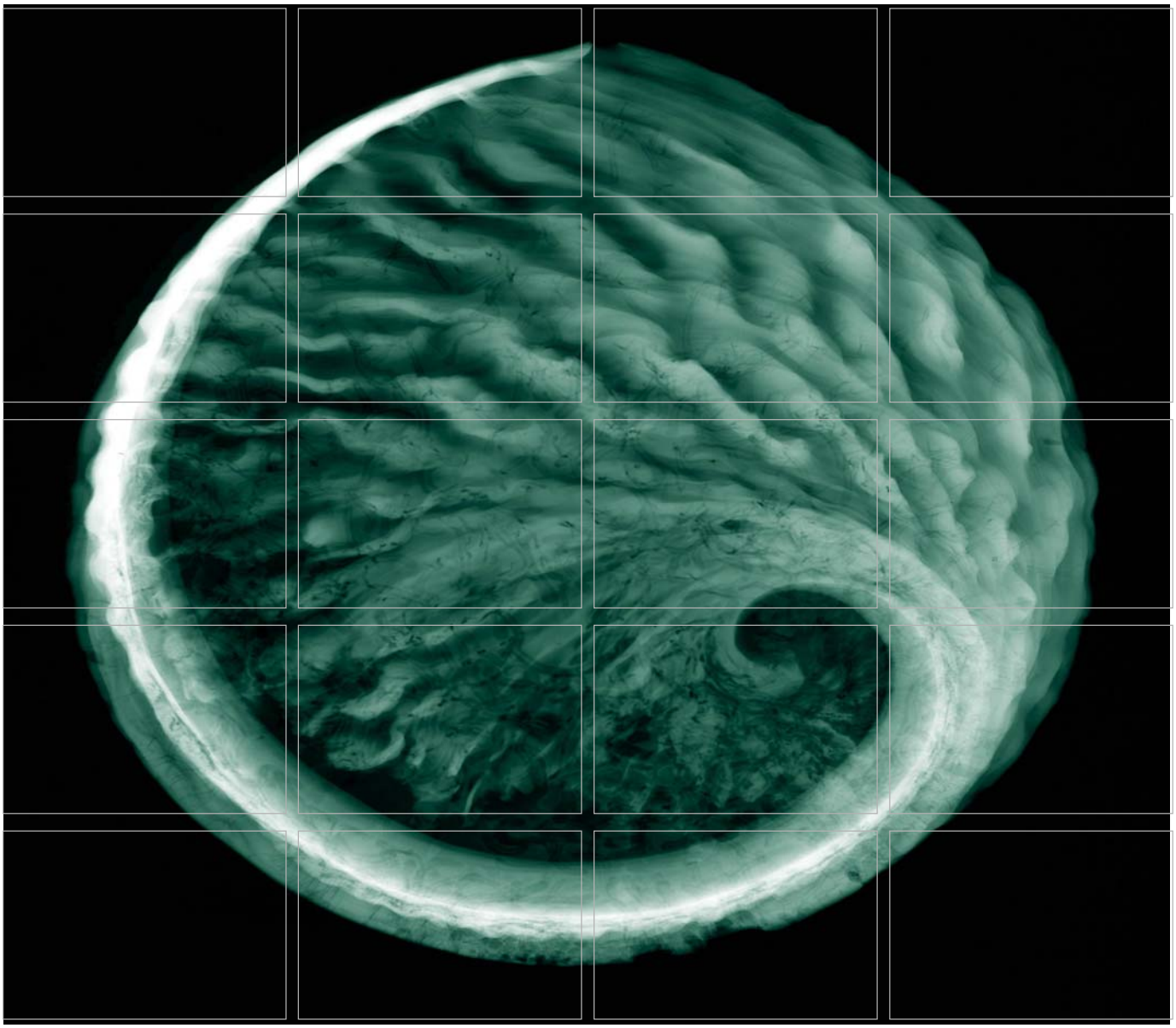

Permanent Aviation Fuel Facility (EP-262/2007/B)

Thirty-Eighth Monthly Environmental Monitoring and Audit Report – December 2009

26 January 2010

Environmental Resources Management
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香港機場管理局 AIRPORT AUTHORITY HONG KONG

Permanent Aviation Fuel Facility for Hong Kong International Airport

Environmental Certification Sheet
EP-262/2007/B

Reference Document/Plan

Document/~~Plan~~ to be ~~Certified~~/ Verified:	38th Monthly EM&A Report – December 2009
Date of Report:	26 January 2010
Date prepared by ET:	26 January 2010
Date received by IEC:	26 January 2010

Reference EP Condition

Environmental Permit Condition: Condition No.: 5.3

Content: *Environmental Monitoring and Audit (EM&A) for the Project*

5.3 Four hard copies and one electronic copy of the monthly EM&A Report for the Project shall be submitted to the Director within 2 weeks after the end of the reporting month. The submissions shall be certified by the ET Leader and verified by the IEC before submission to the Director. Additional copies of the submission shall be provided upon request by the Director.

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-262/2007/B

Craig A Reid, Environmental Team Leader: Date: 26 January 2010

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-262/2007/B

Roger Leung, Independent Environmental Checker: Date: 28 JAN 2010

Notes: EP-262/2007/B has replaced the former EP-262/2007/A, EP-262/2007 and EP-139-2002/A for the PAFF project after the resubmission of revised EM&A Manual and revised EIA Report respectively.

REPORT

Permanent Aviation Fuel Facility (EP-262/2007/B)

Thirty-Eighth Monthly Environmental Monitoring and Audit Report – December 2009

26 January 2010

Prepared by: Francesca Zino/ Karen Lui/ Craig A Reid

Document Code: 0018105_EMAR_Dec 09_v0.doc

For and on behalf of Environmental Resources Management	
Approved by:	Craig A Reid
Signed:	
Position:	Environmental Team Leader
Date:	26 January 2010

CONTENTS

LIST OF TABLES

LIST OF ANNEXES

EXECUTIVE SUMMARY

The construction works for the Permanent Aviation Fuel Facility resumed on 9 July 2007. This **thirty-eighth** monthly Environmental Monitoring and Audit (EM&A) report presents the EM&A work carried out during the period from **1 December** to **31 December 2009** in accordance with the *EM&A Manual*.

Breaches of all Action and Limit Levels

Water quality monitoring during dredging activities recorded no exceedance of Action or Limit Levels for either Bottom or Depth-averaged Dissolved Oxygen (DO). Four exceedances of Depth-averaged Turbidity were recorded on 3 December but these were all exceedances of Action Levels and not Limit Levels. Exceedances of Action and Limit levels for Depth-averaged Suspended Solids were recorded on 3 and 5 December.

Following review of data in accordance with the procedures specified in the *EM&A Manual*, all these exceedances were considered to be due to natural fluctuation rather than the Project Works.

Complaint Log

No environmental complaints were received during the reporting period.

Notifications of any Summons and Successful Prosecutions

No environmental summons or prosecutions were received in this reporting period.

Reporting Changes

There were no reporting changes in the reporting period.

Future Key Issues

- Dust release and suppression; and
- Backfilling of rock armour over the pipelines.

1 INTRODUCTION

Leighton Contractors (Asia) Limited (LCAL) has appointed ERM-Hong Kong, Limited (ERM) as the Environmental Team (ET) to implement the Environmental Monitoring and Audit (EM&A) programme for the Permanent Aviation Fuel Facility (the Project) during construction works.

The construction works for PAFF commenced in November 2005 based upon the previous EIA (*EIAO Register Number AEIAR-062-2002*) conducted and the Environmental Permit *EP-139/2002* granted on the 28th August 2002. Due to minor changes to the detailed layout of the site and the site boundary, application for Variation to the Environmental Permit (VEP) (*VEP-133/2004*) was submitted to the Director of Environmental Protection (DEP) for approval. The variation to the EP (*EP-139/2002/A*) was granted by the EPD in February 2004.

The decision by the EPD to grant the above Environmental Permit was, however, subject to a Judicial Review. The Judicial Review sided in the favour of the DEP, as did the subsequent Judgement from the Court of Appeal from the High Court for Judicial Review in March 2005. However, the DEP's decision to grant the EP was quashed by the Judgement of the Court of Final Appeal of July 2006.

The construction works were stopped following the Judgement of the Court of Final Appeal of July 2006. As such, in order to continue with the construction of the project, the project went through the statutory procedures under the EIAO again with a new design in order to obtain an environmental permit. The revised EIA was submitted in 2007 and the environmental permit (*EP-262/2007*) was granted in May 2007. *EP-262/2007* has been amended to *EP-262/2007/A* and issued by the EPD on 30 November 2007. A further Variation to the Environmental Permit was approved to allow dredging works to continue until March 2008. As such, *EP-262/2007/A* has been amended to *EP-262/2007/B* and was issued by the EPD on 27 February 2008.

The construction works and EM&A requirements were resumed on 9 July 2007 following the latest requirements of the *EP-262/2007/B* and *EM&A Manual*. Details regarding the EM&A requirements and changes should refer to the updated *EM&A Manual*. For the marine works, all piling activities were completed before the previous suspension of construction works in 2006.

1.1 PURPOSE OF THE REPORT

This is the **thirty-eighth** monthly EM&A Report which summarizes the monitoring results and audit findings for the EM&A programme during the reporting period from **1 December** to **31 December 2009**.

2 ENVIRONMENTAL STATUS

2.1 PROJECT AREA

The project area is in Area 38 of Tuen Mun and the pipelines are located in Urmston Road between Tuen Mun Area 38 and Sha Chau. The site is illustrated in ***Annex A***.

2.2 ENVIRONMENTAL SENSITIVE RECEIVERS

No air and noise sensitive receivers were identified close to the project area. However, water sensitive receivers and ecological sensitive receivers were identified in the EIA study, and are shown in ***Annex B***.

2.3 MAJOR CONSTRUCTION ACTIVITIES

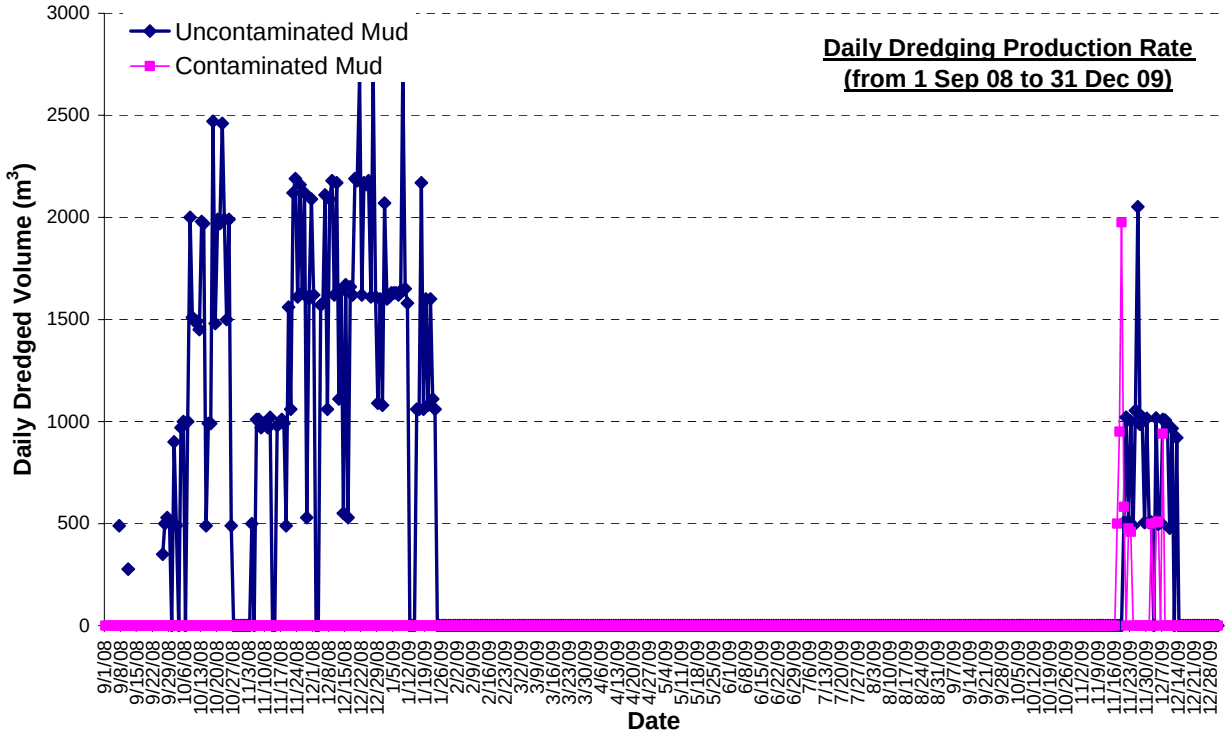
A summary of the major works undertaken in this reporting period is shown in ***Table 2.1***. Initial marine dredging operations were completed on 23 January 2009. Due to pipeline repairs, dredging works were resumed on 13 November 2009 and completed on 11 December 2009. ***Table 2.2*** presents the cumulative quantity of excavated materials from September 2008 up to 31 December 2009. Daily and cumulative dredging production rates are illustrated in ***Figure 2.1***.

Table 2.1 Summary of Works Undertaken During the Reporting Period

Area	Works undertaken
Tuen Mun Area 38	• Tank Farm, Roof Truss and Bund Wall Construction • Permanent Drainage Construction • Jetty Works (Non-piling) • Commissioning Activities for Phase 1a (the first four tanks)
Submarine Pipeline Route	• Riser connections at Sha Chau • Backfilling and placing of rock armour over the pipelines

Table 2.2 Cumulative Quantity of Excavated Marine Sediments

Type of Excavated Materials	Period Bulk Volume (m^3)	Cumulative Bulk Volume (m^3)
From 17 December 2007 to 31 March 2008		
Contaminated Mud	71,564	71,564
Uncontaminated Mud	123,953	123,953
From 1 September 2008 to 23 January 2009		
Contaminated Mud	0	71,564
Uncontaminated Mud	149,147	273,100
From 13 November 2009 to 11 December 2009		
Contaminated Mud	7,399	78,963
Uncontaminated Mud	18,561	291,661



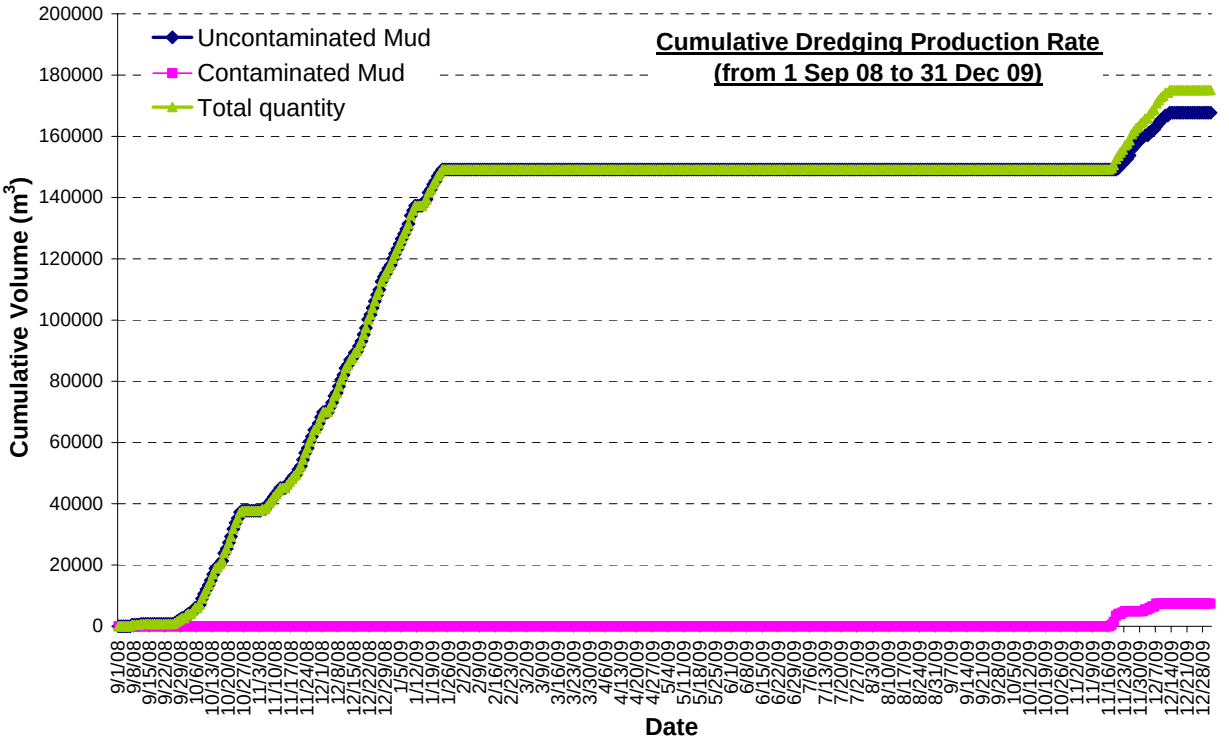


Figure 2.1 Daily and cumulative volumes (m³) of excavated materials (both contaminated and uncontaminated mud) from 1 September 2008 to 31 December 2009.

