5.3	 	
C13/R1/ B	20-Jul-2018	HK1839270-047	5.7	 	
C13/R1/ B Duplicate	20-Jul-2018	HK1839270-048	5.0	 	
G2/R1/ S	20-Jul-2018	HK1839270-049	5.6	 	
G2/R1/ S Duplicate	20-Jul-2018	HK1839270-050	5.2	 	
G2/R1/ M	20-Jul-2018	HK1839270-051	5.4	 	
G2/R1/ M Duplicate	20-Jul-2018	HK1839270-052	5.9	 	
G2/R1/ B	20-Jul-2018	HK1839270-053	5.7	 	
G2/R1/ B Duplicate	20-Jul-2018	HK1839270-054	6.0	 	
G3/R1/ S	20-Jul-2018	HK1839270-055	3.2	 	
G3/R1/ S Duplicate	20-Jul-2018	HK1839270-056	3.6	 	
G3/R1/ M	20-Jul-2018	HK1839270-057	4.6	 	
G3/R1/ M Duplicate	20-Jul-2018	HK1839270-058	4.7	 	
G3/R1/ B	20-Jul-2018	HK1839270-059	5.1	 	
G3/R1/ B Duplicate	20-Jul-2018	HK1839270-060	4.6	 	
M3/R1/ S	20-Jul-2018	HK1839270-061	3.2	 	
M3/R1/ S Duplicate	20-Jul-2018	HK1839270-062	4.1	 	
M3/R1/ M	20-Jul-2018	HK1839270-063	4.3	 	
M3/R1/ M Duplicate	20-Jul-2018	HK1839270-064	5.4	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
M3/R1/ B	20-Jul-2018	HK1839270-065	5.6	 	
M3/R1/ B Duplicate	20-Jul-2018	HK1839270-066	4.7	 	
E2/R2/ S	20-Jul-2018	HK1839270-067	3.8	 	
E2/R2/ S Duplicate	20-Jul-2018	HK1839270-068	3.5	 	
E2/R2/ M	20-Jul-2018	HK1839270-069	4.3	 	
E2/R2/ M Duplicate	20-Jul-2018	HK1839270-070	4.3	 	
E2/R2/ B	20-Jul-2018	HK1839270-071	4.6	 	
E2/R2/ B Duplicate	20-Jul-2018	HK1839270-072	4.9	 	
F2/R2/ S	20-Jul-2018	HK1839270-073	4.6	 	
F2/R2/ S Duplicate	20-Jul-2018	HK1839270-074	4.0	 	
F2/R2/ M	20-Jul-2018	HK1839270-075	4.2	 	
F2/R2/ M Duplicate	20-Jul-2018	HK1839270-076	4.9	 	
F2/R2/ B	20-Jul-2018	HK1839270-077	6.2	 	
F2/R2/ B Duplicate	20-Jul-2018	HK1839270-078	5.1	 	
C6/R2/ S	20-Jul-2018	HK1839270-079	4.5	 	
C6/R2/ S Duplicate	20-Jul-2018	HK1839270-080	3.7	 	
C6/R2/ M	20-Jul-2018	HK1839270-081	4.7	 	
C6/R2/ M Duplicate	20-Jul-2018	HK1839270-082	4.2	 	
C6/R2/ B	20-Jul-2018	HK1839270-083	5.2	 	
C6/R2/ B Duplicate	20-Jul-2018	HK1839270-084	4.4	 	
C7/R2/ S	20-Jul-2018	HK1839270-085	4.7	 	
C7/R2/ S Duplicate	20-Jul-2018	HK1839270-086	4.8	 	
C7/R2/ M	20-Jul-2018	HK1839270-087	5.7	 	
C7/R2/ M Duplicate	20-Jul-2018	HK1839270-088	4.7	 	
C7/R2/ B	20-Jul-2018	HK1839270-089	5.9	 	
C7/R2/ B Duplicate	20-Jul-2018	HK1839270-090	6.3	 	
C8/R2/ S	20-Jul-2018	HK1839270-091	4.4	 	
C8/R2/ S Duplicate	20-Jul-2018	HK1839270-092	4.7	 	
C8/R2/ M	20-Jul-2018	HK1839270-093	5.3	 	
C8/R2/ M Duplicate	20-Jul-2018	HK1839270-094	6.2	 	
C8/R2/ B	20-Jul-2018	HK1839270-095	6.6	 	
C8/R2/ B Duplicate	20-Jul-2018	HK1839270-096	7.3	 	
C9/R2/ S	20-Jul-2018	HK1839270-097	3.1	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
C9/R2/ S Duplicate	20-Jul-2018	HK1839270-098	3.3	 	
C9/R2/ M	20-Jul-2018	HK1839270-099	3.7	 	
C9/R2/ M Duplicate	20-Jul-2018	HK1839270-100	3.3	 	
C9/R2/ B	20-Jul-2018	HK1839270-101	3.8	 	
C9/R2/ B Duplicate	20-Jul-2018	HK1839270-102	4.0	 	
C11/R2/ S	20-Jul-2018	HK1839270-103	2.8	 	
C11/R2/ S Duplicate	20-Jul-2018	HK1839270-104	1.9	 	
C11/R2/ M	20-Jul-2018	HK1839270-105	3.4	 	
C11/R2/ M Duplicate	20-Jul-2018	HK1839270-106	2.5	 	
C11/R2/ B	20-Jul-2018	HK1839270-107	3.2	 	
C11/R2/ B Duplicate	20-Jul-2018	HK1839270-108	3.6	 	
C13/R2/ S	20-Jul-2018	HK1839270-109	4.5	 	
C13/R2/ S Duplicate	20-Jul-2018	HK1839270-110	4.0	 	
C13/R2/ M	20-Jul-2018	HK1839270-111	4.4	 	
C13/R2/ M Duplicate	20-Jul-2018	HK1839270-112	4.9	 	
C13/R2/ B	20-Jul-2018	HK1839270-113	5.0	 	
C13/R2/ B Duplicate	20-Jul-2018	HK1839270-114	5.3	 	
G2/R2/ S	20-Jul-2018	HK1839270-115	2.7	 	
G2/R2/ S Duplicate	20-Jul-2018	HK1839270-116	2.2	 	
G2/R2/ M	20-Jul-2018	HK1839270-117	3.1	 	
G2/R2/ M Duplicate	20-Jul-2018	HK1839270-118	2.4	 	
G2/R2/ B	20-Jul-2018	HK1839270-119	3.2	 	
G2/R2/ B Duplicate	20-Jul-2018	HK1839270-120	4.0	 	
G3/R2/ S	20-Jul-2018	HK1839270-121	2.1	 	
G3/R2/ S Duplicate	20-Jul-2018	HK1839270-122	1.4	 	
G3/R2/ M	20-Jul-2018	HK1839270-123	1.8	 	
G3/R2/ M Duplicate	20-Jul-2018	HK1839270-124	2.3	 	
G3/R2/ B	20-Jul-2018	HK1839270-125	2.7	 	
G3/R2/ B Duplicate	20-Jul-2018	HK1839270-126	4.0	 	
M3/R2/ S	20-Jul-2018	HK1839270-127	2.7	 	
M3/R2/ S Duplicate	20-Jul-2018	HK1839270-128	1.8	 	
M3/R2/ M	20-Jul-2018	HK1839270-129	2.2	 	
M3/R2/ M Duplicate	20-Jul-2018	HK1839270-130	3.4	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended	 	
			Solids (SS)		
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
M3/R2/ B	20-Jul-2018	HK1839270-131	6.0	 	
M3/R2/ B Duplicate	20-Jul-2018	HK1839270-132	5.8	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839270



Laboratory Duplicate (DUP) Report

Matrix: WATER					I	aboratory Duplicate (DUP) R	eport .	
Laboratory	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
sample ID		•						
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821276)						
HK1839270-001	E2/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	1.4	1.5	0.00
HK1839270-011	F2/R1/ B	EA025: Suspended Solids (SS)		0.5	mg/L	3.1	2.8	11.9
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821277)						
HK1839270-021	C7/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	3.2	2.9	10.5
HK1839270-031	C9/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	3.4	3.6	4.26
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821278)						
HK1839270-041	C11/R1/ B	EA025: Suspended Solids (SS)		0.5	mg/L	4.0	4.2	6.73
HK1839270-051	G2/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	5.4	5.6	4.06
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821279)	·					
HK1839270-061	M3/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	3.2	3.3	0.00
HK1839270-071	E2/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	4.6	4.4	4.99
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821280)						
HK1839270-081	C6/R2/ M	EA025: Suspended Solids (SS)		0.5	mg/L	4.7	4.6	2.15
HK1839270-091	C8/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	4.4	4.0	10.1
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821281)						
HK1839270-101	C9/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	3.8	4.2	9.40
HK1839270-112	C13/R2/ M Duplicate	EA025: Suspended Solids (SS)		0.5	mg/L	4.9	4.4	9.68
EA/ED: Physical a	nd Aggregate Properties	(QC Lot: 1821282)						
HK1839270-121	G3/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	2.1	2.5	18.6
HK1839270-131	M3/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	6.0	5.7	5.57

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER			Method Blank (MB	l) Report		Laboratory Control	l Spike (LCS) and Laborat	ory Control Sp	ike Duplicate (I	DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPDs	s (%)
Method: Compound CAS N	umber L	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 182	21276)										
EA025: Suspended Solids (SS)	(0.5	mg/L	<0.5	20 mg/L	96.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 182	21277)										
EA025: Suspended Solids (SS)	(0.5	mg/L	<0.5	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 182	21278)										
EA025: Suspended Solids (SS)	(0.5	mg/L	<0.5	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 182	21279)										
EA025: Suspended Solids (SS)	(0.5	mg/L	<0.5	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 182	21280)										

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839270



Matrix: WATER			Method Blank (ME	3) Report		Laboratory Control	Spike (LCS) and Laborato	ry Control Sp	ike Duplicate (DCS) Report	
					Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs	: (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC	Lot: 1821280)	- continue	d								
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	103		85	115		
EA/ED: Physical and Aggregate Properties (QC	Lot: 1821281)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	105		85	115		
EA/ED: Physical and Aggregate Properties (QC	Lot: 1821282)										
EA025: Suspended Solids (SS)		0.5	mg/L	<0.5	20 mg/L	86.0		85	115		

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

• No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYICAL CHEMISTRY & TESTING SERVICES

Order number



CERTIFICATE OF ANALYSIS

· 1 of 11 Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD Laboratory : ALS Technichem (HK) Pty Ltd Page

HK1839913 Work Order Contact · MR THOMAS WONG Contact : Richard Fung

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· 21-Jul-2018 Project : PACIFIC LIGHT CABLE NETWORK Quote number : HKE/1254/2018 Date received

> (PLCN) - DEEP WATER BAY · 25-Jul-2018

198 C-O-C number No. of samples Received

198

Site - Analysed

This document has been signed by those names that appear on this report and are the authorised signatories. This report may not be reproduced except with prior written approval from

Position Authorised results for: Signatory the testing laboratory.

Fung Lim Chee, Richard **General Manager** Inorganics

Date of issue

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839913



Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK1839913 supersedes any previous reports with this reference. Testing period is from 21-Jul-2018 to 25-Jul-2018. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for process purposes. Abbreviations: CAS number = Chemical Abstract Services number. LOR = Limit of reporting.

Specific Comments for Work Order HK1839913:

Sample(s) were received in chilled condition.

Water sample(s) analysed and reported on as received basis.

The accredited LOR of Total Suspended Solids is 0.5mg/L when 2 Litres sample was used. Due to insufficient sample, the results below 2mg/L and the decimal value of the results reported are for reference only.