Ref: 0018105_Figure 2.1_dredging volume.doc

2.4 MONITORING SCHEDULE OF THE REPORTING MONTH

Daily water quality monitoring during dredging activities commenced on 13 November 2009 and finished on 11 December 2009. The water quality monitoring schedule for December 2009 is presented in ***Annex C***.

2.5 STATUS OF ENVIRONMENTAL APPROVAL DOCUMENTS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since July 2007 is presented in ***Table 2.3***.

Table 2.3 Summary of Environmental Licensing, Notification and Permit Status

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
Environmental Permit	*EP-262/2007/B*	Throughout Project	Issued on 27 February 2008 (*EP-262/2007/A* on 30 November 2007, *EP-262/2007* issued on 31 May 2007, *EP-139/2002* originally granted on 28 August 2002 and *EP-139/2002/A* granted on 24 February 2004 were superseded)
Chemical Waste Producer Registration	*WPN 5111-421-L2174-25*	Throughout Project	Issued on 10 November 2005
Notification of Construction Works under Air Pollution Control (Construction Dust) Regulation	*H2104/U1D/5542/DG/DH/PL*	Throughout Project	Notification on 6 July 2007
Construction Noise Permit	*GW-RW0676-07*	21 December 2007 to 19 June 2008	For land-based works including air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans and generators
	GW-RW0677-07	21 December 2007 to 29 February 2008	For marine dredging operation including grab dredger, tug boat, split hopper barge and motor sampan

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
	GW-RW0678-07	21 December 2007 to 18 June 2008	For marine jetty works including concrete pump derrick barges, hand-held grinders, generators, air compressors, boring machines, water pumps, tug boat, grout mixers and grout pumps
	GW-RW0094-08	1 March to 31 March 2008	For marine dredging operation including grab dredger, tug boat, split hopper barge and motor sampan
	GW-RW0312-08	04 July 2008 to 22 December 2008	For marine jetty works including concrete pump derrick barges, hand-held grinders, generators, air compressors, boring machines, water pumps, tug boat, grout mixers and grout pumps
	GW-RW0313-08	04 July 2008 to 19 December 2008	For land-based works including air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans and generators
	GW-RW0373-08	1 August 2008 to 20 January 2009	For land-based works including air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans, generators, stirrer, jet chisel, water jet machine and dehumidifier
	GW-RW0368-08	1 September to 30 November 2008	For marine dredging operation including grab dredger, tug boat, split hopper barge and motor sampan

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
	GW-RW0054-09	16 February 2009 to 5 August 2009	For land-based and marine works including passenger launch, winch, welding machine, grinder, generator, power pack, tug boat, crane, air compressor, roller, hoist and derrick barge
	GW-RW0261-09	3 July 2009 to 3 November 2009	For land-based and marine works including derrick barge, grinder, crane, tug boat, drill, welding machine, hopper barge, motor sampan, air compressor
	GW-RW0299-09	21 July 2009 to 20 January 2010	For land-based works including air compressors, breakers, excavators, wheeled loaders, mobile cranes, concrete lorry mixers, hand-held pokers, bar benders/cutters, wood saws, grinders, submarine water pump, lorries with crane, dump trucks, rollers, ventilation fans, generators, stirrer, jet chisel, water jet machine and dehumidifier etc
	GW-RW0459-09	26 October 2009 to 28 February 2010	For marine dredging operation including air compressors, derrick barge, tug boat, mobile crane, hand-held grinder, generator, hand-held drill, winch, welding machine, motor sampan, grab dredger hopper barge etc
Marine Dumping Permit	*EP/MD/08-064*	13 December 2007 to 29 February 2008	For Type 1 – Open Sea Disposal
	EP/MD/08-065	13 December 2007 to 12 January 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-071	13 January 2008 to 12 February 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-090	3 March to 31 March 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-091	3 March to 31 March 2008	For Type 1 – Open Sea Disposal
	EP/MD/09-018	1 September to 30 September 2008	For Type 1d & Type 2 marine disposal

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
	EP/MD/09-032	1 October to 31 October 2008	For Type 1d & Type 2 marine disposal
	EP/MD/09-017	1 September to 30 November 2008	For Type 1 – Open Sea Disposal
	EP/MD/09-039	1 December 2008 to 31 January 2009	For Type 1 – Open Sea Disposal
	EP/MD/10-041	11 November 2009 to 31 December 2009	For Type 1 – Open Sea Disposal
	EP/MD/10-042	11 November 2009 to 10 December 2009	For Type 1 – Open Sea Disposal (Dedicated Site) & Type 2 – Confined Marine Disposal
Wastewater Discharge License	*EP760/421/011399/l*	15 March 2006 to 31 March 2011	Issued on 15 March 2006

2.6 *COMMUNITY LIAISON GROUP MEETING*

According to the EP requirements, a Community Liaison Group (CLG) was established within three months of commencement of construction of the Project. The major duty of the CLG is to advise on and monitor the proper design, construction and operation of the Project. The CLG comprises representatives from Airport Authority, members of Tuen Mun community and academics. Whereas previously the CLG would meet quarterly, following their last meeting on 13 September 2009, it was agreed to meet every six months. Therefore, during the reporting period, no meetings were organised by the CLG. The details of the CLG (including Membership and its Terms of Reference) and the minutes of previous meetings can be found on the Project website (http://www.paffhk.com).

2.7 *SUMMARY OF NON-COMPLIANCE WITH THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS*

Water quality monitoring during dredging activities recorded no exceedance of Action or Limit Levels for either Bottom or Depth-averaged Dissolved Oxygen (DO). Four exceedances of Depth-averaged Turbidity were recorded on 3 December but these were all exceedances of Action Levels and not Limit Levels. Exceedances of Action and Limit levels for Depth-averaged Suspended Solids were recorded on 3 and 5 December. A summary of the exceedances occurring during the reporting period is shown in *Table 2.4* and a description of the actions taken following these non-compliances is detailed in *Section 3.2.*

Table 2.4 ***Summary of Exceedances of Action and Limit Levels Recorded during the Reporting Period***

Date	Parameter	Monitoring Stations	
		Mid-Ebb Tide	**Mid-Flood Tide**
3 Dec 2009	Turbidity (Depth-averaged)		IMO5*, MPB1*, MPB2*, MP*
	SS (Depth-averaged)	MPB1	IMO5, IMO6*, MPB1, MPB2, MP
5 Dec 2009	SS (Depth-averaged)		IMO5, IMO6

*Note: Action Level but not Limit Level exceedance

As per the requirements of the *EM&A Manual*, incidents were notified to the Franchisee's Site Representative, the Contractor and the Independent Environmental Checker upon identification of an exceedance.

2.8 SUMMARY OF ENVIRONMENTAL COMPLAINTS

No environmental complaints were received during the reporting period. A summary of environmental complaints since project commencement is presented in ***Annex D.***

2.9 SUMMARY OF ENVIRONMENTAL SUMMONS

No summons was received in this reporting period. A summary of legal proceeding since project commencement is presented in ***Annex D***

3.1 PREVIOUS ENVIRONMENTAL DEFICIENCIES AND FOLLOW-UP ACTIONS

As no environmental complaints were received over the last reporting period, no follow-up actions were required.

Site inspections were carried out by the ET on 2, 10, 18, 23 and 30 December 2009. Overall, the site was in good orderly manner and no non-compliance was found. Environmental deficiencies and follow-up actions/mitigation measures were identified during the inspections, as follows:

Water Quality

- On 2 December, a sediment plume was observed in the run-off drainage near the Jetty area. The Contractor was advised to settle the run-off via a sediment tank before being discharged.

- On 10 December, water was observed in the drip tray of the diesel drum outside the workshop area and in the air compressor by Tank 11. The Contractor was advised to clear all this water as soon as practicable.

- On 23 December, the bunding round the generator in the workshop area was found to have a pipe leaking water from inside to outside. The Contractor was advised to bung the pipe as soon as possible.

- On 30 December, the drainage system was not in operation as the sediment tanks had been removed due to the construction works. The Contractor was advised to reinstate the sediment tanks and restore the drainage system as soon as possible as there had been some rain recently and there was some surplus water onsite.

Waste/Chemical Management

- On 2 December, general refuse had accumulated without receptacles in the tank farm area and on 10 December, debris in black plastic bags was found near the Jetty Area. The Contactor was advised to remove and store all refuse in proper containers and to place black plastic bags of debris in a skip or remove them as soon as possible.

- On 10 December, empty paint cans were found in the chemical waste storage area. The Contractor was advised to place them in black plastic bags and label them appropriately. Drums with no labels and no drip trays were also found near the office block and the Contractor was advised to correct this as soon as possible.

- On 10, 23 and 30 December, none of the painting subcontractor's chemical waste disposal trip tickets for disposal of their empty paint cans, were

available. The Contractor was advised to follow this up with the subcontractor as soon as possible.

- On 18 December, the chemical waste storage by Tank 8 was found to be full. The Contractor was advised to get the waste cleared by a licensed collector immediately. On 23 December, chemical waste was observed outside of the chemical waste storage area by Tank 8. The Contractor was advised to clear it to the designated chemical waste area as soon as possible. On 30 December, the chemical waste storage area behind the offices was observed to be full and a dead rat was found by the door. The Contractor advised to clear both immediately.

- On 2 December, some oil stains were found on the floor inside the bunded area of the machinery on the grab dredger. The Contractor was advised to clear the oil as soon as possible.

- On 10 December, two oil drums were found on the grab dredger. The Contractor was advised to put the drums inside a trip tray as soon as possible.

- On 10 December, waste receptacles on the grab dredger were found to be of inadequate capacity. The Contractor was advised to provide larger waste receptacles as soon as possible.

- On 10 December, a leaking diesel pump was found on the grab dredger, with a plastic bucket below it to catch the drips. The Contractor was advised to get the pump fixed as soon as possible.

General Housekeeping

- On 18 December, a small amount of soil was observed outside the vehicle entrance on the site access road. The Contractor was advised to clean it as soon as possible and to implement wheel-wash procedures properly.

- On 23 December, a water pipe connection and another hosepipe behind Tank 11 were found to be leaking and producing stagnant pools of water. Similarly, on 30 December, water was found accumulated around Tank 11. The Contractor was asked to fix the leaking water and clear/fill the stagnant water as soon as possible.

The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

3.2 *DESCRIPTION OF ACTIONS TAKEN IN EVENT OF NON-COMPLIANCE AND DEFICIENCY REPORTING*

Water quality monitoring during dredging activities recorded no exceedance of Action or Limit Levels for either Bottom or Depth-averaged Dissolved Oxygen (DO). Four exceedances of Depth-averaged Turbidity were recorded

on 3 December but these were all exceedances of Action Levels and not Limit Levels. Exceedances of Action and Limit levels for Depth-averaged Suspended Solids were recorded on 3 and 5 December. A summary of the exceedances recorded during the reporting period is shown in *Section 2.7, Table 2.4* and graphical representations of the results are presented in ***Annex G***. Descriptions of the actions taken following identification of non-compliance are discussed below.

Although dredging operations were undertaken during the reporting period, on examination of the results, it was concluded that all the exceedances described above were unlikely to be caused by the Project for the following reasons:

- Not all parameters showed the same trend of exceedance results at the same stations at the same tide (eg on 3 December there were exceedances of Depth-averaged Turbidity and Suspended Solids at various stations, but there were no exceedances of Bottom or Depth-averaged DO at any station throughout the day).

- On the preceding and following days, when similar dredging operations were being conducted, there were no exceedances recorded at any of the stations.

- There have been incidents in the past in this area where exceedances have occurred despite the dredger not being in operation (eg 10 Feb 2008, exceedance in SS despite no dredging work; 17 & 22 Dec 2007, 4 & 5 Jan 2008, 6 & 10 Feb 2008, exceedances in Turbidity despite no dredging work).

Although the measured levels of Suspended Solids were particularly high at MPB1 on 3 December 2009 and it was initially considered a possibility that the exceedances were due to the project works, MPB1 station was located far away from the dredging operation at the time. Given that, as reported previously, there have also been incidents in the past in this area where exceedances have occurred despite the dredger not being in operation, it was concluded that the exceedances were unlikely to be due to the project works.

As per the requirements of the *EM&A Manual*, incidents were notified to the Franchisee's Site Representative, the Contractor and the Independent Environmental Checker upon identification of an exceedance.

3.3 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

The implementation status of environmental mitigation measures and requirements as stated in the *EIA Report*, *Environmental Permits* and *EM&A Manual* during the reporting period is summarized in ***Annex E***.

4 ENVIRONMENTAL MONITORING

4.1 AIR AND NOISE

Air and Noise monitoring is not required for the project.

4.2 WATER QUALITY

In accordance to the EM&A Manual, water quality monitoring was carried out during dredging activities, which commenced on 13 November 2009 and were completed on 11 December 2009. QA/QC reports for Suspended Solids testing are presented in ***Annex F***. Monitoring data and graphical presentations of the results are included in ***Annex G***.

Results of the monitoring demonstrated that all measured Bottom and Depth-averaged dissolved oxygen (DO) levels at all Impact Stations were compliant with the Action and Limit Levels specified in the *EM&A Manual*. Concentrations of Depth-averaged Turbidity were also all compliant with Limit levels but exceeded Action Levels on 3 December, at four stations. Exceedances of Action and Limit Levels for Depth-averaged Suspended Solids occurred on 3 and 5 December. A review of the above exceedances concluded that they were not attributable to Project works and were likely due to natural variation (see *Section 3.2* for further details).

4.3 POPS MONITORING

Biweekly monitoring of water samples was conducted for Persistent Organic Pollutants (POPs) analysis on 8 December. Total PCBs, PAHs and DDTs were all below detection limits. Monitoring results and QA/QC reports for the available POPs testing are presented in ***Annex H***.

4.4 WASTE MANAGEMENT

According to EP *Condition 3.3,* the Contractor's revised Waste Management Plan (Revision 5) (WMP), which has been certified by the ET and IEC, was submitted to the EPD on 5 November 2008.

4.5 CULTURAL HERITAGE

The *Watching Brief Report*, verified by the Independent Environmental Checker, was submitted to the EPD and AMO on 9 May 2008.

4.6 LANDSCAPE AND VISUAL

According to the *EIA report* and *EM&A Manual*, mitigation measures and site inspection are required during the landscaping/planting works. The berm/landscaping bund was habilitated by vegetation which was grown during the project suspension period.

The weekly site inspections included general audits on landscape and visual issues to ensure that the site was in an orderly and acceptable manner.

4.7 LAND CONTAMINATION, HAZARD TO LIFE AND FUEL SPILL RISK

According to the *EIA report* and *EM&A Manual*, mitigation measures and design phase audit are required to minimise the risk of fuel spill and hazards. In 2007, the Contractor submitted an updated design audit plan according to the EP requirements. These were certified and verified by the ET and IEC respectively and submitted to the EPD on 7 November 2007.

Pursuant to *Condition 3.5* of the EP, the Contractor submitted design drawings and supporting information according to the EP requirements. The ET certified the documents and submitted to the IEC for verification on 24 and 25 November 2009.

Weekly site inspection covered the waste management aspects which included measures to prevent land contamination by chemical wastes.

4.8 ECOLOGY

Dolphin Visual Monitoring

In accordance to *EM&A Manual*, dolphin monitoring was undertaken during dredging activities from 13 November 2009 to 11 December 2009.

During the reporting period, a total of four dolphin sightings were recorded. While all the sitings were recorded within the exclusion zone of 500m radius from the dredger, only one occurred during dredging. No action was considered necessary should dolphins are sighted within the zone during dredging according to the *EM&A Manual*. The sighting locations and field records are presented in ***Annex I.***

4.9 EM&A MANUAL

The *EM&A Manual* for the Project was updated by the ET to include the detailed arrangements of setting up a CLG, carrying out design audit, and monitoring of Persistent Organic Pollutants during the dredging phase of construction of the Project. The revised *EM&A Manual*, which was verified by the IEC, was submitted to the EPD on 1 April 2009.

4.10 BASELINE WATER QUALITY MONITORING

The *Final Baseline Monitoring Report* was submitted to the EPD on 20 February 2008 and placed under the EIAO register.

5 FUTURE KEY ISSUES

5.1 KEY ISSUES FOR THE NEXT MONTH

Key issue to be considered in the next month will be:

- dust release and suppression; and
- backfilling of rock armour over pipeline.

5.2 IMPACT PREDICTION FOR THE NEXT MONTH

Provided that environmental mitigation measures including good on-site practises are properly implemented, it is not expected that unacceptable adverse impacts will arise.

5.3 WORKS AND MONITORING SCHEDULE FOR THE NEXT MONTH

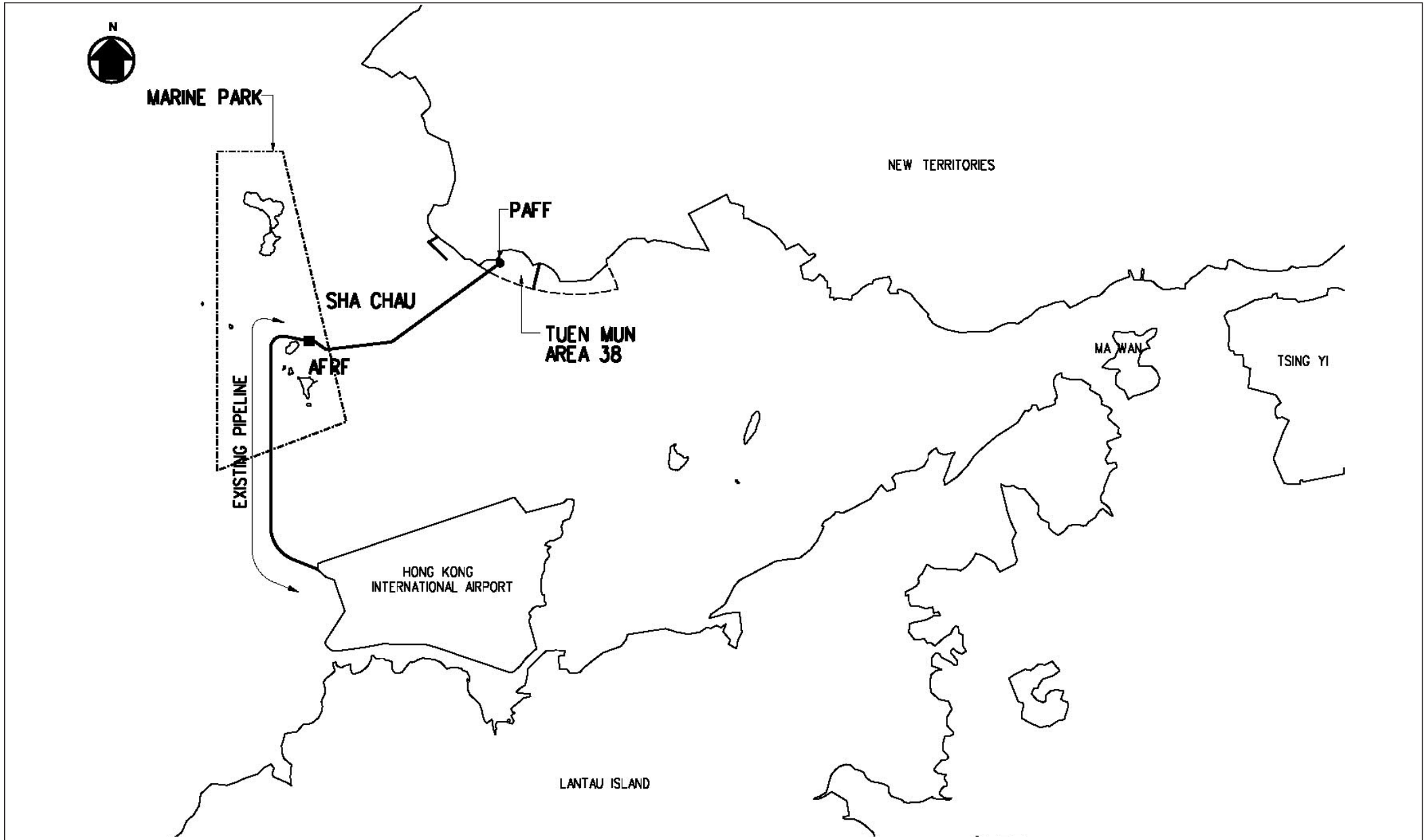
Work programme for the next month includes:

- backfilling and placing of rock armour works;
- riser connections at Sha Chau;
- jetty platform works (non-piling);
- site works (construction works for tank farm, drainages, bund wall, security wall, emergency vehicle access road etc); and,
- commissioning activities for Phase 1a (the first four tanks).

Weekly site inspections will be undertaken in accordance with the *EM&A Manual*.

Annex A

Project Location



Annex A

Location of PAFF

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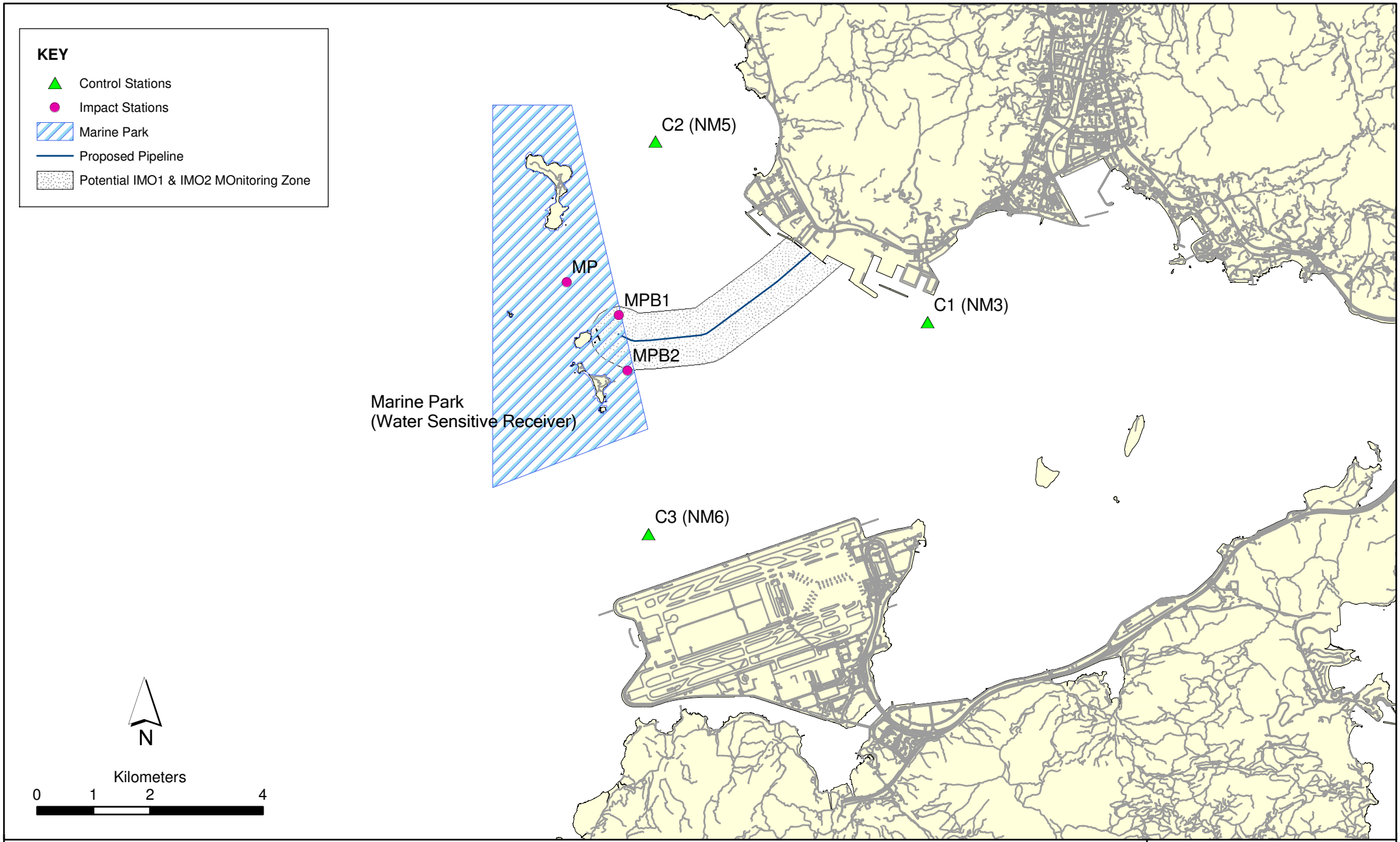
DATE: 12/11/2007

Environmental
Resources
Management

ERM

Annex B

Water Quality and Ecological Sensitive Receivers



Annex B

Water Sensitive Receiver and Water Quality Monitoring Locations

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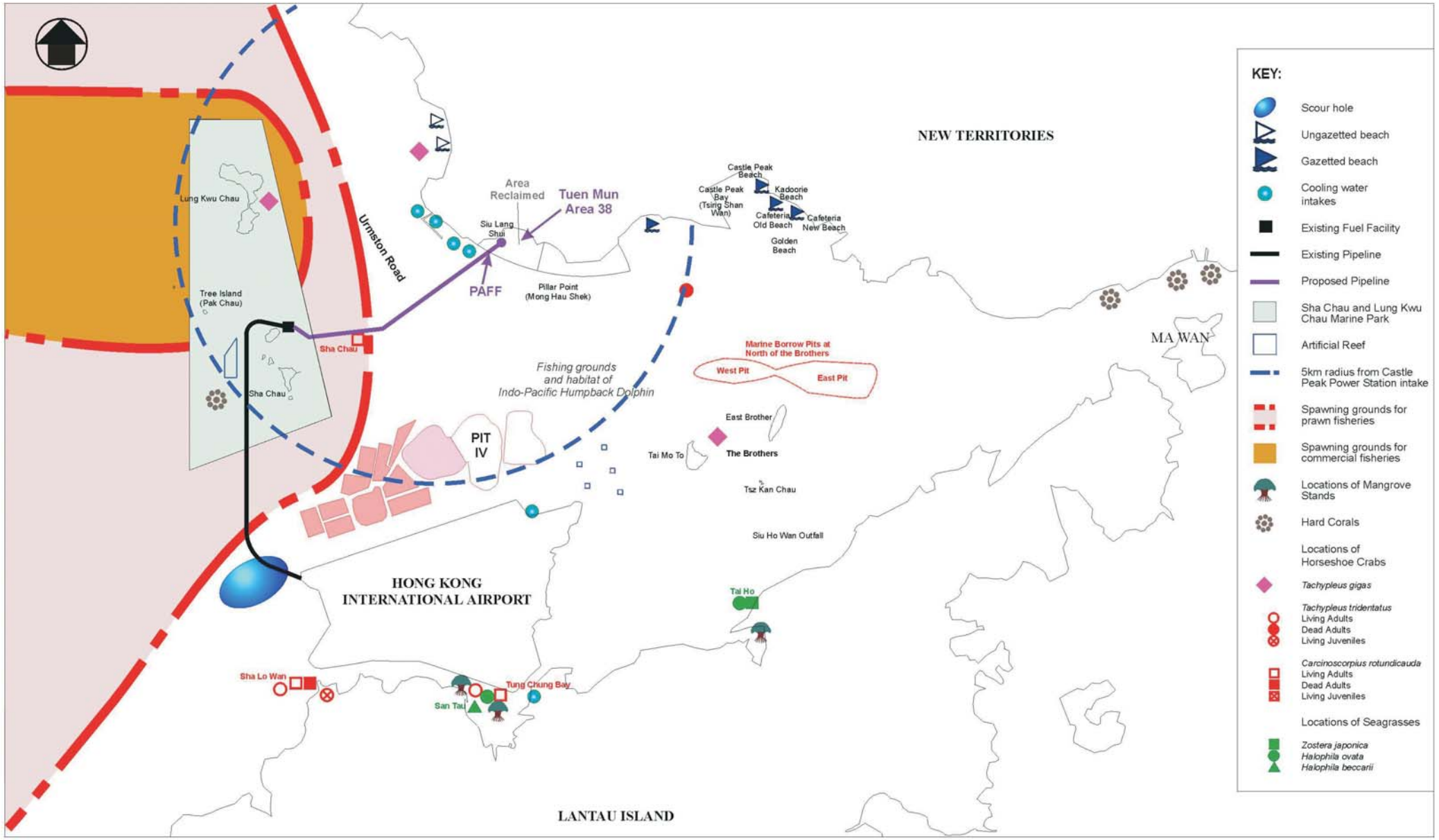
Date: 23/01/2006

Environmental Resources Management

ERM



Annex B

Water Quality and Ecological Sensitive Receivers

(Soure : PAFF for Hong Kong International Airport EIA, Mouchel 2002)