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839913



Analytical Results

Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
E2/R1/ S	21-Jul-2018	HK1839913-001	5.5	 	
E2/R1/ S Duplicate	21-Jul-2018	HK1839913-002	5.4	 	
E2/R1/ M	21-Jul-2018	HK1839913-003	7.9	 	
E2/R1/ M Duplicate	21-Jul-2018	HK1839913-004	8.1	 	
E2/R1/ B	21-Jul-2018	HK1839913-005	8.2	 	
E2/R1/ B Duplicate	21-Jul-2018	HK1839913-006	8.5	 	
F2/R1/ S	21-Jul-2018	HK1839913-007	5.1	 	
F2/R1/ S Duplicate	21-Jul-2018	HK1839913-008	4.5	 	
F2/R1/ M	21-Jul-2018	HK1839913-009	6.0	 	
F2/R1/ M Duplicate	21-Jul-2018	HK1839913-010	6.5	 	
F2/R1/ B	21-Jul-2018	HK1839913-011	5.7	 	
F2/R1/ B Duplicate	21-Jul-2018	HK1839913-012	5.6	 	
C6/R1/ S	21-Jul-2018	HK1839913-013	6.7	 	
C6/R1/ S Duplicate	21-Jul-2018	HK1839913-014	7.0	 	
C6/R1/ M	21-Jul-2018	HK1839913-015	6.8	 	
C6/R1/ M Duplicate	21-Jul-2018	HK1839913-016	6.4	 	
C6/R1/ B	21-Jul-2018	HK1839913-017	6.1	 	
C6/R1/ B Duplicate	21-Jul-2018	HK1839913-018	6.1	 	
C7/R1/ S	21-Jul-2018	HK1839913-019	6.1	 	
C7/R1/ S Duplicate	21-Jul-2018	HK1839913-020	6.5	 	
C7/R1/ M	21-Jul-2018	HK1839913-021	6.8	 	
C7/R1/ M Duplicate	21-Jul-2018	HK1839913-022	7.2	 	
C7/R1/ B	21-Jul-2018	HK1839913-023	6.7	 	
C7/R1/ B Duplicate	21-Jul-2018	HK1839913-024	7.7	 	
C8/R1/ S	21-Jul-2018	HK1839913-025	6.3	 	
C8/R1/ S Duplicate	21-Jul-2018	HK1839913-026	6.7	 	
C8/R1/ M	21-Jul-2018	HK1839913-027	7.1	 	
C8/R1/ M Duplicate	21-Jul-2018	HK1839913-028	7.7	 	
C8/R1/ B	21-Jul-2018	HK1839913-029	7.5	 	
C8/R1/ B Duplicate	21-Jul-2018	HK1839913-030	8.3	 	
C9/R1/ S	21-Jul-2018	HK1839913-031	7.2	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
C9/R1/ S Duplicate	21-Jul-2018	HK1839913-032	6.8	 	
C9/R1/ M	21-Jul-2018	HK1839913-033	7.0	 	
C9/R1/ M Duplicate	21-Jul-2018	HK1839913-034	6.1	 	
C9/R1/ B	21-Jul-2018	HK1839913-035	8.4	 	
C9/R1/ B Duplicate	21-Jul-2018	HK1839913-036	8.8	 	
C11/R1/ S	21-Jul-2018	HK1839913-037	9.9	 	
C11/R1/ S Duplicate	21-Jul-2018	HK1839913-038	9.6	 	
C11/R1/ M	21-Jul-2018	HK1839913-039	9.7	 	
C11/R1/ M Duplicate	21-Jul-2018	HK1839913-040	10.2	 	
C11/R1/B	21-Jul-2018	HK1839913-041	9.6	 	
C11/R1/ B Duplicate	21-Jul-2018	HK1839913-042	10.0	 	
C13/R1/ S	21-Jul-2018	HK1839913-043	5.3	 	
C13/R1/ S Duplicate	21-Jul-2018	HK1839913-044	6.0	 	
C13/R1/ M	21-Jul-2018	HK1839913-045	5.5	 	
C13/R1/ M Duplicate	21-Jul-2018	HK1839913-046	5.7	 	
C13/R1/ B	21-Jul-2018	HK1839913-047	5.4	 	
C13/R1/ B Duplicate	21-Jul-2018	HK1839913-048	6.2	 	
G2/R1/ S	21-Jul-2018	HK1839913-049	5.9	 	
G2/R1/ S Duplicate	21-Jul-2018	HK1839913-050	5.1	 	
G2/R1/ M	21-Jul-2018	HK1839913-051	5.5	 	
G2/R1/ M Duplicate	21-Jul-2018	HK1839913-052	6.6	 	
G2/R1/ B	21-Jul-2018	HK1839913-053	6.3	 	
G2/R1/ B Duplicate	21-Jul-2018	HK1839913-054	7.4	 	
G3/R1/ S	21-Jul-2018	HK1839913-055	4.2	 	
G3/R1/ S Duplicate	21-Jul-2018	HK1839913-056	5.0	 	
G3/R1/ M	21-Jul-2018	HK1839913-057	4.1	 	
G3/R1/ M Duplicate	21-Jul-2018	HK1839913-058	4.4	 	
G3/R1/ B	21-Jul-2018	HK1839913-059	5.2	 	
G3/R1/ B Duplicate	21-Jul-2018	HK1839913-060	6.2	 	
M3/R1/ S	21-Jul-2018	HK1839913-061	6.2	 	
M3/R1/ S Duplicate	21-Jul-2018	HK1839913-062	6.4	 	
M3/R1/ M	21-Jul-2018	HK1839913-063	6.7	 	
M3/R1/ M Duplicate	21-Jul-2018	HK1839913-064	6.0	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
M3/R1/ B	21-Jul-2018	HK1839913-065	6.7	 	
M3/R1/ B Duplicate	21-Jul-2018	HK1839913-066	7.1	 	
E2/R2/ S	21-Jul-2018	HK1839913-067	4.3	 	
E2/R2/ S Duplicate	21-Jul-2018	HK1839913-068	3.7	 	
E2/R2/ M	21-Jul-2018	HK1839913-069	5.6	 	
E2/R2/ M Duplicate	21-Jul-2018	HK1839913-070	6.2	 	
E2/R2/ B	21-Jul-2018	HK1839913-071	6.7	 	
E2/R2/ B Duplicate	21-Jul-2018	HK1839913-072	7.1	 	
F2/R2/ S	21-Jul-2018	HK1839913-073	5.7	 	
F2/R2/ S Duplicate	21-Jul-2018	HK1839913-074	5.2	 	
F2/R2/ M	21-Jul-2018	HK1839913-075	7.0	 	
F2/R2/ M Duplicate	21-Jul-2018	HK1839913-076	7.3	 	
F2/R2/ B	21-Jul-2018	HK1839913-077	6.2	 	
F2/R2/ B Duplicate	21-Jul-2018	HK1839913-078	7.2	 	
C6/R2/ S	21-Jul-2018	HK1839913-079	3.6	 	
C6/R2/ S Duplicate	21-Jul-2018	HK1839913-080	3.9	 	
C6/R2/ M	21-Jul-2018	HK1839913-081	3.2	 	
C6/R2/ M Duplicate	21-Jul-2018	HK1839913-082	2.9	 	
C6/R2/ B	21-Jul-2018	HK1839913-083	3.5	 	
C6/R2/ B Duplicate	21-Jul-2018	HK1839913-084	3.4	 	
C7/R2/ S	21-Jul-2018	HK1839913-085	3.1	 	
C7/R2/ S Duplicate	21-Jul-2018	HK1839913-086	3.8	 	
C7/R2/ M	21-Jul-2018	HK1839913-087	3.9	 	
C7/R2/ M Duplicate	21-Jul-2018	HK1839913-088	4.3	 	
C7/R2/ B	21-Jul-2018	HK1839913-089	5.3	 	
C7/R2/ B Duplicate	21-Jul-2018	HK1839913-090	6.4	 	
C8/R2/ S	21-Jul-2018	HK1839913-091	3.2	 	
C8/R2/ S Duplicate	21-Jul-2018	HK1839913-092	2.6	 	
C8/R2/ M	21-Jul-2018	HK1839913-093	2.9	 	
C8/R2/ M Duplicate	21-Jul-2018	HK1839913-094	2.2	 	
C8/R2/ B	21-Jul-2018	HK1839913-095	2.4	 	
C8/R2/ B Duplicate	21-Jul-2018	HK1839913-096	3.0	 	
C9/R2/ S	21-Jul-2018	HK1839913-097	3.5	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
C9/R2/ S Duplicate	21-Jul-2018	HK1839913-098	3.9	 	
C9/R2/ M	21-Jul-2018	HK1839913-099	3.5	 	
C9/R2/ M Duplicate	21-Jul-2018	HK1839913-100	2.8	 	
C9/R2/ B	21-Jul-2018	HK1839913-101	4.0	 	
C9/R2/ B Duplicate	21-Jul-2018	HK1839913-102	4.6	 	
C11/R2/ S	21-Jul-2018	HK1839913-103	2.7	 	
C11/R2/ S Duplicate	21-Jul-2018	HK1839913-104	3.2	 	
C11/R2/ M	21-Jul-2018	HK1839913-105	4.4	 	
C11/R2/ M Duplicate	21-Jul-2018	HK1839913-106	3.6	 	
C11/R2/ B	21-Jul-2018	HK1839913-107	5.4	 	
C11/R2/ B Duplicate	21-Jul-2018	HK1839913-108	4.6	 	
C13/R2/ S	21-Jul-2018	HK1839913-109	2.9	 	
C13/R2/ S Duplicate	21-Jul-2018	HK1839913-110	2.2	 	
C13/R2/ M	21-Jul-2018	HK1839913-111	5.2	 	
C13/R2/ M Duplicate	21-Jul-2018	HK1839913-112	5.3	 	
C13/R2/ B	21-Jul-2018	HK1839913-113	6.0	 	
C13/R2/ B Duplicate	21-Jul-2018	HK1839913-114	6.8	 	
G2/R2/ S	21-Jul-2018	HK1839913-115	4.6	 	
G2/R2/ S Duplicate	21-Jul-2018	HK1839913-116	3.8	 	
G2/R2/ M	21-Jul-2018	HK1839913-117	4.3	 	
G2/R2/ M Duplicate	21-Jul-2018	HK1839913-118	4.0	 	
G2/R2/ B	21-Jul-2018	HK1839913-119	4.0	 	
G2/R2/ B Duplicate	21-Jul-2018	HK1839913-120	4.9	 	
G3/R2/ S	21-Jul-2018	HK1839913-121	4.5	 	
G3/R2/ S Duplicate	21-Jul-2018	HK1839913-122	3.9	 	
G3/R2/ M	21-Jul-2018	HK1839913-123	4.5	 	
G3/R2/ M Duplicate	21-Jul-2018	HK1839913-124	4.4	 	
G3/R2/ B	21-Jul-2018	HK1839913-125	4.9	 	
G3/R2/ B Duplicate	21-Jul-2018	HK1839913-126	4.7	 	
M3/R2/ S	21-Jul-2018	HK1839913-127	3.2	 	
M3/R2/ S Duplicate	21-Jul-2018	HK1839913-128	3.8	 	
M3/R2/ M	21-Jul-2018	HK1839913-129	3.1	 	
M3/R2/ M Duplicate	21-Jul-2018	HK1839913-130	3.4	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
M3/R2/ B	21-Jul-2018	HK1839913-131	3.8	 	
M3/R2/ B Duplicate	21-Jul-2018	HK1839913-132	4.6	 	
E2/R3/ S	21-Jul-2018	HK1839913-133	2.4	 	
E2/R3/ S Duplicate	21-Jul-2018	HK1839913-134	2.1	 	
E2/R3/ M	21-Jul-2018	HK1839913-135	2.4	 	
E2/R3/ M Duplicate	21-Jul-2018	HK1839913-136	3.2	 	
E2/R3/ B	21-Jul-2018	HK1839913-137	3.3	 	
E2/R3/ B Duplicate	21-Jul-2018	HK1839913-138	2.8	 	
F2/R3/ S	21-Jul-2018	HK1839913-139	4.3	 	
F2/R3/ S Duplicate	21-Jul-2018	HK1839913-140	3.8	 	
F2/R3/ M	21-Jul-2018	HK1839913-141	4.3	 	
F2/R3/ M Duplicate	21-Jul-2018	HK1839913-142	3.9	 	
F2/R3/ B	21-Jul-2018	HK1839913-143	4.8	 	
F2/R3/ B Duplicate	21-Jul-2018	HK1839913-144	4.1	 	
C6/R3/ S	21-Jul-2018	HK1839913-145	5.7	 	
C6/R3/ S Duplicate	21-Jul-2018	HK1839913-146	5.5	 	
C6/R3/ M	21-Jul-2018	HK1839913-147	5.5	 	
C6/R3/ M Duplicate	21-Jul-2018	HK1839913-148	6.1	 	
C6/R3/ B	21-Jul-2018	HK1839913-149	7.4	 	
C6/R3/ B Duplicate	21-Jul-2018	HK1839913-150	6.9	 	
C7/R3/ S	21-Jul-2018	HK1839913-151	6.9	 	
C7/R3/ S Duplicate	21-Jul-2018	HK1839913-152	7.0	 	
C7/R3/ M	21-Jul-2018	HK1839913-153	7.5	 	
C7/R3/ M Duplicate	21-Jul-2018	HK1839913-154	8.2	 	
C7/R3/ B	21-Jul-2018	HK1839913-155	8.6	 	
C7/R3/ B Duplicate	21-Jul-2018	HK1839913-156	7.9	 	
C8/R3/ S	21-Jul-2018	HK1839913-157	7.4	 	
C8/R3/ S Duplicate	21-Jul-2018	HK1839913-158	6.8	 	
C8/R3/ M	21-Jul-2018	HK1839913-159	8.8	 	
C8/R3/ M Duplicate	21-Jul-2018	HK1839913-160	8.2	 	
C8/R3/ B	21-Jul-2018	HK1839913-161	9.8	 	
C8/R3/ B Duplicate	21-Jul-2018	HK1839913-162	10.5	 	
C9/R3/ S	21-Jul-2018	HK1839913-163	6.3	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended Solids (SS)	 	
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and Aggregate Properties	 	
	/ time	ID			
C9/R3/ S Duplicate	21-Jul-2018	HK1839913-164	5.8	 	
C9/R3/ M	21-Jul-2018	HK1839913-165	6.6	 	
C9/R3/ M Duplicate	21-Jul-2018	HK1839913-166	6.2	 	
C9/R3/ B	21-Jul-2018	HK1839913-167	6.1	 	
C9/R3/ B Duplicate	21-Jul-2018	HK1839913-168	5.9	 	
C11/R3/ S	21-Jul-2018	HK1839913-169	5.2	 	
C11/R3/ S Duplicate	21-Jul-2018	HK1839913-170	9.0	 	
C11/R3/ M	21-Jul-2018	HK1839913-171	8.8	 	
C11/R3/ M Duplicate	21-Jul-2018	HK1839913-172	9.0	 	
C11/R3/ B	21-Jul-2018	HK1839913-173	10.0	 	
C11/R3/ B Duplicate	21-Jul-2018	HK1839913-174	10.8	 	
C13/R3/ S	21-Jul-2018	HK1839913-175	8.3	 	
C13/R3/ S Duplicate	21-Jul-2018	HK1839913-176	9.3	 	
C13/R3/ M	21-Jul-2018	HK1839913-177	9.1	 	
C13/R3/ M Duplicate	21-Jul-2018	HK1839913-178	10.0	 	
C13/R3/ B	21-Jul-2018	HK1839913-179	9.9	 	
C13/R3/ B Duplicate	21-Jul-2018	HK1839913-180	10.4	 	
G2/R3/ S	21-Jul-2018	HK1839913-181	7.6	 	
G2/R3/ S Duplicate	21-Jul-2018	HK1839913-182	8.5	 	
G2/R3/ M	21-Jul-2018	HK1839913-183	9.4	 	
G2/R3/ M Duplicate	21-Jul-2018	HK1839913-184	9.8	 	
G2/R3/ B	21-Jul-2018	HK1839913-185	10.1	 	
G2/R3/ B Duplicate	21-Jul-2018	HK1839913-186	9.3	 	
G3/R3/ S	21-Jul-2018	HK1839913-187	10.6	 	
G3/R3/ S Duplicate	21-Jul-2018	HK1839913-188	9.9	 	
G3/R3/ M	21-Jul-2018	HK1839913-189	10.8	 	
G3/R3/ M Duplicate	21-Jul-2018	HK1839913-190	11.6	 	
G3/R3/ B	21-Jul-2018	HK1839913-191	11.3	 	
G3/R3/ B Duplicate	21-Jul-2018	HK1839913-192	10.4	 	
M3/R3/ S	21-Jul-2018	HK1839913-193	6.8	 	
M3/R3/ S Duplicate	21-Jul-2018	HK1839913-194	7.9	 	
M3/R3/ M	21-Jul-2018	HK1839913-195	8.4	 	
M3/R3/ M Duplicate	21-Jul-2018	HK1839913-196	8.3	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD



Sub-Matrix: MARINE WATER		Compound	EA025: Suspended	 	
			Solids (SS)		
		LOR Unit	0.5 mg/L	 	
Client sample ID	Client sampling date	Laboratory sample	EA/ED: Physical and	 	
	/ time	ID	Aggregate Properties		
M3/R3/ B	21-Jul-2018	HK1839913-197	12.2	 	
M3/R3/ B Duplicate	21-Jul-2018	HK1839913-198	11.3	 	

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839913



Laboratory Duplicate (DUP) Report

Matrix: WATER					I	aboratory Duplicate (DUP) R	Peport	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
· · · · · · · · · · · · · · · · · · ·	and Aggregate Properties	s (QC Lot: 1821465)						
HK1839913-001	E2/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	5.5	5.9	6.59
HK1839913-011	F2/R1/ B	EA025: Suspended Solids (SS)		0.5	mg/L	5.7	5.5	3.59
EA/ED: Physical a	and Aggregate Properties							
HK1839913-021	C7/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	6.8	6.5	4.49
HK1839913-031	C9/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	7.2	7.5	3.74
EA/ED: Physical a	and Aggregate Properties	. , , ,	,					
HK1839913-041	C11/R1/ B	EA025: Suspended Solids (SS)		0.5	mg/L	9.6	9.1	5.10
HK1839913-051	G2/R1/ M	EA025: Suspended Solids (SS)		0.5	mg/L	5.5	5.2	6.57
EA/ED: Physical a	and Aggregate Properties	(QC Lot: 1821468)						
HK1839913-061	M3/R1/ S	EA025: Suspended Solids (SS)		0.5	mg/L	6.2	6.4	2.39
HK1839913-071	E2/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	6.7	7.0	4.04
EA/ED: Physical a	and Aggregate Properties	(QC Lot: 1821469)						
HK1839913-081	C6/R2/ M	EA025: Suspended Solids (SS)		0.5	mg/L	3.2	3.0	4.80
HK1839913-091	C8/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	3.2	3.5	9.02
EA/ED: Physical a	and Aggregate Properties	(QC Lot: 1821470)	,					
HK1839913-101	C9/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	4.0	3.8	6.41
HK1839913-111	C13/R2/ M	EA025: Suspended Solids (SS)		0.5	mg/L	5.2	4.9	5.97
EA/ED: Physical a	and Aggregate Properties	s (QC Lot: 1821471)	·					
HK1839913-121	G3/R2/ S	EA025: Suspended Solids (SS)		0.5	mg/L	4.5	4.1	8.70
HK1839913-131	M3/R2/ B	EA025: Suspended Solids (SS)		0.5	mg/L	3.8	4.2	7.50
EA/ED: Physical a	and Aggregate Properties	s (QC Lot: 1821472)	·					
HK1839913-141	F2/R3/ M	EA025: Suspended Solids (SS)		0.5	mg/L	4.3	4.0	6.57
HK1839913-151	C7/R3/ S	EA025: Suspended Solids (SS)		0.5	mg/L	6.9	6.6	4.05
EA/ED: Physical a	and Aggregate Properties							
HK1839913-161	C8/R3/ B	EA025: Suspended Solids (SS)		0.5	mg/L	9.8	9.4	4.18
HK1839913-171	C11/R3/ M	EA025: Suspended Solids (SS)		0.5	mg/L	8.8	9.4	6.03
EA/ED: Physical a	and Aggregate Properties	s (QC Lot: 1821474)						
HK1839913-181	G2/R3/ S	EA025: Suspended Solids (SS)		0.5	mg/L	7.6	7.9	3.22
HK1839913-191	G3/R3/ B	EA025: Suspended Solids (SS)		0.5	mg/L	11.3	10.9	3.61

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER			Method Blank (ME	3) Report		Laboratory Control	l Spike (LCS) and Laborate	ory Control Sp	ike Duplicate ((DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPDs	s (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit

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Client : ENOVATIVE ENVIRONMENTAL SERVICE LTD