FILE: C2475aa
DATE: 12/11/2007

Environmental Resources Management

ERM

Annex C

Water Quality Monitoring Schedule for the Reporting Period

Impact Water Quality Monitoring Schedule for December 2009

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Dec	2-Dec	3-Dec	4-Dec	5-Dec
		Mid-Flood 11:55 Mid-Ebb 17:16	Mid-Flood 7:29 Mid-Ebb 12:42	Mid-Flood 8:20 Mid-Ebb 13:28	Mid-Flood 9:10 Mid-Ebb 14:14	Mid-Flood 9:59 Mid-Ebb 15:03
6-Dec	7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec
Mid-Flood 10:49 Mid-Ebb 15:54	Mid-Flood 11:39 Mid-Ebb 16:51	Mid-Flood 12:32 Mid-Ebb 17:58 **(POP SAMPLING)**	Mid-Flood 13:24 Mid-Ebb 19:26	Mid-Ebb 7:18 Mid-Flood 14:12	Mid-Ebb 8:30 Mid-Flood 14:54	No dredging
13-Dec	14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec
No dredging	No dredging	No dredging	No dredging	No dredging	No dredging	No dredging
20-Dec	21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec
No dredging	No dredging	No dredging	No dredging	No dredging	No dredging	No dredging
27-Dec	28-Dec					
No dredging	No dredging	No dredging	No dredging	No dredging	No dredging	No dredging

Annex D

Cumulative Complaints Statistics

D1 CUMULATIVE STATISTICS OF COMPLAINTS

Summary of Environmental Complaints

Reporting Period	Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
Before construction works	1	1	Dust
18/11/05 – 15/12/05	1	2	Dust
15/12/05 – 14/01/06	0	2	Nil
15/01/06 – 14/02/06	0	2	Nil
15/02/06 – 14/03/06	0	2	Nil
15/03/06 – 14/04/06	0	2	Nil
15/04/06 – 14/05/06	0	2	Nil
15/05/06 – 14/06/06	0	2	Nil
15/06/06 – 14/07/06	0	2	Nil
Re-commencement of construction works on 9th July 2007			
09/07/07 – 31/07/07	0	2	Nil
01/08/07 – 31/08/07	0	2	Nil
01/09/07 – 30/09/07	0	2	Nil
01/10/07 – 31/10/07	0	2	Nil
01/11/07 – 30/11/07	0	2	Nil
01/12/07 – 31/12/07	0	2	Nil
01/01/08 – 31/01/08	0	2	Nil
01/02/08 – 29/02/08	0	2	Nil
01/03/08 – 31/03/08	0	2	Nil
01/04/08 – 30/04/08	0	2	Nil
01/05/08 – 31/05/08	0	2	Nil
01/06/08 – 30/06/08	0	2	Nil
01/07/08 – 31/07/08	0	2	Nil
01/08/08 – 31/08/08	0	2	Nil
01/09/08 – 30/09/08	0	2	Nil
01/10/08 – 31/10/08	0	2	Nil
01/11/08 – 30/11/08	0	2	Nil
01/12/08 – 31/12/08	0	2	Nil
01/01/09 – 31/01/09	0	2	Nil
01/02/09 – 28/02/09	0	2	Nil
01/03/09 – 31/03/09	0	2	Nil
01/04/09 – 30/04/09	0	2	Nil
01/05/09 – 31/05/09	0	2	Nil
01/06/09 – 30/06/09	0	2	Nil
01/07/09 – 31/07/09	0	2	Nil
01/08/09 – 31/08/09	0	2	Nil
01/09/09 – 30/09/09	0	2	Nil
01/10/09 – 31/10/09	0	2	Nil
01/11/09 – 30/11/09	0	2	Nil
01/12/09 – 31/12/09	0	2	Nil

Summary of Environmental Summons

Reporting Period	Environmental Summons		
	Frequency	Cumulative	Summon Nature
18/11/05 – 15/12/05	0	0	Nil
16/12/05 – 14/01/06	0	0	Nil
15/01/06 – 14/02/06	0	0	Nil
15/02/06 – 14/03/06	0	0	Nil
15/03/06 – 14/04/06	0	0	Nil
15/04/06 – 14/05/06	0	0	Nil
15/05/06 – 14/06/06	0	0	Nil
15/06/06 – 14/07/06	0	0	Nil
Re-commencement of construction works on 9th July 2007			
09/07/07 – 31/07/07	0	0	Nil
01/08/07 – 31/08/07	0	0	Nil
01/09/07 – 30/09/07	0	0	Nil
01/10/07 – 31/10/07	0	0	Nil
01/11/07 – 30/11/07	0	0	Nil
01/12/07 – 31/12/07	0	0	Nil
01/01/08 – 31/01/08	0	0	Nil
01/02/08 – 29/02/08	0	0	Nil
01/03/08 – 31/03/08	0	0	Nil
01/04/08 – 30/04/08	0	0	Nil
01/05/08 – 31/05/08	0	0	Nil
01/06/08 – 30/06/08	0	0	Nil
01/07/08 – 31/07/08	0	0	Nil
01/08/08 – 31/08/08	0	0	Nil
01/09/08 – 30/09/08	0	0	Nil
01/10/08 – 31/10/08	0	0	Nil
01/11/08 – 30/11/08	0	0	Nil
01/12/08 – 31/12/08	0	0	Nil
01/01/09 – 31/01/09	0	0	Nil
01/02/09 – 28/02/09	0	0	Nil
01/03/09 – 31/03/09	0	0	Nil
01/04/09 – 30/04/09	0	0	Nil
01/05/09 – 31/05/09	0	0	Nil
01/06/09 – 30/06/09	0	0	Nil
01/07/09 – 31/07/09	0	0	Nil
01/08/09 – 31/08/09	0	0	Nil
01/09/09 – 30/09/09	0	0	Nil
01/10/09 – 31/10/09	0	0	Nil
01/11/09 – 31/11/09	0	0	Nil
01/12/09 – 31/12/09	0	0	Nil

Annex E

Implementation Programme of Mitigation Measures

ANNEX E IMPLEMENTATION SCHEDULE

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
Water Quality										
6.7	6.8.1	There should be no access to the shore or working from land within the Marine Park. No marine anchors shall be used within the Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Complete
6.7	6.8.1	No hydraulic dredging within Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Completed
6.7	6.8.1	Dredging for pipeline trench should be timed to coincide with maintenance dredging for Sha Chau AFRF marine access channel if relevant.	Sha Chau ARFR Marine access channel	Airport Authority	TMEIA		Y		N/A	Completed
6.4		The work rate for dredging should not exceed 4,000 m^3/hr for the TSHD and 7,000 m^3/day for the grab dredger.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Completed
6.7	6.8.1	Standard good dredging practice measures shall be written in the dredging contract.	Marine Park / Pipeline Dredging	Franchisee	TMEIA		Y		N/A	Completed
6.7	6.8.1	Use of Lean Material Overboard (LMOB) systems shall be prohibited. No mud overflow is to be permitted for dredging using TSHD.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Not applicable
6.7	6.8.1	Mechanical grabs shall be designed and maintained to avoid spillage and should seal tightly while being lifted.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed
6.7	6.8.1	Barges and hopper dredgers shall have tight fittings seals to their bottom openings to prevent leakage of material.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	6.8.1	Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Not applicable
6.7	6.8.1	Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed
6.7	6.8.1	Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed
6.7	6.8.1	Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed
6.7	6.8.1	All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed
6.7	6.8.1	The works shall not cause foam, oil, grease, letter or other objectionable matter to be present in the water within and adjacent to the works site.	Dredged areas/ Pipeline Dredging	Contractor	TMEIA Marine Fill Committee Guidelines. DASO permit conditions		Y		N/A	Completed

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	6.8.1	Placement of pipeline trench backfill should be undertaken in a controlled manner to minimise impacts. Backfilling with rock should be undertaken either down pipe or by a reverse grab operation or other controlled technique to ensure that this material does not mound on the seabed	Pipeline trench/ Pipeline Dredging	Contractor	TMEIA Minimise disturbance		Y		N/A	Ongoing
6.7	6.8.1	Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Storm drainage should be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	6.8.1	Temporary access roads should be surfaced with crushed stone or gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Open stockpiles of construction materials (e.g. aggregates and sand) onsite should be covered with tarpaulin or similar fabric during rainstorms.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	6.8.1	All vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	The section of construction road between the wheel washing bay and the public road should be surfaced with crushed stone or coarse gravel.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	The contractors shall prepare oil/chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	6.8.1	Waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	All fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Wastewater from pipe commissioning dewatering exercises shall be stored on site and for chemical analysis and safe disposal in accordance with the WPCO.	Tank Farm/Tank farm commissioning	Franchisee	TMEIA WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	Section 6	All construction works shall be subject to routine audit to ensure implementation of all EIA recommendations and good working practice.	Land site/ Throughout construction period	Contractor	EM&A Manual		Y		N/A	Ongoing
6.7	Section 6	Submarine section of aviation fuel pipeline shall be covered with rock armour protection which shall not protrude above the level of the adjacent natural seabed.	Submarine pipeline	Franchisee	TMEIA Rock armour to minimum thickness of 1m	Y	Y		Franchisee	Ongoing
6.7	Section 6	Detailed emergency response procedures shall be drawn up. These will include requirements to maintain floating oil booms, absorbent materials and skimmers on site at all times.	All facilities	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum			Y	Franchisee	Completed

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	Section 6	Coupling points on the jetty will be protected with slop collection utilities.	Jetty	Franchisee	TMEIA Rock armour to minimum thickness of 1m		Y		Franchisee	On going
6.7	Section 6	Auxiliary tanks shall be permanently maintained at the tank farm for recovered fuel and slops.	Tank farm	Franchisee	TMEIA			Y	Franchisee	Completed
6.7	Section 6	Oily drainage systems and slop collection systems will connect to an oil/water separator.	Tank farm	Franchisee	TMEIA Industry Standards e.g. Oil Companies International Marine Forum		Y		Franchisee	Ongoing
6.7	Section 6	All tanks shall be bunded to a capacity of at least 150% of the largest individual tank in each compound by 2040. Tank pits shall be protected by an impermeable bed (e.g. geotextile sheeting) to prevent seepage of aviation fuel to ground. A leak detection system shall be installed beneath the containment membrane.	Tank farm	Franchisee	TMEIA Hong Kong Code of Practice for Oil Installations, 1992		Y		Franchisee	Completed for Phase 1a[1] Ongoing for Phase 1b
6.7	Section 6	There shall be no direct outlet from the bund. A collection pump shall be included in the base. Removal of accumulated rainwater shall be activated manually and discharged to storm drain via an oil/water separator.	Tank farm	Franchisee	TMEIA		Y		Franchisee	TBC

[1] Contractor has installed leak detecting telltale pipes underneath the tanks rather than a "system" and not installed underneath the impermeable bed around the tanks.

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.7	Section 6	Contingency procedures shall be drawn up to ensure containment and safe disposal of any fuel lost from tanks or pipework. Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spillages.	Tank farm	Franchisee	TMEIA Hong Kong Code of Practice for Oil Installations, 1992			Y	Franchisee	Ongoing[1]
6.7	Section 6	Valves shall be installed within the storm drainage system to facilitate the retention of spillages.	Tank farm	Franchisee	TMEIA		Y		Franchisee	Complete for Phase 1a. Ongoing for Phase 1b
6.10	Section 6	Water quality monitoring shall be undertaken for suspended solids, turbidity, and dissolved oxygen.	Design monitoring stations as defined in EM&A Manual, section 6. Construction period when dredging takes place within 1000m of Marine Park and along entire length of the pipeline	Contractor	EM&A Manual		Y		N/A	Completed

[1] Non-sand/non-earth absorbent materials are kept on site as per paragraph 11 of the Code of Practice for Oil Storage Installations.

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
6.10	Section 6	Routine water quality monitoring in the vicinity of the PAFF site to check the effectiveness of the proposed precautionary measures implemented for on-site spill control. The details of the monitoring to be undertaken will be prepared by the Franchisee as part of the PAFF Operations Manual and the details will be agreed with the relevant authorities prior to the commencement of operation of the PAFF. Monitoring should include but not be limited to the parameters of TPH and PAH and reference should be made to the existing monitoring programme undertaken for the fuel tank farm on the HKIA platform.	Operational phase. Location and frequency to be determined and agreed with relevant authorities	Franchisee	EM&A Manual			Y	N/A	Operating Manuals completed[1]
Ecology										
7.8	5.3	Undertake post construction dolphin abundance monitoring.	Construction	Contractor	TMEIA		Y		N/A	In planning
7.8	5.3	A 500m dolphin exclusion zone shall be implemented and dredging shall not begin until the observer has confirmed that the area has been clear for 30 minutes.	250m around dredger/throughout dredging in Marine Park and along the length of pipeline	Contractor	TMEIA		Y		N/A	Completed
7.8	5.3	Avoidance of dolphin main calving season between March and August.	Throughout dredging in Marine Park and along the length of the pipeline	Contractor	TMEIA		Y		N/A	Completed
Landscape & Visual										

[1] Operating Manuals includes routines for monitoring the oil/water interceptors only as per Waste Water Licence. There are no bore hole test points on/off site to monitor the effectiveness of the measures, referring to the practise at the HKIA tank farm.

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
8.10	7.2.1	The construction programme for the PAFF should be reduced to the shortest possible period.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	The extent and periphery of the works areas should be managed so that they are as small as possible and do not appear cluttered, untidy and unattractive, particularly to road traffic along Lung Mun Road.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	Temporary hoarding barriers should be of a recessive visual appearance in both colour and form.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Materials should be stored in areas with the least obstruction to residents, pedestrians and traffic.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	All material stockpiles should be covered with an impermeable material and sandbagging diversions should be placed around exposed soil.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	Conservation of existing and imported soil resources.	PAFF site / throughout construction period of fuel tank expansion	Contractor	TMEIA			Y	N/A	Ongoing
8.10	7.2.1	A landscape perimeter bund comprising containment bund-wall, access road and planting buffer shall be built and maintained around the tank farm.	PAFF site / throughout construction period	Project Proponent	TMEIA	Y	Y	Y	Franchisee	Ongoing
8.10	7.2.1	The design of the PAFF should incorporate materials, details and textures which are visually recessive.	PAFF site / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
8.10	7.2.1	Colours should be of low chromatic intensity to reduce the potential contrast between the structure and their background.	PAFF site tanks / design	Project Proponent	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Visually recessive security fencing should be used around the perimeter.	Site perimeter	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Minimum amount of lighting for the tanks shall be used, only applied for safety at the key access points and staircases.	Tanks / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Limited lighting intensity on the site.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing
8.10	7.2.1	Directional down lighting is suggested to minimise light spill to the surrounding area.	PAFF site / Operational phase	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing

Cultural Heritage

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
9.8.1	9.2.1	Undertake a watching brief during dredging of the pipeline within 25m either side of anomalies SS1 and SS2. This should comprise: • Dredge operators to be made aware of the potential presence of cultural heritage material. The operators would be required to report to the AMO any unusual resistance and/or recovery of timbers, anchors or other wreck related material. Any obstacles encountered during the dredging that are of timber should be reported to the marine archaeologist. The obstacle should be avoided and not removed until it has been assessed by the marine archaeologist as to whether the obstacle is of cultural heritage importance; • A marine archaeologist shall be on board the dredging barge during dredging within 25m either side of SS1 and SS2 in the event of any unusual resistance occurring or blockages which requires the dredge head to be bought on deck for cleaning and examination; and, • Dredging to cease in the nominated area SS1 after 3 meters of sediment removal and after 1 metre for SS2. A dive survey will then be undertaken to examine the trench for possible cultural remains.	Within vicinity of SS1 and SS2	Franchisee	TMEIA		Y		N/A	Completed

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
9.8.2	9.2.1	During the course of the watching brief, if the targets are identified as being potentially archaeologically important, then an immediate marine archaeological impact assessment in accordance with EIAO TM Annex 19 will be required to be undertaken by a qualified marine archaeologist.	With vicinity of SS1 and SS2	Franchisee	TMEIA		Y		N/A	Not applicable
9.8.4	9.2.1	Any changes, additions or alterations to the dredging method and alignment should be further assessed by marine archaeologist to determine if any further assessment is required.	Pipeline alignment	Franchisee	TMEIA		Y		N/A	Not applicable
Fuel Spill Risk										
11.4.1	10.2	Tank farms will be constructed in a bunded area surrounding the tanks which will have collection capacity of 150% of the maximum content of the largest tank.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Completed
11.4.1	10.2	Emergency shut down valves shall be installed within the wider site storm drainage system.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Completed
11.4.1	10.2	An impermeable membrane shall be installed in the tank foundation beneath the tank bottom.	Tank farm / Design Phase	Franchisee	TMEIA	Y			N/A	Completed
11.4.1	10.2	Pipeline to be covered with a protective rock armour layer.	Pipelines/ Design Phase	Franchisee	TMEIA	Y			Franchisee	Completed
11.4.1	10.2	An integrated leak detection system shall be installed to all pipelines to provide early detection of any leak.	Pipelines/ Design Phase	Franchisee	TMEIA	Y			N/A	Completed
11.4.1	10.2	An automatic shut-off system shall be implemented for pipelines.	Pipelines/ Design Phase	Franchisee	TMEIA	Y			N/A	Completed
11.4.1	10.2	A workboat shall be on standby at the jetty during tanker berthing.	Jetty/ During Tanker Berth	Franchisee	TMEIA	Y		Y	N/A	Ongoing
11.4.1	10.2	Skimmers shall be available for quick deployment in case of a spill.	Jetty/ During Tanker Berth	Franchisee	TMEIA	Y		Y	N/A	Completed

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
11.4.1	10.2	An emergency response plan shall be prepared prior to the operation of the PAFF.	Jetty/ During Tanker Berth	Franchisee	TMEIA	Y		Y	N/A	Completed
11.4.1	10.2	Operator-training programme shall be implemented.	Jetty/ During Tanker Berth	Franchisee	TMEIA	Y		Y	N/A	Ongoing
11.6	10.4	During the planning of the later phase of the tank farm development, in order to ensure that the required mitigation measures are undertaken at that time, review the EIA report only if the latest technology, industrial standards and statutory requirements have changed by that time.	During planning stage for future tank construction	Franchisee	TMEIA			Y	N/A	Pending
11.6	10.4	Regular inspections and audits will be undertaken by the Franchisee during the operational phase of the facility: • Two inspections every year of the tank farm, jetty and pipelines including one undertaken pursuant to the Joint Inspection Group (JIG) explained above; • Inspection of the whole sub sea pipelines every 5 to 10 years; • Health, Safety and Environmental audit of the facility once every 3 years; and, • Inspection of the structural integrity of the tanks once per year.	Operation	Franchisee	TMEIA			Y	N/A	Pre opening JIG and Shell inspections completed. Remainder will start on 1/4/10 with commencement of operations, except procedures of 'Inspection of the structural integrity of the tanks once per year', which needs to be defined for further process

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
11.6	10.4	Prepare an Environmental Management Plan to ensure the on-going adequacy of the fuel spill contingency plan and that it is being implemented as required and that the above mitigation measures have been incorporated and are effective.	Prior to the start of operation of the PAFF with audits every 12 months	Franchisee	TMEIA			Y	N/A	Ongoing
Land Contamination										
13.5.1	10.2	Bunding shall be provided by all fuel storage areas to at least 150% of largest individual tank in each compound.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Completed
13.5.1	10.2	Relevant design standards for storage tanks, pipework, containment and drainage shall be adhered to.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Completed
13.5.1	10.2	Plant inspections and maintenance shall be undertaken once per month.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Ongoing
13.5.1	10.2	Impermeable lining shall be provided for all tank pits.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Completed
13.5.1	10.2	Leak detection systems shall be provided to all valves.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Completed
13.5.1	10.2	Surface drainage shall be contained and treated prior to discharge.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Completed
13.5.1	10.2	Emergency spill response plans shall be prepared.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Completed
13.5.1	10.2	Spill control materials and equipment shall be provided on site.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Completed
13.5.1	10.2	Runoff from the rood of site buildings and landscaped areas shall be conveyed in closed drains to the nearest storm water drain to prevent the generation of excessive quantities of surface water which may be polluted.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Completed
13.5.5	10.2	Suitable absorbent materials (e.g. sand or earth) shall be kept on site to deal with spills. Chemical dispersants shall not be employed.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
13.5.5	10.2	The facility shall be designed, constructed, operated and maintained in full accordance with the Code of Practice for Oil Installations, 1992.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Ongoing
13.5.5	10.2	Tank pressure testing shall be carried out routinely to check for possible tank leaks. Product inventory monitoring shall be integrated into site management procedures to check for any abnormal or unexpected product loss.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Ongoing[1]
13.5.5	10.2	Tank overfill monitoring systems shall be installed and regularly tested. Inlet valves shall be designed to automatically shutdown on exceedance of "high-high level" to prevent over-filling.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Completed for Phase 1a. Ongoing for Phase 1b.
13.5.5	10.2	Pipe leakages shall be routinely checked for by means of a pressure sensitive leak detection system and routine inventory control.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Ongoing
13.5.5	10.2	Drainage from areas of hardstanding shall be treated by means of oil/water separators prior to discharge to storm drain. All surface drainage shall be fitted with closure valves to provide additional containment and facilitate clean up of any leaks.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Complete for Phase 1a. Ongoing for Phase 1b
13.5.5	10.2	The delivery pipeline from the jetty and the supply line to the airport shall be fitted with pressure sensitive leak detectors.	Tank farm / Design	Franchisee	TMEIA	Y	Y		N/A	Ongoing
Waste Management										
14.7.2	8.3.1	The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		N/A	Ongoing

[1] Product inventory monitoring is ongoing but tank pressure testing needs to be defined for further process.

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	The waste coordinator shall prepare and implement a Waste Management Plan which specifies procedures such as ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of waste does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposal.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		N/A	Ongoing
14.7.2	8.3.1	The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		N/A	Ongoing
14.7.2	8.3.1	No waste shall be burnt on site.	PAFF Site throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Excavated material shall be used on site for purposes of landscaping or formation of bund walls as far as possible.	All site / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	All material shall be reused on site as far as practicable, including formwork plywood, topsoil and excavated material.	All site / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Suitable provisions shall be included in the construction contract to ensure that the Contractor sorts and recycles waste.	Contract preparation stage	HyD	TMEIA	Y			N/A	Ongoing
14.7.2	8.3.1	Re-use and recycling of waste must always be considered first. Waste disposal shall only be undertaken in the last resort. Any surplus material generated shall be sorted on site into construction and demolition (C&D) waste and the public fill fraction. A sorting facility shall be set up on the site.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The site and surroundings shall be kept tidy and litter free.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The C&D waste shall be disposed of at a licensed landfill or deposited at an authorised waste transfer facility and the material suitable for public fill delivered to a public filling area, public filling barging point or public fill stockpile area after obtaining the appropriate licence.	CEDD pubic fill stockpile in Mui Wo, North Lantau or Mui Wo refuse transfer stations / Throughout construction	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Stockpile material shall avoid vegetated areas.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	Stockpiles shall be covered by tarpaulin and/or watered as required.	All areas / throughout construction period, particularly during dry season	Contractor	TMEIA, Public Health and Municipal Services Ordinance (Cap 132) and the Public Cleansing and Prevention of Nuisances (Regional Council) By-laws		Y		N/A	Ongoing
14.7.2	8.3.1	Storage of material on site should be kept to a minimum.	All areas / throughout construction period	Contractor	TMEIA, Public Cleansing and Prevention of Nuisances (Regional Council) By-laws		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	Excavated material in trucks shall be covered by tarpaulins.	All areas, particularly at site exits / throughout construction period	Contractor	TMEIA, Reduce the potential for spillage and dust. Public Health and Municipal Services Ordinance (Cap 132) and the Public Cleansing and Prevention of Nuisances (Regional Council) By-laws		Y		N/A	Ongoing
14.7.2	8.3.1	Wheel washing facilities shall be used by all trucks leaving the site to prevent the transfer of mud onto public roads.	Site entrances and exits/ throughout construction period	Contractor	TMEIA, Public Cleansing and Prevention of Nuisances (Regional Council) By-laws		Y		N/A	Ongoing
14.7.2	8.3.1	Suitable chemical waste storage areas should be formed at the works site for temporary storage pending collection.	Works site/ throughout construction period	Contractor	TMEIA, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. A Guide to the Chemical Waste Control Scheme		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	A licensed contractor shall be employed to collect chemical waste for delivery to a licensed treatment facility.	Chemical waste treatment facility at Tsing Yi / throughout construction period	Contractor	TMEIA, Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. A Guide to the Chemical Waste Control Scheme		Y		N/A	Ongoing
14.7.2	8.3.1	Temporary storage areas for general refuse should be enclosed to avoid environmental impacts.	All areas/ throughout construction period	Contractor	TMEIA, Public Health and Municipal Services Ordinance		Y		N/A	Ongoing
14.7.2	8.3.1	Sufficient dustbins should be provided for storage of waste.	All areas/ throughout construction period	Contractor	TMEIA, Public Cleansing and Prevention of Nuisances Ordinance (Regional Council) By-laws, Public Health and Municipal Services Ordinance		Y		N/A	Ongoing
14.7.2	8.3.1	General refuse should be cleared daily and should be disposed of to the nearest licensed facility.	All areas, WENT landfill or NWNT refuse transfer stations/ throughout construction period	Contractor	TMEIA, Sanitation and Conservancy (Regional Council) By-laws		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	Waste oils, chemicals or solvents shall not be disposed of to drain.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Good site practice shall be implemented to avoid waste generation and promote waste minimisation.	PAFF site/ throughout construction period	Contractor	TMEIA		Y			Ongoing
14.7.2	8.3.1	Waste materials such as paper, metal, timber and waste oil shall be recycled as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Temporary structures used during construction shall be provided in the form of proprietary Protakabin type units sited on areas of permanent hard paving units as far as practicable.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Dredged marine mud shall be disposed of in a gazetted marine disposal ground under the requirements of the Dumping at Sea Ordinance.	PAFF site/ throughout construction period				Y		N/A	Completed
14.7.2	8.3.1	All waste containers shall be in good condition and fitted with lids or covers to prevent waste from escaping or the ingress of water.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in a secure area on hardstanding.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Emergency equipment to deal with any spillage or fire shall be kept on site.	PAFF site/ throughout construction period		TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All containers used for storage of chemical waste shall be maintained in good condition and clearly labelled in both English and Chinese.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule D	C	O	Maintenance Agency	Implementation Status
14.7.2	8.3.1	All storage areas for chemical waste shall be: • Clearly labelled; • Enclosed on at least 3 sides; • Have impermeable floor and bunding sufficient to fully retain any spillage or leakages; • Ventilated; and, • Covered to prevent rainfall from entering.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All types of asbestos including sources (such as clutch linings) shall be treated as chemical waste. Asbestos containing wastes shall be kept separate from other wastes.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All leaking containers shall be contained and removed from site an soon as is reasonably practicable.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Training shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2 Section 5	8.3.1	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