Work Order HK1839913



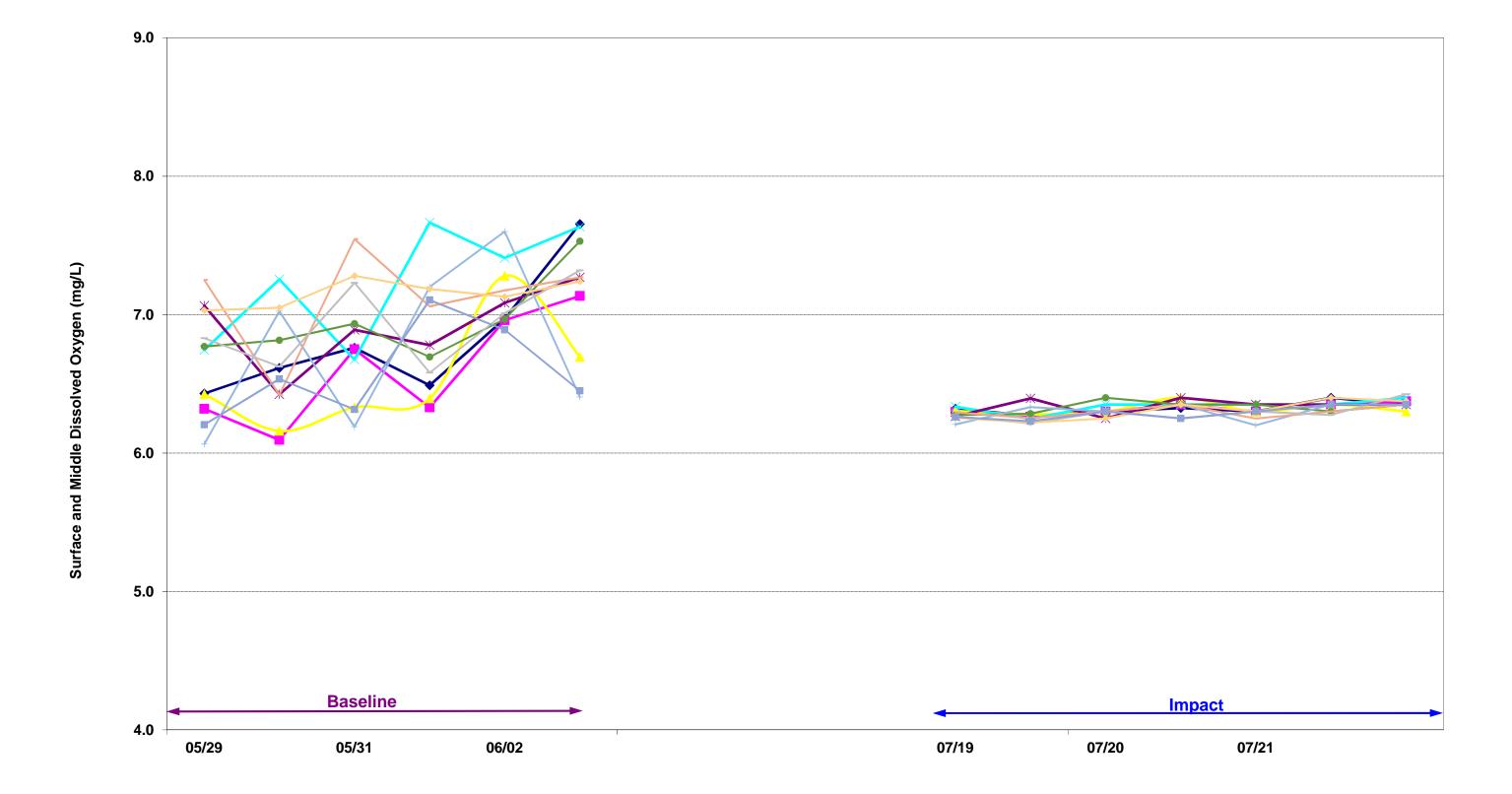
Matrix: WATER		Method Blank (M	B) Report		Laboratory Contro	ol Spike (LCS) and Laborate	ory Control Spi	ike Duplicate (E	OCS) Report	
				Spike	Spike Re	ecovery (%)	Recovery	Limits (%)	RP	Ds (%)
Method: Compound CAS	Number LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 18	321465)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	99.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321466)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321467)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	98.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321468)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321469)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	98.0		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321470)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321471)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	99.0		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321472)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321473)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	98.0		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 18	321474)									
EA025: Suspended Solids (SS)	0.5	mg/L	<0.5	20 mg/L	102		85	115		

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

• No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.