Annex F

QA/QC Results for Laboratory Testing of Suspended Solids

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 5**		
Contact	: **MS KAREN LUI**	*Contact*	: **Chan Kwok Fai, Godfrey**	*Work Order*	: **HK0925261**		
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Project	: **TUEN MUN**	*Quote number*	: **HK/1426c/2009****	*Date received*	: **01-DEC-2009**		
Order number	: **----**			*Date of issue*	: **04-DEC-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* :	**78**	
Site	: **----**				- *Analysed* :	**78**	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925261 supersedes any previous reports with this reference. The completion date of analysis is 03-DEC-2009. 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 HK0925261 : **Sample(s) were collected by ALS Technichem (HK) staff on 01 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[01-DEC-2009]	HK0925261-001		**14**				
MPB1 MID-EBB S DUP	[01-DEC-2009]	HK0925261-002		**12**				
MPB1 MID-EBB M	[01-DEC-2009]	HK0925261-003		**15**				
MPB1 MID-EBB M DUP	[01-DEC-2009]	HK0925261-004		**18**				
MPB1 MID-EBB B	[01-DEC-2009]	HK0925261-005		**16**				
MPB1 MID-EBB B DUP	[01-DEC-2009]	HK0925261-006		**16**				
MPB2 MID-EBB S	[01-DEC-2009]	HK0925261-007		**12**				
MPB2 MID-EBB S DUP	[01-DEC-2009]	HK0925261-008		**10**				
MPB2 MID-EBB M	[01-DEC-2009]	HK0925261-009		**13**				
MPB2 MID-EBB M DUP	[01-DEC-2009]	HK0925261-010		**10**				
MPB2 MID-EBB B	[01-DEC-2009]	HK0925261-011		**15**				
MPB2 MID-EBB B DUP	[01-DEC-2009]	HK0925261-012		**16**				
MP MID-EBB S	[01-DEC-2009]	HK0925261-013		**10**				
MP MID-EBB S DUP	[01-DEC-2009]	HK0925261-014		**11**				
MP MID-EBB M	[01-DEC-2009]	HK0925261-015		**10**				
MP MID-EBB M DUP	[01-DEC-2009]	HK0925261-016		**11**				
MP MID-EBB B	[01-DEC-2009]	HK0925261-017		**15**				
MP MID-EBB B DUP	[01-DEC-2009]	HK0925261-018		**13**				
IMO5 MID-EBB S	[01-DEC-2009]	HK0925261-043		**12**				
IMO5 MID-EBB S DUP	[01-DEC-2009]	HK0925261-044		**10**				
IMO5 MID-EBB M	[01-DEC-2009]	HK0925261-045		**12**				
IMO5 MID-EBB M DUP	[01-DEC-2009]	HK0925261-046		**11**				
IMO5 MID-EBB B	[01-DEC-2009]	HK0925261-047		**14**				
IMO5 MID-EBB B DUP	[01-DEC-2009]	HK0925261-048		**12**				
IMO6 MID-EBB S	[01-DEC-2009]	HK0925261-049		**18**				
IMO6 MID-EBB S DUP	[01-DEC-2009]	HK0925261-050		**18**				
IMO6 MID-EBB M	[01-DEC-2009]	HK0925261-051		**19**				
IMO6 MID-EBB M DUP	[01-DEC-2009]	HK0925261-052		**18**				
IMO6 MID-EBB B	[01-DEC-2009]	HK0925261-053		**12**				
IMO6 MID-EBB B DUP	[01-DEC-2009]	HK0925261-054		**15**				
C2 (NM5) MID-EBB S	[01-DEC-2009]	HK0925261-055		**19**				
C2 (NM5) MID-EBB S DUP	[01-DEC-2009]	HK0925261-056		**17**				
C2 (NM5) MID-EBB M	[01-DEC-2009]	HK0925261-057		**11**				
C2 (NM5) MID-EBB M DUP	[01-DEC-2009]	HK0925261-058		**11**				
C2 (NM5) MID-EBB B	[01-DEC-2009]	HK0925261-059		**14**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[01-DEC-2009]	HK0925261-060		**16**				
MPB1 MID-FLOOD S	[01-DEC-2009]	HK0925261-061		**13**				
MPB1 MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-062		**12**				
MPB1 MID-FLOOD M	[01-DEC-2009]	HK0925261-063		**12**				
MPB1 MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-064		**11**				
MPB1 MID-FLOOD B	[01-DEC-2009]	HK0925261-065		**11**				
MPB1 MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-066		**12**				
MPB2 MID-FLOOD S	[01-DEC-2009]	HK0925261-067		**10**				
MPB2 MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-068		**12**				
MPB2 MID-FLOOD M	[01-DEC-2009]	HK0925261-069		**12**				
MPB2 MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-070		**11**				
MPB2 MID-FLOOD B	[01-DEC-2009]	HK0925261-071		**13**				
MPB2 MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-072		**10**				
MP MID-FLOOD S	[01-DEC-2009]	HK0925261-073		**11**				
MP MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-074		**10**				
MP MID-FLOOD M	[01-DEC-2009]	HK0925261-075		**10**				
MP MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-076		**9**				
MP MID-FLOOD B	[01-DEC-2009]	HK0925261-077		**11**				
MP MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-078		**11**				
IMO5 MID-FLOOD S	[01-DEC-2009]	HK0925261-103		**17**				
IMO5 MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-104		**15**				
IMO5 MID-FLOOD M	[01-DEC-2009]	HK0925261-105		**16**				
IMO5 MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-106		**15**				
IMO5 MID-FLOOD B	[01-DEC-2009]	HK0925261-107		**14**				
IMO5 MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-108		**11**				
IMO6 MID-FLOOD S	[01-DEC-2009]	HK0925261-109		**12**				
IMO6 MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-110		**11**				
IMO6 MID-FLOOD M	[01-DEC-2009]	HK0925261-111		**16**				
IMO6 MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-112		**15**				
IMO6 MID-FLOOD B	[01-DEC-2009]	HK0925261-113		**18**				
IMO6 MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-114		**16**				
C1 (NM3) MID-FLOOD S	[01-DEC-2009]	HK0925261-115		**13**				
C1 (NM3) MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-116		**11**				
C1 (NM3) MID-FLOOD M	[01-DEC-2009]	HK0925261-117		**10**				
C1 (NM3) MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-118		**12**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[01-DEC-2009]	HK0925261-119		**14**				
C1 (NM3) MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-120		**13**				
C3 (NM6) MID-FLOOD S	[01-DEC-2009]	HK0925261-121		**17**				
C3 (NM6) MID-FLOOD S DUP	[01-DEC-2009]	HK0925261-122		**16**				
C3 (NM6) MID-FLOOD M	[01-DEC-2009]	HK0925261-123		**17**				
C3 (NM6) MID-FLOOD M DUP	[01-DEC-2009]	HK0925261-124		**14**				
C3 (NM6) MID-FLOOD B	[01-DEC-2009]	HK0925261-125		**16**				
C3 (NM6) MID-FLOOD B DUP	[01-DEC-2009]	HK0925261-126		**14**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1183188)								
HK0925261-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	14	12	11.3
HK0925261-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	15	15	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1183189)								
HK0925261-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	12	13	13.4
HK0925261-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	19	17	13.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1183190)								
HK0925261-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	11	11	0.0
HK0925261-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	10	11	11.9
EA/ED: Physical and Aggregate Properties (QC Lot: 1183192)								
HK0925261-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	12	12	0.0
HK0925261-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	14	16	11.4

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1183188)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1183189)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1183190)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1183192)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925289		
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E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 02-DEC-2009		
Order number	: ----			Date of issue	: 08-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925289 supersedes any previous reports with this reference. The completion date of analysis is 04-DEC-2009. 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 HK0925289 : **Sample(s) were collected by ALS Technichem (HK) staff on 02 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[02-DEC-2009]	HK0925289-001		**10**				
MPB1 MID-EBB S DUP	[02-DEC-2009]	HK0925289-002		**11**				
MPB1 MID-EBB M	[02-DEC-2009]	HK0925289-003		**9**				
MPB1 MID-EBB M DUP	[02-DEC-2009]	HK0925289-004		**9**				
MPB1 MID-EBB B	[02-DEC-2009]	HK0925289-005		**10**				
MPB1 MID-EBB B DUP	[02-DEC-2009]	HK0925289-006		**9**				
MPB2 MID-EBB S	[02-DEC-2009]	HK0925289-007		**10**				
MPB2 MID-EBB S DUP	[02-DEC-2009]	HK0925289-008		**9**				
MPB2 MID-EBB M	[02-DEC-2009]	HK0925289-009		**12**				
MPB2 MID-EBB M DUP	[02-DEC-2009]	HK0925289-010		**10**				
MPB2 MID-EBB B	[02-DEC-2009]	HK0925289-011		**11**				
MPB2 MID-EBB B DUP	[02-DEC-2009]	HK0925289-012		**12**				
MP MID-EBB S	[02-DEC-2009]	HK0925289-013		**16**				
MP MID-EBB S DUP	[02-DEC-2009]	HK0925289-014		**14**				
MP MID-EBB M	[02-DEC-2009]	HK0925289-015		**10**				
MP MID-EBB M DUP	[02-DEC-2009]	HK0925289-016		**11**				
MP MID-EBB B	[02-DEC-2009]	HK0925289-017		**10**				
MP MID-EBB B DUP	[02-DEC-2009]	HK0925289-018		**12**				
IMO5 MID-EBB S	[02-DEC-2009]	HK0925289-043		**8**				
IMO5 MID-EBB S DUP	[02-DEC-2009]	HK0925289-044		**9**				
IMO5 MID-EBB M	[02-DEC-2009]	HK0925289-045		**9**				
IMO5 MID-EBB M DUP	[02-DEC-2009]	HK0925289-046		**9**				
IMO5 MID-EBB B	[02-DEC-2009]	HK0925289-047		**17**				
IMO5 MID-EBB B DUP	[02-DEC-2009]	HK0925289-048		**17**				
IMO6 MID-EBB S	[02-DEC-2009]	HK0925289-049		**10**				
IMO6 MID-EBB S DUP	[02-DEC-2009]	HK0925289-050		**10**				
IMO6 MID-EBB M	[02-DEC-2009]	HK0925289-051		**9**				
IMO6 MID-EBB M DUP	[02-DEC-2009]	HK0925289-052		**9**				
IMO6 MID-EBB B	[02-DEC-2009]	HK0925289-053		**9**				
IMO6 MID-EBB B DUP	[02-DEC-2009]	HK0925289-054		**9**				
C2 (NM5) MID-EBB S	[02-DEC-2009]	HK0925289-055		**11**				
C2 (NM5) MID-EBB S DUP	[02-DEC-2009]	HK0925289-056		**12**				
C2 (NM5) MID-EBB M	[02-DEC-2009]	HK0925289-057		**10**				
C2 (NM5) MID-EBB M DUP	[02-DEC-2009]	HK0925289-058		**13**				
C2 (NM5) MID-EBB B	[02-DEC-2009]	HK0925289-059		**12**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[02-DEC-2009]	HK0925289-060		**10**				
MPB1 MID-FLOOD S	[02-DEC-2009]	HK0925289-061		**10**				
MPB1 MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-062		**11**				
MPB1 MID-FLOOD M	[02-DEC-2009]	HK0925289-063		**11**				
MPB1 MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-064		**9**				
MPB1 MID-FLOOD B	[02-DEC-2009]	HK0925289-065		**11**				
MPB1 MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-066		**12**				
MPB2 MID-FLOOD S	[02-DEC-2009]	HK0925289-067		**9**				
MPB2 MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-068		**10**				
MPB2 MID-FLOOD M	[02-DEC-2009]	HK0925289-069		**12**				
MPB2 MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-070		**14**				
MPB2 MID-FLOOD B	[02-DEC-2009]	HK0925289-071		**11**				
MPB2 MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-072		**12**				
MP MID-FLOOD S	[02-DEC-2009]	HK0925289-073		**12**				
MP MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-074		**12**				
MP MID-FLOOD M	[02-DEC-2009]	HK0925289-075		**10**				
MP MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-076		**10**				
MP MID-FLOOD B	[02-DEC-2009]	HK0925289-077		**10**				
MP MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-078		**10**				
IMO5 MID-FLOOD S	[02-DEC-2009]	HK0925289-103		**10**				
IMO5 MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-104		**10**				
IMO5 MID-FLOOD M	[02-DEC-2009]	HK0925289-105		**10**				
IMO5 MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-106		**8**				
IMO5 MID-FLOOD B	[02-DEC-2009]	HK0925289-107		**11**				
IMO5 MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-108		**9**				
IMO6 MID-FLOOD S	[02-DEC-2009]	HK0925289-109		**12**				
IMO6 MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-110		**10**				
IMO6 MID-FLOOD M	[02-DEC-2009]	HK0925289-111		**11**				
IMO6 MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-112		**11**				
IMO6 MID-FLOOD B	[02-DEC-2009]	HK0925289-113		**11**				
IMO6 MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-114		**10**				
C1 (NM3) MID-FLOOD S	[02-DEC-2009]	HK0925289-115		**15**				
C1 (NM3) MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-116		**13**				
C1 (NM3) MID-FLOOD M	[02-DEC-2009]	HK0925289-117		**17**				
C1 (NM3) MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-118		**16**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[02-DEC-2009]	HK0925289-119		**12**				
C1 (NM3) MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-120		**11**				
C3 (NM6) MID-FLOOD S	[02-DEC-2009]	HK0925289-121		**10**				
C3 (NM6) MID-FLOOD S DUP	[02-DEC-2009]	HK0925289-122		**11**				
C3 (NM6) MID-FLOOD M	[02-DEC-2009]	HK0925289-123		**10**				
C3 (NM6) MID-FLOOD M DUP	[02-DEC-2009]	HK0925289-124		**10**				
C3 (NM6) MID-FLOOD B	[02-DEC-2009]	HK0925289-125		**10**				
C3 (NM6) MID-FLOOD B DUP	[02-DEC-2009]	HK0925289-126		**10**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1184148)								
HK0925289-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	10	11	10.8
HK0925289-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	9.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1184149)								
HK0925289-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	9	9	0.0
HK0925289-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	8.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1184150)								
HK0925289-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	11	13	14.3
HK0925289-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	10	9	14.5
EA/ED: Physical and Aggregate Properties (QC Lot: 1184151)								
HK0925289-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	12	11	15.2
HK0925289-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	12	11	9.1

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1184148)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184149)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184150)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1184151)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925290		
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E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 03-DEC-2009		
Order number	: ----			Date of issue	: 08-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925290 supersedes any previous reports with this reference. The completion date of analysis is 06-DEC-2009. 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 HK0925290 : **Sample(s) were collected by ALS Technichem (HK) staff on 03 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[03-DEC-2009]	HK0925290-001		**78**				
MPB1 MID-EBB S DUP	[03-DEC-2009]	HK0925290-002		**74**				
MPB1 MID-EBB M	[03-DEC-2009]	HK0925290-003		**70**				
MPB1 MID-EBB M DUP	[03-DEC-2009]	HK0925290-004		**75**				
MPB1 MID-EBB B	[03-DEC-2009]	HK0925290-005		**70**				
MPB1 MID-EBB B DUP	[03-DEC-2009]	HK0925290-006		**72**				
MPB2 MID-EBB S	[03-DEC-2009]	HK0925290-007		**40**				
MPB2 MID-EBB S DUP	[03-DEC-2009]	HK0925290-008		**39**				
MPB2 MID-EBB M	[03-DEC-2009]	HK0925290-009		**48**				
MPB2 MID-EBB M DUP	[03-DEC-2009]	HK0925290-010		**41**				
MPB2 MID-EBB B	[03-DEC-2009]	HK0925290-011		**42**				
MPB2 MID-EBB B DUP	[03-DEC-2009]	HK0925290-012		**39**				
MP MID-EBB S	[03-DEC-2009]	HK0925290-013		**47**				
MP MID-EBB S DUP	[03-DEC-2009]	HK0925290-014		**44**				
MP MID-EBB M	[03-DEC-2009]	HK0925290-015		**44**				
MP MID-EBB M DUP	[03-DEC-2009]	HK0925290-016		**40**				
MP MID-EBB B	[03-DEC-2009]	HK0925290-017		**43**				
MP MID-EBB B DUP	[03-DEC-2009]	HK0925290-018		**41**				
IMO5 MID-EBB S	[03-DEC-2009]	HK0925290-043		**47**				
IMO5 MID-EBB S DUP	[03-DEC-2009]	HK0925290-044		**42**				
IMO5 MID-EBB M	[03-DEC-2009]	HK0925290-045		**44**				
IMO5 MID-EBB M DUP	[03-DEC-2009]	HK0925290-046		**41**				
IMO5 MID-EBB B	[03-DEC-2009]	HK0925290-047		**44**				
IMO5 MID-EBB B DUP	[03-DEC-2009]	HK0925290-048		**43**				
IMO6 MID-EBB S	[03-DEC-2009]	HK0925290-049		**37**				
IMO6 MID-EBB S DUP	[03-DEC-2009]	HK0925290-050		**41**				
IMO6 MID-EBB M	[03-DEC-2009]	HK0925290-051		**38**				
IMO6 MID-EBB M DUP	[03-DEC-2009]	HK0925290-052		**49**				
IMO6 MID-EBB B	[03-DEC-2009]	HK0925290-053		**40**				
IMO6 MID-EBB B DUP	[03-DEC-2009]	HK0925290-054		**44**				
C2 (NM5) MID-EBB S	[03-DEC-2009]	HK0925290-055		**39**				
C2 (NM5) MID-EBB S DUP	[03-DEC-2009]	HK0925290-056		**36**				
C2 (NM5) MID-EBB M	[03-DEC-2009]	HK0925290-057		**41**				
C2 (NM5) MID-EBB M DUP	[03-DEC-2009]	HK0925290-058		**38**				
C2 (NM5) MID-EBB B	[03-DEC-2009]	HK0925290-059		**42**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[03-DEC-2009]	HK0925290-060		**41**				
MPB1 MID-FLOOD S	[03-DEC-2009]	HK0925290-061		**72**				
MPB1 MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-062		**67**				
MPB1 MID-FLOOD M	[03-DEC-2009]	HK0925290-063		**73**				
MPB1 MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-064		**71**				
MPB1 MID-FLOOD B	[03-DEC-2009]	HK0925290-065		**54**				
MPB1 MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-066		**59**				
MPB2 MID-FLOOD S	[03-DEC-2009]	HK0925290-067		**44**				
MPB2 MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-068		**39**				
MPB2 MID-FLOOD M	[03-DEC-2009]	HK0925290-069		**40**				
MPB2 MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-070		**41**				
MPB2 MID-FLOOD B	[03-DEC-2009]	HK0925290-071		**43**				
MPB2 MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-072		**41**				
MP MID-FLOOD S	[03-DEC-2009]	HK0925290-073		**39**				
MP MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-074		**36**				
MP MID-FLOOD M	[03-DEC-2009]	HK0925290-075		**40**				
MP MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-076		**38**				
MP MID-FLOOD B	[03-DEC-2009]	HK0925290-077		**40**				
MP MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-078		**43**				
IMO5 MID-FLOOD S	[03-DEC-2009]	HK0925290-103		**40**				
IMO5 MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-104		**41**				
IMO5 MID-FLOOD M	[03-DEC-2009]	HK0925290-105		**39**				
IMO5 MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-106		**43**				
IMO5 MID-FLOOD B	[03-DEC-2009]	HK0925290-107		**37**				
IMO5 MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-108		**41**				
IMO6 MID-FLOOD S	[03-DEC-2009]	HK0925290-109		**29**				
IMO6 MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-110		**30**				
IMO6 MID-FLOOD M	[03-DEC-2009]	HK0925290-111		**34**				
IMO6 MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-112		**35**				
IMO6 MID-FLOOD B	[03-DEC-2009]	HK0925290-113		**39**				
IMO6 MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-114		**35**				
C1 (NM3) MID-FLOOD S	[03-DEC-2009]	HK0925290-115		**22**				
C1 (NM3) MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-116		**20**				
C1 (NM3) MID-FLOOD M	[03-DEC-2009]	HK0925290-117		**21**				
C1 (NM3) MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-118		**19**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[03-DEC-2009]	HK0925290-119		**20**				
C1 (NM3) MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-120		**20**				
C3 (NM6) MID-FLOOD S	[03-DEC-2009]	HK0925290-121		**25**				
C3 (NM6) MID-FLOOD S DUP	[03-DEC-2009]	HK0925290-122		**22**				
C3 (NM6) MID-FLOOD M	[03-DEC-2009]	HK0925290-123		**25**				
C3 (NM6) MID-FLOOD M DUP	[03-DEC-2009]	HK0925290-124		**22**				
C3 (NM6) MID-FLOOD B	[03-DEC-2009]	HK0925290-125		**24**				
C3 (NM6) MID-FLOOD B DUP	[03-DEC-2009]	HK0925290-126		**21**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1186025)								
HK0925290-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	78	80	2.8
HK0925290-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	42	42	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1186026)								
HK0925290-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	44	41	7.0
HK0925290-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	39	41	5.2
EA/ED: Physical and Aggregate Properties (QC Lot: 1186027)								
HK0925290-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	54	54	0.0
HK0925290-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	40	37	7.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1186028)								
HK0925290-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	29	30	4.0
HK0925290-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	20	19	8.8

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1186025)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186026)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	109	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186027)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186028)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925476		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 04-DEC-2009		
Order number	: ----			Date of issue	: 09-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925476 supersedes any previous reports with this reference. The completion date of analysis is 07-DEC-2009. 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 HK0925476 : **Sample(s) were collected by ALS Technichem (HK) staff on 04 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[04-DEC-2009]	HK0925476-001		**19**				
MPB1 MID-EBB S DUP	[04-DEC-2009]	HK0925476-002		**21**				
MPB1 MID-EBB M	[04-DEC-2009]	HK0925476-003		**16**				
MPB1 MID-EBB M DUP	[04-DEC-2009]	HK0925476-004		**16**				
MPB1 MID-EBB B	[04-DEC-2009]	HK0925476-005		**14**				
MPB1 MID-EBB B DUP	[04-DEC-2009]	HK0925476-006		**16**				
MPB2 MID-EBB S	[04-DEC-2009]	HK0925476-007		**19**				
MPB2 MID-EBB S DUP	[04-DEC-2009]	HK0925476-008		**16**				
MPB2 MID-EBB M	[04-DEC-2009]	HK0925476-009		**17**				
MPB2 MID-EBB M DUP	[04-DEC-2009]	HK0925476-010		**17**				
MPB2 MID-EBB B	[04-DEC-2009]	HK0925476-011		**17**				
MPB2 MID-EBB B DUP	[04-DEC-2009]	HK0925476-012		**20**				
MP MID-EBB S	[04-DEC-2009]	HK0925476-013		**17**				
MP MID-EBB S DUP	[04-DEC-2009]	HK0925476-014		**17**				
MP MID-EBB M	[04-DEC-2009]	HK0925476-015		**21**				
MP MID-EBB M DUP	[04-DEC-2009]	HK0925476-016		**20**				
MP MID-EBB B	[04-DEC-2009]	HK0925476-017		**22**				
MP MID-EBB B DUP	[04-DEC-2009]	HK0925476-018		**18**				
IMO5 MID-EBB S	[04-DEC-2009]	HK0925476-043		**18**				
IMO5 MID-EBB S DUP	[04-DEC-2009]	HK0925476-044		**15**				
IMO5 MID-EBB M	[04-DEC-2009]	HK0925476-045		**17**				
IMO5 MID-EBB M DUP	[04-DEC-2009]	HK0925476-046		**16**				
IMO5 MID-EBB B	[04-DEC-2009]	HK0925476-047		**17**				
IMO5 MID-EBB B DUP	[04-DEC-2009]	HK0925476-048		**16**				
IMO6 MID-EBB S	[04-DEC-2009]	HK0925476-049		**16**				
IMO6 MID-EBB S DUP	[04-DEC-2009]	HK0925476-050		**19**				
IMO6 MID-EBB M	[04-DEC-2009]	HK0925476-051		**17**				
IMO6 MID-EBB M DUP	[04-DEC-2009]	HK0925476-052		**17**				
IMO6 MID-EBB B	[04-DEC-2009]	HK0925476-053		**20**				
IMO6 MID-EBB B DUP	[04-DEC-2009]	HK0925476-054		**18**				
C2 (NM5) MID-EBB S	[04-DEC-2009]	HK0925476-055		**17**				
C2 (NM5) MID-EBB S DUP	[04-DEC-2009]	HK0925476-056		**18**				
C2 (NM5) MID-EBB M	[04-DEC-2009]	HK0925476-057		**18**				
C2 (NM5) MID-EBB M DUP	[04-DEC-2009]	HK0925476-058		**20**				
C2 (NM5) MID-EBB B	[04-DEC-2009]	HK0925476-059		**18**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[04-DEC-2009]	HK0925476-060		**19**				
MPB1 MID-FLOOD S	[04-DEC-2009]	HK0925476-061		**17**				
MPB1 MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-062		**20**				
MPB1 MID-FLOOD M	[04-DEC-2009]	HK0925476-063		**17**				
MPB1 MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-064		**18**				
MPB1 MID-FLOOD B	[04-DEC-2009]	HK0925476-065		**15**				
MPB1 MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-066		**15**				
MPB2 MID-FLOOD S	[04-DEC-2009]	HK0925476-067		**20**				
MPB2 MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-068		**18**				
MPB2 MID-FLOOD M	[04-DEC-2009]	HK0925476-069		**17**				
MPB2 MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-070		**20**				
MPB2 MID-FLOOD B	[04-DEC-2009]	HK0925476-071		**14**				
MPB2 MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-072		**16**				
MP MID-FLOOD S	[04-DEC-2009]	HK0925476-073		**15**				
MP MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-074		**16**				
MP MID-FLOOD M	[04-DEC-2009]	HK0925476-075		**15**				
MP MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-076		**18**				
MP MID-FLOOD B	[04-DEC-2009]	HK0925476-077		**16**				
MP MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-078		**17**				
IMO5 MID-FLOOD S	[04-DEC-2009]	HK0925476-103		**17**				
IMO5 MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-104		**18**				
IMO5 MID-FLOOD M	[04-DEC-2009]	HK0925476-105		**18**				
IMO5 MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-106		**18**				
IMO5 MID-FLOOD B	[04-DEC-2009]	HK0925476-107		**18**				
IMO5 MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-108		**19**				
IMO6 MID-FLOOD S	[04-DEC-2009]	HK0925476-109		**19**				
IMO6 MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-110		**17**				
IMO6 MID-FLOOD M	[04-DEC-2009]	HK0925476-111		**24**				
IMO6 MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-112		**22**				
IMO6 MID-FLOOD B	[04-DEC-2009]	HK0925476-113		**19**				
IMO6 MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-114		**16**				
C1 (NM3) MID-FLOOD S	[04-DEC-2009]	HK0925476-115		**18**				
C1 (NM3) MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-116		**16**				
C1 (NM3) MID-FLOOD M	[04-DEC-2009]	HK0925476-117		**22**				
C1 (NM3) MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-118		**19**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[04-DEC-2009]	HK0925476-119		**20**				
C1 (NM3) MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-120		**17**				
C3 (NM6) MID-FLOOD S	[04-DEC-2009]	HK0925476-121		**15**				
C3 (NM6) MID-FLOOD S DUP	[04-DEC-2009]	HK0925476-122		**18**				
C3 (NM6) MID-FLOOD M	[04-DEC-2009]	HK0925476-123		**18**				
C3 (NM6) MID-FLOOD M DUP	[04-DEC-2009]	HK0925476-124		**17**				
C3 (NM6) MID-FLOOD B	[04-DEC-2009]	HK0925476-125		**19**				
C3 (NM6) MID-FLOOD B DUP	[04-DEC-2009]	HK0925476-126		**16**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1186756)								
HK0925476-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	19	17	10.3
HK0925476-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	17	17	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1186757)								
HK0925476-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	17	20	12.2
HK0925476-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	17	16	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1186758)								
HK0925476-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	15	17	12.3
HK0925476-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	15	16	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1186759)								
HK0925476-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	19	20	7.7
HK0925476-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	20	18	12.6

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1186756)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186757)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	114	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186758)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1186759)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925578		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 05-DEC-2009		
Order number	: ----			Date of issue	: 09-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925578 supersedes any previous reports with this reference. The completion date of analysis is 08-DEC-2009. 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 HK0925578 : **Sample(s) were collected by ALS Technichem (HK) staff on 05 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[05-DEC-2009]	HK0925578-001		**17**				
MPB1 MID-EBB S DUP	[05-DEC-2009]	HK0925578-002		**20**				
MPB1 MID-EBB M	[05-DEC-2009]	HK0925578-003		**20**				
MPB1 MID-EBB M DUP	[05-DEC-2009]	HK0925578-004		**18**				
MPB1 MID-EBB B	[05-DEC-2009]	HK0925578-005		**19**				
MPB1 MID-EBB B DUP	[05-DEC-2009]	HK0925578-006		**17**				
MPB2 MID-EBB S	[05-DEC-2009]	HK0925578-007		**22**				
MPB2 MID-EBB S DUP	[05-DEC-2009]	HK0925578-008		**20**				
MPB2 MID-EBB M	[05-DEC-2009]	HK0925578-009		**21**				
MPB2 MID-EBB M DUP	[05-DEC-2009]	HK0925578-010		**18**				
MPB2 MID-EBB B	[05-DEC-2009]	HK0925578-011		**23**				
MPB2 MID-EBB B DUP	[05-DEC-2009]	HK0925578-012		**22**				
MP MID-EBB S	[05-DEC-2009]	HK0925578-013		**26**				
MP MID-EBB S DUP	[05-DEC-2009]	HK0925578-014		**25**				
MP MID-EBB M	[05-DEC-2009]	HK0925578-015		**22**				
MP MID-EBB M DUP	[05-DEC-2009]	HK0925578-016		**24**				
MP MID-EBB B	[05-DEC-2009]	HK0925578-017		**25**				
MP MID-EBB B DUP	[05-DEC-2009]	HK0925578-018		**24**				
IMO5 MID-EBB S	[05-DEC-2009]	HK0925578-043		**45**				
IMO5 MID-EBB S DUP	[05-DEC-2009]	HK0925578-044		**40**				
IMO5 MID-EBB M	[05-DEC-2009]	HK0925578-045		**44**				
IMO5 MID-EBB M DUP	[05-DEC-2009]	HK0925578-046		**50**				
IMO5 MID-EBB B	[05-DEC-2009]	HK0925578-047		**52**				
IMO5 MID-EBB B DUP	[05-DEC-2009]	HK0925578-048		**56**				
IMO6 MID-EBB S	[05-DEC-2009]	HK0925578-049		**40**				
IMO6 MID-EBB S DUP	[05-DEC-2009]	HK0925578-050		**37**				
IMO6 MID-EBB M	[05-DEC-2009]	HK0925578-051		**32**				
IMO6 MID-EBB M DUP	[05-DEC-2009]	HK0925578-052		**28**				
IMO6 MID-EBB B	[05-DEC-2009]	HK0925578-053		**32**				
IMO6 MID-EBB B DUP	[05-DEC-2009]	HK0925578-054		**33**				
C2 (NM5) MID-EBB S	[05-DEC-2009]	HK0925578-055		**39**				
C2 (NM5) MID-EBB S DUP	[05-DEC-2009]	HK0925578-056		**44**				
C2 (NM5) MID-EBB M	[05-DEC-2009]	HK0925578-057		**39**				
C2 (NM5) MID-EBB M DUP	[05-DEC-2009]	HK0925578-058		**45**				
C2 (NM5) MID-EBB B	[05-DEC-2009]	HK0925578-059		**50**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[05-DEC-2009]	HK0925578-060		**58**				
MPB1 MID-FLOOD S	[05-DEC-2009]	HK0925578-061		**21**				
MPB1 MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-062		**19**				
MPB1 MID-FLOOD M	[05-DEC-2009]	HK0925578-063		**25**				
MPB1 MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-064		**23**				
MPB1 MID-FLOOD B	[05-DEC-2009]	HK0925578-065		**22**				
MPB1 MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-066		**26**				
MPB2 MID-FLOOD S	[05-DEC-2009]	HK0925578-067		**24**				
MPB2 MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-068		**23**				
MPB2 MID-FLOOD M	[05-DEC-2009]	HK0925578-069		**28**				
MPB2 MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-070		**23**				
MPB2 MID-FLOOD B	[05-DEC-2009]	HK0925578-071		**26**				
MPB2 MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-072		**30**				
MP MID-FLOOD S	[05-DEC-2009]	HK0925578-073		**28**				
MP MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-074		**25**				
MP MID-FLOOD M	[05-DEC-2009]	HK0925578-075		**29**				
MP MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-076		**29**				
MP MID-FLOOD B	[05-DEC-2009]	HK0925578-077		**38**				
MP MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-078		**35**				
IMO5 MID-FLOOD S	[05-DEC-2009]	HK0925578-103		**43**				
IMO5 MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-104		**42**				
IMO5 MID-FLOOD M	[05-DEC-2009]	HK0925578-105		**39**				
IMO5 MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-106		**43**				
IMO5 MID-FLOOD B	[05-DEC-2009]	HK0925578-107		**46**				
IMO5 MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-108		**44**				
IMO6 MID-FLOOD S	[05-DEC-2009]	HK0925578-109		**30**				
IMO6 MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-110		**30**				
IMO6 MID-FLOOD M	[05-DEC-2009]	HK0925578-111		**52**				
IMO6 MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-112		**49**				
IMO6 MID-FLOOD B	[05-DEC-2009]	HK0925578-113		**37**				
IMO6 MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-114		**34**				
C1 (NM3) MID-FLOOD S	[05-DEC-2009]	HK0925578-115		**36**				
C1 (NM3) MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-116		**32**				
C1 (NM3) MID-FLOOD M	[05-DEC-2009]	HK0925578-117		**35**				
C1 (NM3) MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-118		**28**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[05-DEC-2009]	HK0925578-119		**36**				
C1 (NM3) MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-120		**40**				
C3 (NM6) MID-FLOOD S	[05-DEC-2009]	HK0925578-121		**23**				
C3 (NM6) MID-FLOOD S DUP	[05-DEC-2009]	HK0925578-122		**26**				
C3 (NM6) MID-FLOOD M	[05-DEC-2009]	HK0925578-123		**20**				
C3 (NM6) MID-FLOOD M DUP	[05-DEC-2009]	HK0925578-124		**22**				
C3 (NM6) MID-FLOOD B	[05-DEC-2009]	HK0925578-125		**16**				
C3 (NM6) MID-FLOOD B DUP	[05-DEC-2009]	HK0925578-126		**19**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1188619)								
HK0925578-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	17	19	11.7
HK0925578-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	23	20	12.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1188620)								
HK0925578-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	44	47	5.6
HK0925578-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	39	40	3.1
EA/ED: Physical and Aggregate Properties (QC Lot: 1188621)								
HK0925578-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	22	24	8.9
HK0925578-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	29	25	12.3
EA/ED: Physical and Aggregate Properties (QC Lot: 1188622)								
HK0925578-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	30	26	14.9
HK0925578-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	36	38	4.9