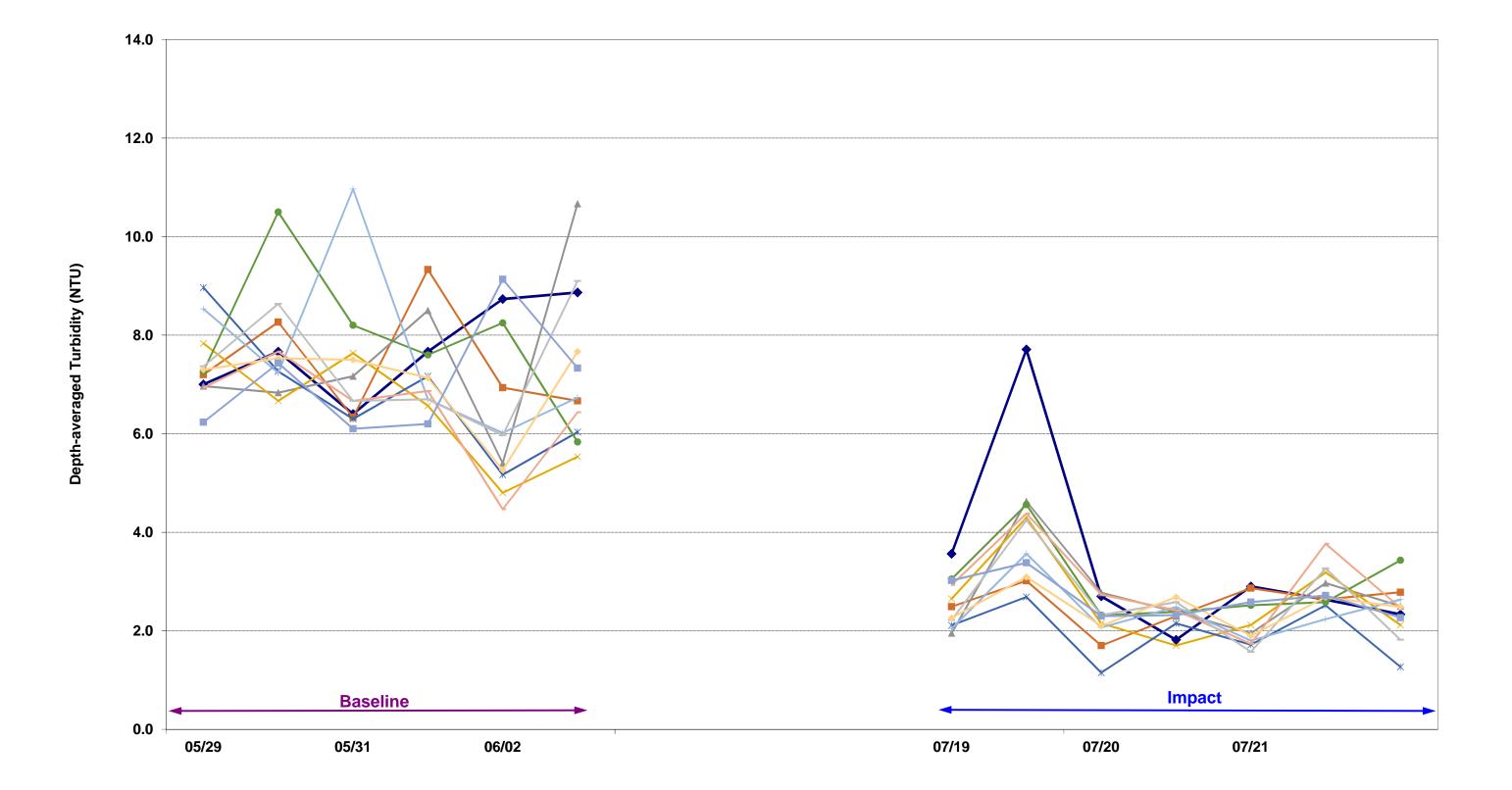
Annex C

Impact Water Quality Monitoring Results

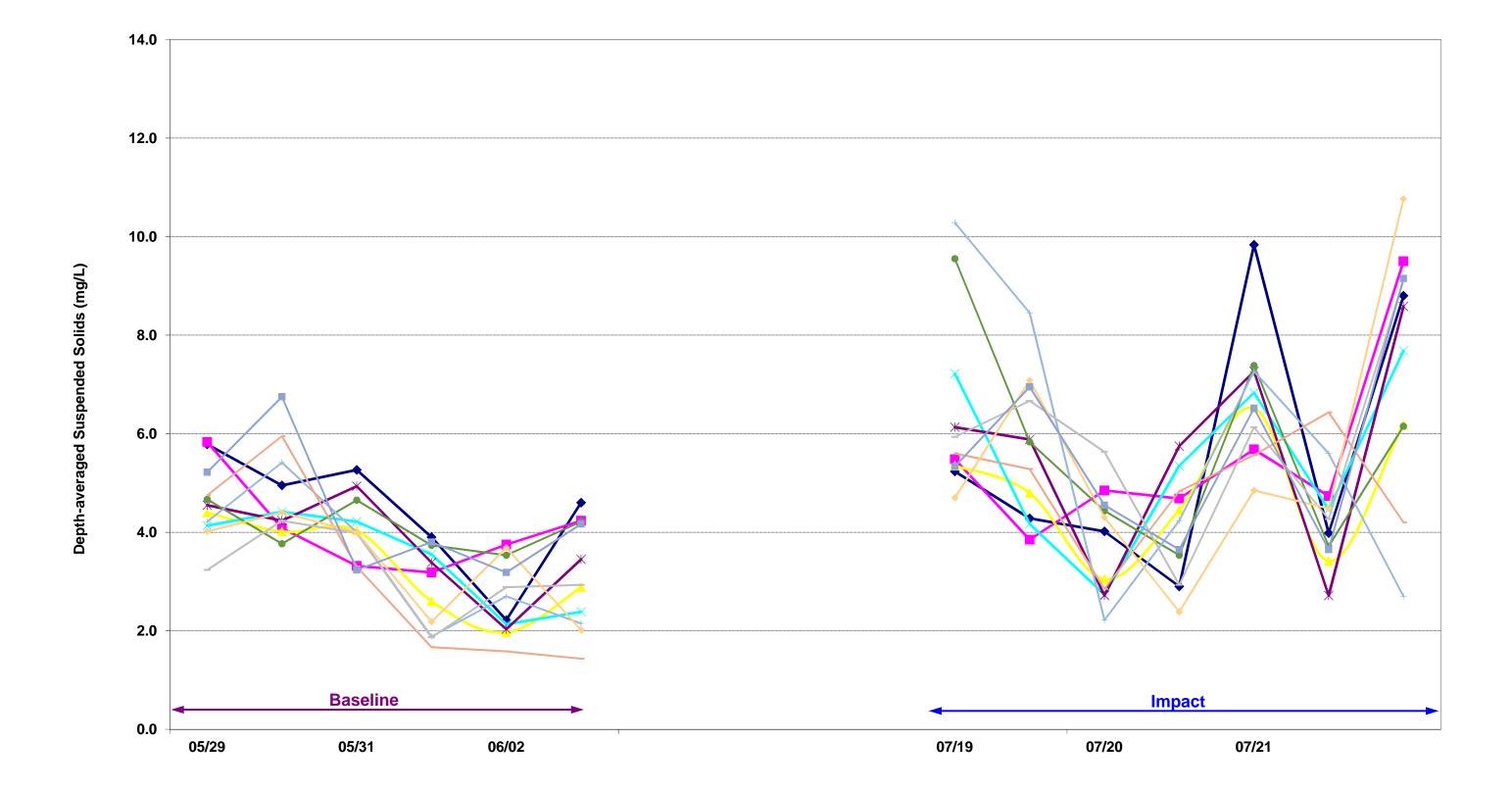














					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L)	Bottom Dissolved Oxygen (mg/L)	Depth-Averaged Turbidity (NTU)	Depth- Averaged SS (mg/L)
Action Level									<u><5.76</u>	<u><5.84</u>	<u>>9.28</u>	<u>>5.69</u>
Limit Level									<5.56	<5.64	>10.77	>6.23
Yellow dot	to the left c	f data poin	ndicates trigg It indicates tri It indicates no	gger of Act	ion Level. V							
Date	Round	Station	Time	Level	50.							
2018-Jul-19	Round 1	E2	09:01	Surface	8.5	95.3	6.22	1.7	6.21	6.14	2.0	10.28
2018-Jul-19	Round 1	E2	09:01	Surface	9.4					3.11		5120
2018-Jul-19	Round 1	E2	09:00	Middle	10.9							
2018-Jul-19	Round 1	E2	09:00	Middle	10.0							
2018-Jul-19	Round 1	E2	08:59	Bottom	10.9							
2018-Jul-19	Round 1	E2	08:59	Bottom	12.0							
2018-Jul-19	Round 1	F2	10:33	Surface	4.7				6.30	6.24	2.9	5.60
2018-Jul-19	Round 1	F2	10:33	Surface	5.4							
2018-Jul-19	Round 1	F2	10:32	Middle	5.1							
2018-Jul-19	Round 1	F2	10:32	Middle	5.7		6.34					
2018-Jul-19	Round 1	F2	10:31	Bottom	6.3							
2018-Jul-19	Round 1	F2	10:31	Bottom	6.4							
2018-Jul-19	Round 1	C6	09:48	Surface	3.9				6.31	6.24	2.0	5.35
2018-Jul-19	Round 1	C6	09:48	Surface	4.8							
2018-Jul-19	Round 1	C6	09:47	Middle	5.1							
2018-Jul-19	Round 1	C6	09:47	Middle	6.2							
2018-Jul-19	Round 1	C6	09:46	Bottom	5.6							
2018-Jul-19	Round 1	C6	09:46	Bottom	6.5							
2018-Jul-19	Round 1	C7	10:02	Surface	6.4				6.34	6.28	2.7	7.22
2018-Jul-19	Round 1	C7	10:02	Surface	6.9	97.4	6.35					
2018-Jul-19	Round 1	C7	10:01	Middle	6.9							
2018-Jul-19	Round 1	C7	10:01	Middle	7.0		6.32					
2018-Jul-19	Round 1	C7	10:00	Bottom	8.3							
2018-Jul-19	Round 1	C7	10:00	Bottom	7.8							
2018-Jul-19	Round 1	C8	11:44	Surface	3.7				6.27	6.29	2.1	<u>6.13</u>
2018-Jul-19	Round 1	C8	11:44	Surface	4.1	96.4	6.26				_	_
2018-Jul-19	Round 1	C8	11:43	Middle	6.5							
2018-Jul-19	Round 1	C8	11:43	Middle	6.5							
2018-Jul-19	Round 1	C8	11:42	Bottom	8.4							
2018-Jul-19	Round 1	C8	11:42	Bottom	7.6							
2018-Jul-19	Round 1	C9	11:28	Surface	9.4				6.28	6.36	3.0	9.55
2018-Jul-19	Round 1	C9	11:28	Surface	9.2					_	_	-
2018-Jul-19	Round 1	C9	11:27	Middle	9.7							
2018-Jul-19	Round 1	C9	11:27	Middle	8.9							
2018-Jul-19	Round 1	C9	11:26	Bottom	10.6							
2018-Jul-19	Round 1	C9	11:26	Bottom	9.5							

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L)	Bottom Dissolved Oxygen (mg/L)	Depth-Averaged Turbidity (NTU)	Depth- Averaged SS (mg/L) >5.69
Limit Level									<5.76 < 5.56	<5.84 < 5.64	>9.28 >10.77	>5.69 > 6.23
Red dot to t	ha laft of d	ata noint in	dicates trigg	er of Limit I	ovol Valu	es also show	n in hold		<5.50	< 5.04	>10.77	>0.23
		•	t indicates tri									
			indicates no			raidos aiso t	indominod.					
Date	Round	Station	Time	Level	, , , , , , , , , , , , , , , , , , , 							
2018-Jul-19	Round 1	C11	11:02	Surface	4.0	98.3	6.37	3.0	0 6.32	6.30	3.6	5.23
2018-Jul-19	Round 1	C11	11:02	Surface	4.0				_	0.00		0.20
2018-Jul-19	Round 1	C11	11:01	Middle	4.9							
2018-Jul-19	Round 1	C11	11:01	Middle	5.7							
2018-Jul-19	Round 1	C11	11:00	Bottom	5.9							
2018-Jul-19	Round 1	C11	11:00	Bottom	6.9							
2018-Jul-19	Round 1	C13	09:32	Surface	4.0					6.33	2.5	5.48
2018-Jul-19	Round 1	C13	09:32	Surface	5.2							
2018-Jul-19	Round 1	C13	09:31	Middle	5.0							
2018-Jul-19	Round 1	C13	09:31	Middle	6.0	96.8	6.29	2.8	3			
2018-Jul-19	Round 1	C13	09:30	Bottom	6.9	97.3	6.32	2.4	1			
2018-Jul-19	Round 1	C13	09:30	Bottom	5.8	97.5	6.34	2.4	1			
2018-Jul-19	Round 1	G2	12:10	Surface	4.8	3 95.7	6.24	1.8	3 6.27	6.36	2.2	<u>5.93</u>
2018-Jul-19	Round 1	G2	12:10	Surface	3.7	7 95.7	6.24	1.8	3			
2018-Jul-19	Round 1	G2	12:08	Middle	6.2	96.4	6.29	2.5	5			
2018-Jul-19	Round 1	G2	12:08	Middle	5.8	96.5	6.29	2.5	5			
2018-Jul-19	Round 1	G2	12:06	Bottom	7.1	l 97.4	6.35	2.3	3			
2018-Jul-19	Round 1	G2	12:06	Bottom	8.0	97.5	6.36	2.3	3			
2018-Jul-19	Round 1	G3	11:54	Surface	4.1	l 95.9	6.26	2.1	6.26	6.28	2.3	4.70
2018-Jul-19	Round 1	G3	11:54	Surface	4.0							
2018-Jul-19	Round 1	G3	11:53	Middle	4.7	7 95.7	6.25					
2018-Jul-19	Round 1	G3	11:53	Middle	4.6							
2018-Jul-19	Round 1	G3	11:52	Bottom	5.2							
2018-Jul-19	Round 1	G3	11:52	Bottom	5.6							
2018-Jul-19	Round 1	M3	12:31	Surface	4.9					6.31	3.0	5.33
2018-Jul-19	Round 1	M3	12:31	Surface	4.4							
2018-Jul-19	Round 1	M3	12:30	Middle	5.2							
2018-Jul-19	Round 1	M3	12:30	Middle	5.5							
2018-Jul-19	Round 1	M3	12:29	Bottom	6.2							
2018-Jul-19	Round 1	M3	12:29	Bottom	5.8	97.6	6.31	3.4	<u> </u>			

					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L)	Bottom Dissolved Oxygen (mg/L)	Depth-Averaged Turbidity (NTU)	Depth- Averaged SS (mg/L)
Action Level									<u><5.76</u>	<u><5.84</u>	<u>>9.28</u>	<u>>5.69</u>
Limit Level									<5.56	<5.64	>10.77	>6.23
Yellow dot t	to the left o	f data poin	ndicates trigg It indicates tri t indicates no	gger of Act	ion Level. V							
Date	Round	Station	Time	Level								
2018-Jul-19	Round 2	E2	12:58	Surface	7.0				6.33	6.24	3.6	8.45
2018-Jul-19	Round 2	E2	12:58	Surface	8.2							
2018-Jul-19	Round 2	E2	12:57	Middle	8.2							
2018-Jul-19	Round 2	E2	12:57	Middle	8.8							
2018-Jul-19	Round 2	E2	12:56	Bottom	8.9							
	Round 2	E2	12:56	Bottom	9.6					0.07	A 4	E 00
2018-Jul-19 2018-Jul-19	Round 2 Round 2	F2 F2	16:01 16:01	Surface Surface	3.4 4.5				_	6.27	4.4	5.28
2018-Jul-19 2018-Jul-19	Round 2	F2	16:00	Middle	4.5							
2018-Jul-19	Round 2	F2	16:00	Middle	5.9							
2018-Jul-19	Round 2	F2	15:59	Bottom	6.0							
	Round 2	F2	15:59	Bottom	7.0							
	Round 2	C6	13:44	Surface	3.5				6.28	6.30	4.6	4.80
2018-Jul-19	Round 2	C6	13:44	Surface	4.2				_			
2018-Jul-19	Round 2	C6	13:43	Middle	4.8	96.0	6.28	4.4	1			
2018-Jul-19	Round 2	C6	13:43	Middle	4.6	95.9	6.28	4.3	3			
2018-Jul-19	Round 2	C6	13:42	Bottom	5.6							
	Round 2	C6	13:42	Bottom	6.1							
	Round 2	C7	13:52	Surface	4.0				0 6.25	6.35	4.3	4.17
2018-Jul-19	Round 2	C7	13:52	Surface	3.0							
2018-Jul-19	Round 2	C7	13:51	Middle	3.6							
2018-Jul-19	Round 2	C7	13:51	Middle	4.7							
2018-Jul-19 2018-Jul-19	Round 2 Round 2	C7 C7	13:50 13:50	Bottom Bottom	4.9 4.8							
	Round 2	C8	17:15	Surface	4.7				6.40	6.35	2.7	5.88
2018-Jul-19		C8	17:15	Surface	5.3					0.55	<u></u>	<u>J.00</u>
	Round 2	C8	17:13	Middle	5.6							
	Round 2	C8	17:14	Middle	6.6							
	Round 2	C8	17:13	Bottom	6.2							
	Round 2	C8	17:13	Bottom	6.9							
	Round 2	C9	17:05	Surface	4.1				1 6.29	6.44	4.6	<u>5.83</u>
	Round 2	C9	17:05	Surface	5.0		6.25	4.5	5			
	Round 2	C9	17:04	Middle	5.2				3			
	Round 2	C9	17:04	Middle	6.2							
	Round 2	C9	17:03	Bottom	7.0							
2018-Jul-19	Round 2	C9	17:03	Bottom	7.5	98.2	6.44	5.4	1			

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76	Bottom Dissolved Oxygen (mg/L) <5.84	Depth-Averaged Turbidity (NTU) >9.28	Depth- Averaged SS (mg/L) >5.69
Limit Level									<5.56	<5.64	>10.77	>6.23
	the left of d	ata point in	ndicates trigg	er of Limit	evel Valu	es also shov	n in hold		νοίου	νοιο ι	710111	>0. <u>L</u> 0
			t indicates tri									
		•	t indicates no									
Date	Round	Station	Time	Level	.							
2018-Jul-19	Round 2	C11	16:33	Surface	3.0	96.0	6.26	5.1	6.27	6.41	7.7	4.28
2018-Jul-19	Round 2	C11	16:33	Surface	4.				_			
2018-Jul-19	Round 2	C11	16:32	Middle	3.7							
2018-Jul-19	Round 2	C11	16:32	Middle	4.4							
2018-Jul-19	Round 2	C11	16:31	Bottom	5.							
2018-Jul-19	Round 2	C11	16:31	Bottom	5.4							
2018-Jul-19	Round 2	C13	18:42	Surface	3.8					6.35	3.0	3.85
2018-Jul-19	Round 2	C13	18:42	Surface	2.0							
2018-Jul-19	Round 2	C13	18:41	Middle	3.4							
2018-Jul-19	Round 2	C13	18:41	Middle	4.3							
2018-Jul-19	Round 2	C13	18:40	Bottom	4.5							
2018-Jul-19	Round 2	C13	18:40	Bottom	5.							
2018-Jul-19	Round 2	G2	18:01	Surface	5.2	2 95.6				6.25	4.2	6.67
2018-Jul-19	Round 2	G2	18:01	Surface	6.2	2 95.6	6.21	4.4				
2018-Jul-19	Round 2	G2	17:59	Middle	6.7				;			
2018-Jul-19	Round 2	G2	17:59	Middle	7.4	4 95.7	6.22	4.5	;			
2018-Jul-19	Round 2	G2	17:57	Bottom	7.7	7 96.1	6.25	3.9)			
2018-Jul-19	Round 2	G2	17:57	Bottom	6.8	96.3	6.25	3.9)			
2018-Jul-19	Round 2	G3	17:26	Surface	6.5	5 95.8	6.22	2.9	6.22	6.20	3.1	7.08
2018-Jul-19	Round 2	G3	17:26	Surface	6.1	1 95.8	6.22	2.8	}			
2018-Jul-19	Round 2	G3	17:25	Middle	7.	1 95.7	6.22	3.4				
2018-Jul-19	Round 2	G3	17:25	Middle	6.8	95.7	6.22	3.4				
2018-Jul-19	Round 2	G3	17:24	Bottom	7.9	96.7	6.20	3.0)			
2018-Jul-19	Round 2	G3	17:24	Bottom	8.							
2018-Jul-19	Round 2	M3	18:13	Surface	6.4				6.23	6.36	3.4	6.95
2018-Jul-19	Round 2	M3	18:13	Surface	5.3							
2018-Jul-19	Round 2	M3	18:12	Middle	7.4							
2018-Jul-19	Round 2	M3	18:12	Middle	6.3							
2018-Jul-19	Round 2	M3	18:11	Bottom	8.4							
2018-Jul-19	Round 2	M3	18:11	Bottom	7.9	97.5	6.36	3.7	•			

Action Level Limit Level					TSS (mg/L)	DO Saturation (%)	(mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76 <5.56	Bottom Dissolved Oxygen (mg/L) <5.84 <5.64	Depth-Averaged Turbidity (NTU) >9.28 >10.77	Depth- Averaged SS (mg/L) >5.69 >6.23
			ndicates trigg t indicates tri									
Green dot t	to the left of	f data poin	t indicates no									
Date	Round	Station	Time	Level								
2018-Jul-20	Round 1	E2	10:00	Surface	1.4					6.20	2.1	2.22
2018-Jul-20	Round 1	E2	10:00	Surface	2.1							
2018-Jul-20	Round 1	E2	09:59	Middle	1.7							
2018-Jul-20 2018-Jul-20	Round 1 Round 1	E2 E2	09:59 09:58	Middle Bottom	2.2 3.2							
2018-Jul-20 2018-Jul-20	Round 1	E2	09.58	Bottom	2.7							
2018-Jul-20	Round 1	F2	11:34	Surface	2.2				6.30	6.20	2.7	2.85
2018-Jul-20	Round 1	F2	11:34	Surface	2.1					0.20		2.00
2018-Jul-20	Round 1	F2	11:33	Middle	3.4							
2018-Jul-20	Round 1	F2	11:33	Middle	2.7							
2018-Jul-20	Round 1	F2	11:32	Bottom	3.1							
2018-Jul-20	Round 1	F2	11:32	Bottom	3.6	95.4	6.20	2.4	ļ			
2018-Jul-20	Round 1	C6	10:48	Surface	2.1					6.25	2.8	3.05
2018-Jul-20	Round 1	C6	10:48	Surface	2.1							
2018-Jul-20	Round 1	C6	10:47	Middle	3.8							
2018-Jul-20	Round 1	C6	10:47	Middle	2.6							
2018-Jul-20	Round 1	C6	10:46	Bottom	3.4							
2018-Jul-20	Round 1	<u>C6</u>	10:46	Bottom	4.3					0.00		0.70
2018-Jul-20	Round 1	C7	11:02	Surface	1.5				6.35	6.30	2.2	2.73
2018-Jul-20	Round 1	C7	11:02	Surface	1.9							
2018-Jul-20	Round 1	C7 C7	11:01	Middle	3.2 2.3							
2018-Jul-20 2018-Jul-20	Round 1 Round 1	C7	11:01 11:00	Middle Bottom	3.4							
2018-Jul-20	Round 1	C7	11:00	Bottom	4.1							
2018-Jul-20	Round 1	C8	12:26	Surface	2.0					6.20	1.2	2.72
2018-Jul-20	Round 1	C8	12:26	Surface	1.7					- 0.20		
2018-Jul-20	Round 1	C8	12:25	Middle	2.8							
2018-Jul-20	Round 1	C8	12:25	Middle	2.2							
2018-Jul-20	Round 1	C8	12:24	Bottom	3.6							
2018-Jul-20	Round 1	C8	12:24	Bottom	4.0	96.0			<u> </u>			
2018-Jul-20	Round 1	C9	12:11	Surface	3.4				6.40	6.30	2.3	4.43
2018-Jul-20	Round 1	C9	12:11	Surface	4.2							
2018-Jul-20	Round 1	C9	12:10	Middle	4.6							
2018-Jul-20	Round 1	C9	12:10	Middle	4.1							
2018-Jul-20	Round 1	C9	12:09	Bottom	5.2							
2018-Jul-20	Round 1	C9	12:09	Bottom	5.1	97.5	6.30	2.5)			

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76	Bottom Dissolved Oxygen (mg/L) <5.84	Depth-Averaged Turbidity (NTU) >9.28	Depth- Averaged SS (mg/L) >5.69
Limit Level									<5.56	<5.64	>10.77	>6.23
Yellow dot to Green dot to	o the left of the left of	data point data point	dicates trigg t indicates tri indicates no	gger of Acti exceedanc	on Level. V							
	Round 1	Station	Time	Level	0.7	, 00.6	6.40	2.0	0.00	00.00	0.7	4.00
2018-Jul-20	Round 1	C11	11:51	Surface	3.7				6.30	6.20	2.7	4.02
2018-Jul-20 2018-Jul-20	Round 1 Round 1	C11 C11	11:51 11:50	Surface Middle	3.8							
	Round 1	C11	11:50	Middle	3.9 4.1							
2018-Jul-20 2018-Jul-20	Round 1	C11	11:50	Bottom	4.1 4.0			2.9				
2018-Jul-20 2018-Jul-20	Round 1	C11		Bottom	4.6			2.8 3.0				
	Round 1	C13	11:49 10:35	Surface	3.5					6.25	1.7	4.85
2018-Jul-20 2018-Jul-20	Round 1	C13	10.35	Surface	4.5					0.23	1.7	4.00
2018-Jul-20 2018-Jul-20	Round 1	C13	10.35	Middle	5.1							
2018-Jul-20 2018-Jul-20	Round 1	C13	10:34	Middle	5.3							
2018-Jul-20 2018-Jul-20	Round 1	C13	10:34	Bottom	5.7							
2018-Jul-20 2018-Jul-20	Round 1	C13	10.33	Bottom	5.7		6.20					
2018-Jul-20	Round 1	G2	12:51	Surface	5.6					6.30	2.3	5.63
2018-Jul-20	Round 1	G2 G2	12:51	Surface	5.2					0.50		 5.05
2018-Jul-20	Round 1	G2	12:49	Middle	5.4							
2018-Jul-20	Round 1	G2	12:49	Middle	5.9							
	Round 1	G2	12:47	Bottom	5.7							
	Round 1	G2	12:47	Bottom	6.0			2.4				
2018-Jul-20	Round 1	G3	12:32	Surface	3.2					6.20	2.1	4.30
2018-Jul-20	Round 1	G3	12:32	Surface	3.6					0.20	<u></u>	1.00
2018-Jul-20	Round 1	G3	12:31	Middle	4.6							
	Round 1	G3	12:31	Middle	4.7							
2018-Jul-20	Round 1	G3	12:30	Bottom	5.1							
2018-Jul-20	Round 1	G3	12:30	Bottom	4.6			2.1				
2018-Jul-20	Round 1	M3	13:08	Surface	3.2					6.30	2.3	4.55
2018-Jul-20	Round 1	M3	13:08	Surface	4.1							
2018-Jul-20	Round 1	M3	13:07	Middle	4.3		6.30	2.2				
2018-Jul-20	Round 1	M3	13:07	Middle	5.4		6.30					
2018-Jul-20	Round 1	M3	13:06	Bottom	5.6							
	Round 1	M3	13:06	Bottom	4.7							

Action Level Limit Level	the left of c	lata point ir	ndicates trigg	er of Limit I	TSS (mg/L)	DO Saturation (%)	(mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76 <5.56	Bottom Dissolved Oxygen (mg/L) <5.84 <5.64	Depth-Averaged Turbidity (NTU) >9.28 >10.77	Depth- Averaged SS (mg/L) >5.69 >6.23
Yellow dot	to the left o	f data poin	t indicates tri t indicates tri	gger of Acti	on Level. V							
Date	Round	Station	Time	Level								
2018-Jul-20	Round 2	E2	14:33	Surface	3.8	97.9	6.40	2.6	6.35	6.30	2.5	4.23
2018-Jul-20	Round 2	E2	14:33	Surface	3.5							
2018-Jul-20	Round 2	E2	14:32	Middle	4.3	96.9	6.30	2.5	;			
2018-Jul-20	Round 2	E2	14:32	Middle	4.3	96.7	6.30	2.4	ļ			
2018-Jul-20	Round 2	E2	14:31	Bottom	4.6							
2018-Jul-20	Round 2	E2	14:31	Bottom	4.9							
2018-Jul-20	Round 2	F2	16:29	Surface	4.6				6.35	6.30	2.4	4.83
2018-Jul-20	Round 2	F2	16:29	Surface	4.0							
2018-Jul-20	Round 2	F2	16:28	Middle	4.2							
2018-Jul-20	Round 2	F2	16:28	Middle	4.9							
2018-Jul-20	Round 2	F2	16:27	Bottom	6.2							
2018-Jul-20 2018-Jul-20	Round 2	F2	16:27	Bottom	5.1					0.00	0.4	4.45
2018-Jul-20 2018-Jul-20	Round 2 Round 2	C6 C6	15:23 15:23	Surface Surface	4.5 3.7					6.30	2.4	4.45
2018-Jul-20 2018-Jul-20	Round 2	C6	15:23	Middle	3.7 4.7							
2018-Jul-20	Round 2	C6	15:22	Middle	4.2							
2018-Jul-20	Round 2	C6	15:21	Bottom	5.2							
2018-Jul-20	Round 2	C6	15:21	Bottom	4.4							
2018-Jul-20	Round 2	C7	15:48	Surface	4.7				6.35	6.30	1 .7	5.35
2018-Jul-20	Round 2	C7	15:48	Surface	4.8							
2018-Jul-20	Round 2	C7	15:47	Middle	5.7							
2018-Jul-20	Round 2	C7	15:47	Middle	4.7							
2018-Jul-20	Round 2	C7	15:46	Bottom	5.9	96.5			j			
2018-Jul-20	Round 2	C7	15:46	Bottom	6.3		6.30					
2018-Jul-20	Round 2	C8	17:32	Surface	4.4	99.2	6.50	2.2	2 6.40	6.30	2.2	<u>5.75</u>
2018-Jul-20	Round 2	C8	17:32	Surface	4.7							
2018-Jul-20	Round 2	C8	17:31	Middle	5.3							
2018-Jul-20	Round 2	C8	17:31	Middle	6.2							
2018-Jul-20	Round 2	C8	17:30	Bottom	6.6							
2018-Jul-20	Round 2	C8	17:30	Bottom	7.3							
2018-Jul-20	Round 2	C9	17:16	Surface	3.1				6.35	6.30	2.4	3.53
2018-Jul-20	Round 2	C9	17:16	Surface	3.3							
2018-Jul-20	Round 2	C9	17:15	Middle	3.7							
2018-Jul-20	Round 2	C9	17:15	Middle	3.3							
2018-Jul-20	Round 2	C9	17:14	Bottom	3.8							
2018-Jul-20	Round 2	C9	17:14	Bottom	4.0	97.2	6.30	2.4	+			

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76	Bottom Dissolved Oxygen (mg/L) <5.84	Depth-Averaged Turbidity (NTU) >9.28	Depth- Averaged SS (mg/L) >5.69
Limit Level									<5.56	<5.64	>10.77	>6.23
	he left of d	ata point in	dicates trigg	er of Limit L	evel Value	s also show	n in bold		10.00	10.0.	7 1 4 11 1	7 0.20
			t indicates tri									
			indicates no									
	Round	Station	Time	Level								
	Round 2	C11	16:53	Surface	2.8	97.3	6.30	2.	1 6.33	6.30	1.8	2.90
2018-Jul-20	Round 2	C11	16:53	Surface	1.9							
2018-Jul-20	Round 2	C11	16:52	Middle	3.4							
	Round 2	C11	16:52	Middle	2.5							
	Round 2	C11	16:51	Bottom	3.2							
2018-Jul-20	Round 2	C11	16:51	Bottom	3.6	97.2	6.30	2.3	3			
	Round 2	C13	15:06	Surface	4.5	97.3	6.40	2.3	3 6.35	6.30	2.3	4.68
2018-Jul-20	Round 2	C13	15:06	Surface	4.0	97.3	6.40					
2018-Jul-20	Round 2	C13	15:05	Middle	4.4	96.8	6.30	2.5	5			
2018-Jul-20	Round 2	C13	15:05	Middle	4.9	96.8	6.30	2.6	6			
2018-Jul-20	Round 2	C13	15:04	Bottom	5.0	96.8	6.30	2.0	0			
2018-Jul-20	Round 2	C13	15:04	Bottom	5.3	96.2	6.30	2.2	2			
2018-Jul-20	Round 2	G2	18:03	Surface	2.7	97.1	6.30	2.4	4 6.25	6.20	2.6	2.93
2018-Jul-20	Round 2	G2	18:03	Surface	2.2	97.3	6.30	2.4	4			
2018-Jul-20	Round 2	G2	18:01	Middle	3.1	96.0	6.20	2.	5			
2018-Jul-20	Round 2	G2	18:01	Middle	2.4	96.2	6.20	2.	5			
2018-Jul-20	Round 2	G2	17:59	Bottom	3.2	96.1	6.20	2.9	9			
2018-Jul-20	Round 2	G2	17:59	Bottom	4.0	96.0	6.20	2.8	8			
2018-Jul-20	Round 2	G3	17:42	Surface	2.1	98.8	6.40	2.0	3 6.35	6.25	2.7	2.38
2018-Jul-20	Round 2	G3	17:42	Surface	1.4	98.8	6.40	2.6	6			
2018-Jul-20	Round 2	G3	17:41	Middle	1.8	97.2	6.30	2.4	4			
2018-Jul-20	Round 2	G3	17:41	Middle	2.3	97.2	6.30	2.	5			
2018-Jul-20	Round 2	G3	17:41	Bottom	2.7	95.6	6.20					
2018-Jul-20	Round 2	G3	17:40	Bottom	4.0		6.30	3.2	2			
	Round 2	M3	18:38	Surface	2.7	97.0	6.30	2.5	5 6.25	6.20	2.3	3.65
2018-Jul-20	Round 2	M3	18:38	Surface	1.8	96.8	6.30					
2018-Jul-20	Round 2	M3	18:37	Middle	2.2	95.8	6.20	2.2	2			
2018-Jul-20	Round 2	M3	18:37	Middle	3.4	95.8	6.20	2.8	8			
2018-Jul-20	Round 2	M3	18:36	Bottom	6.0	95.3	6.20					
2018-Jul-20	Round 2	M3	18:36	Bottom	5.8	95.3	6.20	1.9	9			

			ndicates trigg				(mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76 <5.56	Bottom Dissolved Oxygen (mg/L) <5.84 <5.64	Depth-Averaged Turbidity (NTU) >9.28 >10.77	Depth- Averaged SS (mg/L) >5.69 >6.23
			t indicates tri t indicates no			alues also u	nderlined.					
Date	Round	Station	Time	Level								
2018-Jul-21	Round 1	E2	07:02	Surface	5.5					6.20	1.8	7.27
2018-Jul-21	Round 1	E2	07:02	Surface	5.4							
2018-Jul-21	Round 1	E2	07:01	Middle	7.9							
2018-Jul-21	Round 1	E2	07:01	Middle	8.1							
2018-Jul-21	Round 1	E2	07:00	Bottom	8.2							
2018-Jul-21	Round 1	E2	07:00	Bottom	8.5					00.00	1 7	● E E 7
2018-Jul-21	Round 1	F2	08:41	Surface	5.1					6.30	1.7	5.57
2018-Jul-21	Round 1	F2	08:41	Surface	4.5							
2018-Jul-21 2018-Jul-21	Round 1 Round 1	F2 F2	08:40	Middle Middle	6.0 6.5							
2018-Jul-21 2018-Jul-21	Round 1	F2	08:40 08:39	Bottom	5.7							
2018-Jul-21	Round 1	F2	08:39	Bottom	5.6							
2018-Jul-21	Round 1	C6	07:52	Surface	6.7					6.30	2.0	6.52
2018-Jul-21	Round 1	C6	07:52	Surface	7.0		6.30			0.00	2.0	0.52
2018-Jul-21	Round 1	C6	07:51	Middle	6.8							
2018-Jul-21	Round 1	C6	07:51	Middle	6.4							
2018-Jul-21	Round 1	C6	07:50	Bottom	6.1							
2018-Jul-21	Round 1	C6	07:50	Bottom	6.1							
2018-Jul-21	Round 1	C7	08:07	Surface	6.1				6.35	6.30	2.1	6.83
2018-Jul-21	Round 1	C7	08:07	Surface	6.5		6.40					
2018-Jul-21	Round 1	C7	08:06	Middle	6.8							
2018-Jul-21	Round 1	C7	08:06	Middle	7.2	97.3	6.30	2.1				
2018-Jul-21	Round 1	C7	08:05	Bottom	6.7	96.8	6.30	1.8	3			
2018-Jul-21	Round 1	C7	08:05	Bottom	7.7		6.30					
2018-Jul-21	Round 1	C8	09:41	Surface	6.3					6.30	1.7	7.27
2018-Jul-21	Round 1	C8	09:41	Surface	6.7							
2018-Jul-21	Round 1	C8	09:40	Middle	7.1							
2018-Jul-21	Round 1	C8	09:40	Middle	7.7							
2018-Jul-21	Round 1	C8	09:39	Bottom	7.5		6.30					
2018-Jul-21	Round 1	C8	09:39	Bottom	8.3		6.30					
2018-Jul-21	Round 1	C9	09:25	Surface	7.2				6.35	6.30	2.5	7.38
2018-Jul-21	Round 1	C9	09:25	Surface	6.8							
2018-Jul-21	Round 1	C9	09:24	Middle	7.0							
2018-Jul-21	Round 1	C9	09:24	Middle	6.1							
2018-Jul-21	Round 1	C9	09:23	Bottom	8.4							
2018-Jul-21	Round 1	C9	09:23	Bottom	8.8	97.0	6.30	3.0)			

	T								Surface and			
									Mid-depth	Bottom		
						DO	Dissolved		Dissolved	Dissolved		Depth-
					TSS			Turbidity	Oxygen	Oxygen	Depth-Averaged	Averaged
	<u> </u>				(mg/L)	(%)	(mg/L)	(NTU)	(mg/L)	(mg/L)	Turbidity (NTU)	SS (mg/L)
Action Level									<u><5.76</u>	<u><5.84</u>	<u>>9.28</u>	<u>>5.69</u>
Limit Level	<u> </u>								<5.56	<5.64	>10.77	>6.23
			dicates trigg									
			t indicates tri			alues also u	inderlined.					
			indicates no		ce.							
Date	Round	Station	Time	Level								
2018-Jul-21	Round 1	C11	09:03	Surface	9.9				4 6.30	6.30	2.9	9.83
2018-Jul-21	Round 1	C11	09:03	Surface	9.6							
2018-Jul-21	Round 1	C11	09:02	Middle	9.7							
2018-Jul-21	Round 1	C11	09:02	Middle	10.2							
2018-Jul-21	Round 1	C11	09:01	Bottom	9.6							
2018-Jul-21	Round 1	C11	09:01	Bottom	10.0							_
2018-Jul-21	Round 1	C13	07:35	Surface	5.3					6.30	2.9	5.68
2018-Jul-21	Round 1	C13	07:35	Surface	6.0							
2018-Jul-21	Round 1	C13	07:34	Middle	5.5							
2018-Jul-21	Round 1	C13	07:34	Middle	5.7							
2018-Jul-21	Round 1	C13	07:33	Bottom	5.4							
2018-Jul-21	Round 1	C13	07:33	Bottom	6.2							
2018-Jul-21	Round 1	G2	10:14	Surface	5.9				0 6.30	6.30	1 .6	<u>6.13</u>
2018-Jul-21	Round 1	G2	10:14	Surface	5.1							
2018-Jul-21	Round 1	G2	10:12	Middle	5.5							
2018-Jul-21	Round 1	G2	10:12	Middle	6.6							
2018-Jul-21	Round 1	G2	10:10	Bottom	6.3							
2018-Jul-21	Round 1	G2	10:10	Bottom	7.4							
2018-Jul-21	Round 1	G3	09:52	Surface	4.2					6.30	1.9	4.85
2018-Jul-21	Round 1	G3	09:52	Surface	5.0							
2018-Jul-21	Round 1	G3	09:51	Middle	4.1							
2018-Jul-21	Round 1	G3	09:51	Middle	4.4							
2018-Jul-21	Round 1	G3	09:50	Bottom	5.2							
2018-Jul-21	Round 1	G3	09:50	Bottom	6.2							
2018-Jul-21	Round 1	M3	10:25	Surface	6.2					6.30	2.6	6.52
2018-Jul-21	Round 1	M3	10:25	Surface	6.4							
2018-Jul-21	Round 1	M3	10:24	Middle	6.7							
2018-Jul-21	Round 1	M3	10:24	Middle	6.0	97.2	6.30	2.7	7			
2018-Jul-21	Round 1	M3	10:23	Bottom	6.7	97.1	6.30	2.0	0			
2018-Jul-21	Round 1	МЗ	10:23	Bottom	7.1	97.3	6.30	2.	1			

Action Level Limit Level Red dot to to	he left of d	ata point ir	dicates trigg	er of Limit L	TSS (mg/L) _evel. Value	DO Saturation (%)	(mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76 <5.56	Bottom Dissolved Oxygen (mg/L) <5.84 < 5.64	Depth-Averaged Turbidity (NTU) >9.28 >10.77	Depth- Averaged SS (mg/L) >5.69 >6.23
			t indicates tri indicates no			'alues also u	nderlined.					
	Round	Station	Time	Level								
	Round 2	E2	10:58	Surface	4.3	97.2	6.30	2.3	8 6.35	6.30	2.2	5.60
2018-Jul-21	Round 2	E2	10:58	Surface	3.7							
	Round 2	E2	10:57	Middle	5.6							
	Round 2	E2	10:57	Middle	6.2							
	Round 2	E2	10:56	Bottom	6.7							
	Round 2	E2	10:56	Bottom	7.1							
	Round 2	F2	12:55	Surface	5.7				6.30	6.20	3.8	6.43
	Round 2	F2	12:55	Surface	5.2							
	Round 2	F2	12:54	Middle	7.0							
	Round 2	F2 F2	12:54 12:53	Middle	7.3							
	Round 2 Round 2	F2 F2	12.53	Bottom Bottom	6.2 7.2							
	Round 2	C6	11:48	Surface	3.6					6.30	3.0	3.42
	Round 2	C6	11:48	Surface	3.9					0.50	5.0	3.42
	Round 2	C6	11:47	Middle	3.2							
	Round 2	C6	11:47	Middle	2.9							
	Round 2	C6	11:46	Bottom	3.5							
	Round 2	C6	11:46	Bottom	3.4							
	Round 2	C7	12:05	Surface	3.1				6.35	6.30	3.2	4.47
	Round 2	C7	12:05	Surface	3.8	98.4	6.40		_			
2018-Jul-21	Round 2	C7	12:04	Middle	3.9	97.6	6.30	3.2	2			
2018-Jul-21	Round 2	C7	12:04	Middle	4.3	97.6	6.30	3.5	5			
2018-Jul-21	Round 2	C7	12:03	Bottom	5.3							
	Round 2	C7	12:03	Bottom	6.4							
	Round 2	C8	13:51	Surface	3.2					6.30	2.5	2.72
	Round 2	C8	13:51	Surface	2.6							
	Round 2	C8	13:50	Middle	2.9							
	Round 2	C8	13:50	Middle	2.2							
	Round 2	C8	13:49	Bottom	2.4							
	Round 2	C8	13:49	Bottom	3.0					0.00	0.0	0.70
	Round 2	C9	13:38	Surface	3.5				6.30	6.30	2.6	3.72
	Round 2 Round 2	C9	13:38	Surface	3.9							
	Round 2 Round 2	C9	13:37 13:37	Middle Middle	3.5							
	Round 2	C9 C9	13.37	Middle Bottom	2.8 4.0							
2010 111 21												

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76	Bottom Dissolved Oxygen (mg/L) <5.84	Depth-Averaged Turbidity (NTU) >9.28	Depth- Averaged SS (mg/L) >5.69
Limit Level			-1: - - - -		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		in the state		<5.56	<5.64	>10.77	>6.23
Red dot to t												
			t indicates tri			alues also u	naeriinea.					
			indicates no		ce.							
Date	Round	Station C11	Time	Level	2.7	98.4	6.40	0 -	1 0 40	00.00	0.6	2.00
2018-Jul-21	Round 2		13:18	Surface					1 6.40	6.30	2.6	3.98
2018-Jul-21 2018-Jul-21	Round 2 Round 2	C11 C11	13:18 13:17	Surface Middle	3.2 4.4							
2018-Jul-21 2018-Jul-21	Round 2 Round 2	C11	13:17	Middle	3.6							
2018-Jul-21 2018-Jul-21	Round 2	C11	13:17	Bottom	5.4 5.4							
2018-Jul-21 2018-Jul-21	Round 2	C11	13:16	Bottom	4.6							
2018-Jul-21	Round 2	C13	11:31	Surface	2.9					6.30	2.6	4.73
2018-Jul-21	Round 2	C13	11:31	Surface	2.3					0.30	2.0	4.73
2018-Jul-21	Round 2	C13	11:30	Middle	5.2							
2018-Jul-21	Round 2	C13	11:30	Middle	5.3							
2018-Jul-21	Round 2	C13	11:29	Bottom	6.0							
2018-Jul-21	Round 2	C13	11:29	Bottom	6.8							
2018-Jul-21	Round 2	G2	14:23	Surface	4.6					6.20	3.3	4.27
2018-Jul-21	Round 2	G2	14:23	Surface	3.8					0.20	0.0	1.27
2018-Jul-21	Round 2	G2	14:21	Middle	4.3							
2018-Jul-21	Round 2	G2	14:21	Middle	4.0							
2018-Jul-21	Round 2	G2	14:19	Bottom	4.0							
2018-Jul-21	Round 2	G2	14:19	Bottom	4.9							
2018-Jul-21	Round 2	G3	14:00	Surface	4.5					6.30	2.7	4.48
2018-Jul-21	Round 2	G3	14:00	Surface	3.9				_	_	-	_
2018-Jul-21	Round 2	G3	13:59	Middle	4.5							
2018-Jul-21	Round 2	G3	13:59	Middle	4.4		6.40	2.4	4			
2018-Jul-21	Round 2	G3	13:58	Bottom	4.9							
2018-Jul-21	Round 2	G3	13:58	Bottom	4.7		6.30					
2018-Jul-21	Round 2	МЗ	14:45	Surface	3.2	99.0	6.40	1.9	9 6.35	6.30	2.7	3.65
2018-Jul-21	Round 2	M3	14:45	Surface	3.8	98.7	6.40			-		-
2018-Jul-21	Round 2	M3	14:44	Middle	3.1	96.8	6.30	2.7	7			
2018-Jul-21	Round 2	M3	14:44	Middle	3.4	96.9	6.30					
2018-Jul-21	Round 2	M3	14:43	Bottom	3.8							
2018-Jul-21	Round 2	M3	14:43	Bottom	4.6	96.5	6.30	3.5	5			

			ndicates trigg				(mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76 <5.56	Bottom Dissolved Oxygen (mg/L) <5.84 <5.64	Depth-Averaged Turbidity (NTU) >9.28 >10.77	Depth- Averaged SS (mg/L) >5.69 >6.23
			t indicates tri i indicates no			alues also u	naeninea.					
Date	Round	Station	Time	Level								
2018-Jul-21	Round 3	E2	15:10	Surface	2.4					6.30	2.6	2.70
2018-Jul-21	Round 3	E2	15:10	Surface	2.1							
2018-Jul-21	Round 3	E2	15:09	Middle	2.4							
2018-Jul-21	Round 3	E2	15:09	Middle	3.2							
2018-Jul-21 2018-Jul-21	Round 3 Round 3	E2 E2	15:08 15:08	Bottom Bottom	3.3 2.8							
2018-Jul-21	Round 3	F2	16:32	Surface	4.3					6.30	2.5	4.20
2018-Jul-21	Round 3	F2	16:32	Surface	3.8				_	0.50	2.5	7.20
2018-Jul-21	Round 3	F2	16:31	Middle	4.3							
2018-Jul-21	Round 3	F2	16:31	Middle	3.9							
2018-Jul-21	Round 3	F2	16:30	Bottom	4.8							
2018-Jul-21	Round 3	F2	16:30	Bottom	4.1							
2018-Jul-21	Round 3	C6	15:51	Surface	5.7					6.30	2.5	<u>6.18</u>
2018-Jul-21	Round 3	C6	15:51	Surface	5.5	97.6	6.30					
2018-Jul-21	Round 3	C6	15:50	Middle	5.5		6.30					
2018-Jul-21	Round 3	C6	15:50	Middle	6.1							
2018-Jul-21	Round 3	C6	15:49	Bottom	7.4							
2018-Jul-21	Round 3	C6	15:49	Bottom	6.9							
2018-Jul-21	Round 3	C7	16:05	Surface	6.9				6.40	6.30	2.1	7.68
2018-Jul-21	Round 3	C7	16:05	Surface	7.0							
2018-Jul-21	Round 3	C7	16:04	Middle	7.5		6.40					
2018-Jul-21	Round 3	C7	16:04	Middle	8.2							
2018-Jul-21	Round 3	C7 C7	16:03	Bottom	8.6 7.9							
2018-Jul-21 2018-Jul-21	Round 3	C8	16:03 17:38	Bottom Surface	7.8					6.30	1.3	8.58
2018-Jul-21	Round 3	C8	17:38	Surface	6.8		6.40			0.30	1.0	-0.50
2018-Jul-21	Round 3	C8	17:37	Middle	8.8							
2018-Jul-21	Round 3	C8	17:37	Middle	8.2							
2018-Jul-21	Round 3	C8	17:36	Bottom	9.8							
2018-Jul-21	Round 3	C8	17:36	Bottom	10.5							
2018-Jul-21	Round 3	C9	17:21	Surface	6.3				6.35	6.30	3.4	<u>6.15</u>
2018-Jul-21	Round 3	C9	17:21	Surface	5.8					_	_	
2018-Jul-21	Round 3	C9	17:20	Middle	6.6							
2018-Jul-21	Round 3	C9	17:20	Middle	6.2	97.6	6.30					
2018-Jul-21	Round 3	C9	17:19	Bottom	6.1							
2018-Jul-21	Round 3	C9	17:19	Bottom	5.9	97.2	6.30	4.5	j			

Action Level					TSS (mg/L)	DO Saturation (%)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Surface and Mid-depth Dissolved Oxygen (mg/L) <5.76	Bottom Dissolved Oxygen (mg/L) <5.84	Depth-Averaged Turbidity (NTU) >9.28	Depth- Averaged SS (mg/L) >5.69
Limit Level									<5.56	< 5.64	>10.77	>6.23
	he left of d	ata point in	dicates trigg	er of Limit L	evel. Value	s also show	n in bold.					
			t indicates tri									
			indicates no									
Date	Round	Station	Time	Level								
2018-Jul-21	Round 3	C11	16:54	Surface	5.2	98.6	6.40	2.8	8 6.35	6.30	2.3	08.8
2018-Jul-21	Round 3	C11	16:54	Surface	9.0	98.8	6.40					
2018-Jul-21	Round 3	C11	16:53	Middle	8.8							
2018-Jul-21	Round 3	C11	16:53	Middle	9.0		6.30	1.8	8			
2018-Jul-21	Round 3	C11	16:52	Bottom	10.0	96.2	6.30	1.9	9			
2018-Jul-21	Round 3	C11	16:52	Bottom	10.8	96.2	6.30	2.5	2			
2018-Jul-21	Round 3	C13	15:38	Surface	8.3	99.1	6.40	1.1	7 6.38	6.30	2.8	9.50
2018-Jul-21	Round 3	C13	15:38	Surface	9.3	99.0	6.40	1.8	В			
2018-Jul-21	Round 3	C13	15:37	Middle	9.1	97.6	6.30	2.5	2			
2018-Jul-21	Round 3	C13	15:37	Middle	10.0	97.6	6.40	2.0	6			
2018-Jul-21	Round 3	C13	15:36	Bottom	9.9	97.3	6.30	4.	1			
2018-Jul-21	Round 3	C13	15:36	Bottom	10.4	97.3	6.30	4.3	3			
2018-Jul-21	Round 3	G2	18:22	Surface	7.6	99.2	6.40	1.8	8 6.43	6.30	1.8	9.12
2018-Jul-21	Round 3	G2	18:22	Surface	8.5	99.3	6.50	1.0	6			
2018-Jul-21	Round 3	G2	18:20	Middle	9.4	98.3	6.40	1.4	4			
2018-Jul-21	Round 3	G2	18:20	Middle	9.8	98.5	6.40	1.3	3			
2018-Jul-21	Round 3	G2	18:18	Bottom	10.1	97.2	6.30	2.4	4			
2018-Jul-21	Round 3	G2	18:18	Bottom	9.3	97.2	6.30	2.4	4			
2018-Jul-21	Round 3	G3	17:49	Surface	10.6	98.7	6.40			6.30	2.5	10.77
2018-Jul-21	Round 3	G3	17:49	Surface	9.9	98.7	6.40	1.5	5	_		-
2018-Jul-21	Round 3	G3	17:48	Middle	10.8	97.3	6.40					
2018-Jul-21	Round 3	G3	17:48	Middle	11.6	97.2	6.30	2.	5			
2018-Jul-21	Round 3	G3	17:47	Bottom	11.3	96.8	6.30					
2018-Jul-21	Round 3	G3	17:47	Bottom	10.4	96.8	6.30	3.0	6			
2018-Jul-21	Round 3	M3	18:44	Surface	6.8	98.5	6.40	1.	1 6.35	6.30	2.3	9.15
2018-Jul-21	Round 3	M3	18:44	Surface	7.9	98.5	6.40	1.3	3			
2018-Jul-21	Round 3	M3	18:43	Middle	8.4	97.1	6.30	2.5	2			
2018-Jul-21	Round 3	M3	18:43	Middle	8.3	97.1	6.30	2.	1			
2018-Jul-21	Round 3	M3	18:42	Bottom	12.2	96.4	6.30	3.	5			
2018-Jul-21	Round 3	M3	18:42	Bottom	11.3	96.4	6.30	3.4	4			

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