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1188619)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188620)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188621)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188622)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925761		
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E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 07-DEC-2009		
Order number	: ----			Date of issue	: 11-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925761 supersedes any previous reports with this reference. The completion date of analysis is 10-DEC-2009. 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 HK0925761 : **Sample(s) were collected by ALS Technichem (HK) staff on 06 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[06-DEC-2009]	HK0925761-001		**20**				
MPB1 MID-EBB S DUP	[06-DEC-2009]	HK0925761-002		**18**				
MPB1 MID-EBB M	[06-DEC-2009]	HK0925761-003		**19**				
MPB1 MID-EBB M DUP	[06-DEC-2009]	HK0925761-004		**20**				
MPB1 MID-EBB B	[06-DEC-2009]	HK0925761-005		**24**				
MPB1 MID-EBB B DUP	[06-DEC-2009]	HK0925761-006		**26**				
MPB2 MID-EBB S	[06-DEC-2009]	HK0925761-007		**23**				
MPB2 MID-EBB S DUP	[06-DEC-2009]	HK0925761-008		**26**				
MPB2 MID-EBB M	[06-DEC-2009]	HK0925761-009		**26**				
MPB2 MID-EBB M DUP	[06-DEC-2009]	HK0925761-010		**21**				
MPB2 MID-EBB B	[06-DEC-2009]	HK0925761-011		**21**				
MPB2 MID-EBB B DUP	[06-DEC-2009]	HK0925761-012		**18**				
MP MID-EBB S	[06-DEC-2009]	HK0925761-013		**21**				
MP MID-EBB S DUP	[06-DEC-2009]	HK0925761-014		**20**				
MP MID-EBB M	[06-DEC-2009]	HK0925761-015		**24**				
MP MID-EBB M DUP	[06-DEC-2009]	HK0925761-016		**20**				
MP MID-EBB B	[06-DEC-2009]	HK0925761-017		**26**				
MP MID-EBB B DUP	[06-DEC-2009]	HK0925761-018		**22**				
IMO5 MID-EBB S	[06-DEC-2009]	HK0925761-043		**22**				
IMO5 MID-EBB S DUP	[06-DEC-2009]	HK0925761-044		**19**				
IMO5 MID-EBB M	[06-DEC-2009]	HK0925761-045		**16**				
IMO5 MID-EBB M DUP	[06-DEC-2009]	HK0925761-046		**17**				
IMO5 MID-EBB B	[06-DEC-2009]	HK0925761-047		**16**				
IMO5 MID-EBB B DUP	[06-DEC-2009]	HK0925761-048		**17**				
IMO6 MID-EBB S	[06-DEC-2009]	HK0925761-049		**21**				
IMO6 MID-EBB S DUP	[06-DEC-2009]	HK0925761-050		**19**				
IMO6 MID-EBB M	[06-DEC-2009]	HK0925761-051		**18**				
IMO6 MID-EBB M DUP	[06-DEC-2009]	HK0925761-052		**21**				
IMO6 MID-EBB B	[06-DEC-2009]	HK0925761-053		**20**				
IMO6 MID-EBB B DUP	[06-DEC-2009]	HK0925761-054		**22**				
C2 (NM5) MID-EBB S	[06-DEC-2009]	HK0925761-055		**19**				
C2 (NM5) MID-EBB S DUP	[06-DEC-2009]	HK0925761-056		**17**				
C2 (NM5) MID-EBB M	[06-DEC-2009]	HK0925761-057		**17**				
C2 (NM5) MID-EBB M DUP	[06-DEC-2009]	HK0925761-058		**18**				
C2 (NM5) MID-EBB B	[06-DEC-2009]	HK0925761-059		**20**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[06-DEC-2009]	HK0925761-060		**16**				
MPB1 MID-FLOOD S	[06-DEC-2009]	HK0925761-061		**17**				
MPB1 MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-062		**17**				
MPB1 MID-FLOOD M	[06-DEC-2009]	HK0925761-063		**20**				
MPB1 MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-064		**19**				
MPB1 MID-FLOOD B	[06-DEC-2009]	HK0925761-065		**23**				
MPB1 MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-066		**20**				
MPB2 MID-FLOOD S	[06-DEC-2009]	HK0925761-067		**19**				
MPB2 MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-068		**20**				
MPB2 MID-FLOOD M	[06-DEC-2009]	HK0925761-069		**19**				
MPB2 MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-070		**20**				
MPB2 MID-FLOOD B	[06-DEC-2009]	HK0925761-071		**18**				
MPB2 MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-072		**18**				
MP MID-FLOOD S	[06-DEC-2009]	HK0925761-073		**14**				
MP MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-074		**16**				
MP MID-FLOOD M	[06-DEC-2009]	HK0925761-075		**13**				
MP MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-076		**16**				
MP MID-FLOOD B	[06-DEC-2009]	HK0925761-077		**15**				
MP MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-078		**13**				
IMO5 MID-FLOOD S	[06-DEC-2009]	HK0925761-103		**19**				
IMO5 MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-104		**19**				
IMO5 MID-FLOOD M	[06-DEC-2009]	HK0925761-105		**18**				
IMO5 MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-106		**17**				
IMO5 MID-FLOOD B	[06-DEC-2009]	HK0925761-107		**19**				
IMO5 MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-108		**18**				
IMO6 MID-FLOOD S	[06-DEC-2009]	HK0925761-109		**17**				
IMO6 MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-110		**18**				
IMO6 MID-FLOOD M	[06-DEC-2009]	HK0925761-111		**19**				
IMO6 MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-112		**19**				
IMO6 MID-FLOOD B	[06-DEC-2009]	HK0925761-113		**16**				
IMO6 MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-114		**16**				
C1 (NM3) MID-FLOOD S	[06-DEC-2009]	HK0925761-115		**20**				
C1 (NM3) MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-116		**23**				
C1 (NM3) MID-FLOOD M	[06-DEC-2009]	HK0925761-117		**23**				
C1 (NM3) MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-118		**20**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[06-DEC-2009]	HK0925761-119		**20**				
C1 (NM3) MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-120		**21**				
C3 (NM6) MID-FLOOD S	[06-DEC-2009]	HK0925761-121		**20**				
C3 (NM6) MID-FLOOD S DUP	[06-DEC-2009]	HK0925761-122		**21**				
C3 (NM6) MID-FLOOD M	[06-DEC-2009]	HK0925761-123		**18**				
C3 (NM6) MID-FLOOD M DUP	[06-DEC-2009]	HK0925761-124		**19**				
C3 (NM6) MID-FLOOD B	[06-DEC-2009]	HK0925761-125		**19**				
C3 (NM6) MID-FLOOD B DUP	[06-DEC-2009]	HK0925761-126		**19**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1188624)								
HK0925761-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	20	18	12.2
HK0925761-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	21	22	5.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1188625)								
HK0925761-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	16	16	0.0
HK0925761-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	19	18	5.7
EA/ED: Physical and Aggregate Properties (QC Lot: 1188626)								
HK0925761-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	23	26	13.3
HK0925761-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	13	15	12.7
EA/ED: Physical and Aggregate Properties (QC Lot: 1188627)								
HK0925761-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	17	17	0.0
HK0925761-120	C1 (NM3) MID-FLOOD B DUP	EA025: Suspended Solids (SS)	----	2	mg/L	21	18	14.3

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1188624)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188625)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188626)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188627)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	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.**

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	*Laboratory*	: **ALS Technichem HK Pty Ltd**	*Page*	: **1 of 5**		
Contact	: **MS FRANCESCA ZINO**	*Contact*	: **Chan Kwok Fai, Godfrey**	*Work Order*	: **HK0925762**		
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	*Address*	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**				
E-mail	: **francesca.zino@erm.com**	*E-mail*	: **Godfrey.Chan@alsenviro.com**				
Telephone	: **+852 2271 3000**	*Telephone*	: **+852 2610 1044**				
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Project	: **TUEN MUN**	*Quote number*	: **HK/1426c/2009****	*Date received*	: **07-DEC-2009**		
Order number	: **----**			*Date of issue*	: **12-DEC-2009**		
C-O-C number	: **----**			*No. of samples*	- *Received* :	**78**	
Site	: **----**				- *Analysed* :	**78**	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925762 supersedes any previous reports with this reference. The completion date of analysis is 10-DEC-2009. 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 HK0925762 : **Sample(s) were collected by ALS Technichem (HK) staff on 07 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	*Position*	*Authorised results for:-*
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[07-DEC-2009]	HK0925762-001		**13**				
MPB1 MID-EBB S DUP	[07-DEC-2009]	HK0925762-002		**10**				
MPB1 MID-EBB M	[07-DEC-2009]	HK0925762-003		**12**				
MPB1 MID-EBB M DUP	[07-DEC-2009]	HK0925762-004		**10**				
MPB1 MID-EBB B	[07-DEC-2009]	HK0925762-005		**10**				
MPB1 MID-EBB B DUP	[07-DEC-2009]	HK0925762-006		**10**				
MPB2 MID-EBB S	[07-DEC-2009]	HK0925762-007		**13**				
MPB2 MID-EBB S DUP	[07-DEC-2009]	HK0925762-008		**11**				
MPB2 MID-EBB M	[07-DEC-2009]	HK0925762-009		**15**				
MPB2 MID-EBB M DUP	[07-DEC-2009]	HK0925762-010		**12**				
MPB2 MID-EBB B	[07-DEC-2009]	HK0925762-011		**11**				
MPB2 MID-EBB B DUP	[07-DEC-2009]	HK0925762-012		**11**				
MP MID-EBB S	[07-DEC-2009]	HK0925762-013		**9**				
MP MID-EBB S DUP	[07-DEC-2009]	HK0925762-014		**9**				
MP MID-EBB M	[07-DEC-2009]	HK0925762-015		**9**				
MP MID-EBB M DUP	[07-DEC-2009]	HK0925762-016		**10**				
MP MID-EBB B	[07-DEC-2009]	HK0925762-017		**9**				
MP MID-EBB B DUP	[07-DEC-2009]	HK0925762-018		**8**				
IMO5 MID-EBB S	[07-DEC-2009]	HK0925762-043		**13**				
IMO5 MID-EBB S DUP	[07-DEC-2009]	HK0925762-044		**10**				
IMO5 MID-EBB M	[07-DEC-2009]	HK0925762-045		**10**				
IMO5 MID-EBB M DUP	[07-DEC-2009]	HK0925762-046		**10**				
IMO5 MID-EBB B	[07-DEC-2009]	HK0925762-047		**10**				
IMO5 MID-EBB B DUP	[07-DEC-2009]	HK0925762-048		**8**				
IMO6 MID-EBB S	[07-DEC-2009]	HK0925762-049		**10**				
IMO6 MID-EBB S DUP	[07-DEC-2009]	HK0925762-050		**10**				
IMO6 MID-EBB M	[07-DEC-2009]	HK0925762-051		**7**				
IMO6 MID-EBB M DUP	[07-DEC-2009]	HK0925762-052		**9**				
IMO6 MID-EBB B	[07-DEC-2009]	HK0925762-053		**11**				
IMO6 MID-EBB B DUP	[07-DEC-2009]	HK0925762-054		**13**				
C2 (NM5) MID-EBB S	[07-DEC-2009]	HK0925762-055		**9**				
C2 (NM5) MID-EBB S DUP	[07-DEC-2009]	HK0925762-056		**8**				
C2 (NM5) MID-EBB M	[07-DEC-2009]	HK0925762-057		**12**				
C2 (NM5) MID-EBB M DUP	[07-DEC-2009]	HK0925762-058		**15**				
C2 (NM5) MID-EBB B	[07-DEC-2009]	HK0925762-059		**10**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[07-DEC-2009]	HK0925762-060		**11**				
MPB1 MID-FLOOD S	[07-DEC-2009]	HK0925762-061		**13**				
MPB1 MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-062		**10**				
MPB1 MID-FLOOD M	[07-DEC-2009]	HK0925762-063		**11**				
MPB1 MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-064		**12**				
MPB1 MID-FLOOD B	[07-DEC-2009]	HK0925762-065		**11**				
MPB1 MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-066		**13**				
MPB2 MID-FLOOD S	[07-DEC-2009]	HK0925762-067		**11**				
MPB2 MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-068		**11**				
MPB2 MID-FLOOD M	[07-DEC-2009]	HK0925762-069		**14**				
MPB2 MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-070		**12**				
MPB2 MID-FLOOD B	[07-DEC-2009]	HK0925762-071		**12**				
MPB2 MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-072		**10**				
MP MID-FLOOD S	[07-DEC-2009]	HK0925762-073		**15**				
MP MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-074		**12**				
MP MID-FLOOD M	[07-DEC-2009]	HK0925762-075		**15**				
MP MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-076		**12**				
MP MID-FLOOD B	[07-DEC-2009]	HK0925762-077		**12**				
MP MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-078		**11**				
IMO5 MID-FLOOD S	[07-DEC-2009]	HK0925762-103		**10**				
IMO5 MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-104		**10**				
IMO5 MID-FLOOD M	[07-DEC-2009]	HK0925762-105		**10**				
IMO5 MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-106		**11**				
IMO5 MID-FLOOD B	[07-DEC-2009]	HK0925762-107		**10**				
IMO5 MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-108		**13**				
IMO6 MID-FLOOD S	[07-DEC-2009]	HK0925762-109		**10**				
IMO6 MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-110		**12**				
IMO6 MID-FLOOD M	[07-DEC-2009]	HK0925762-111		**12**				
IMO6 MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-112		**16**				
IMO6 MID-FLOOD B	[07-DEC-2009]	HK0925762-113		**12**				
IMO6 MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-114		**12**				
C1 (NM3) MID-FLOOD S	[07-DEC-2009]	HK0925762-115		**11**				
C1 (NM3) MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-116		**14**				
C1 (NM3) MID-FLOOD M	[07-DEC-2009]	HK0925762-117		**10**				
C1 (NM3) MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-118		**12**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[07-DEC-2009]	HK0925762-119		**12**				
C1 (NM3) MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-120		**12**				
C3 (NM6) MID-FLOOD S	[07-DEC-2009]	HK0925762-121		**11**				
C3 (NM6) MID-FLOOD S DUP	[07-DEC-2009]	HK0925762-122		**10**				
C3 (NM6) MID-FLOOD M	[07-DEC-2009]	HK0925762-123		**11**				
C3 (NM6) MID-FLOOD M DUP	[07-DEC-2009]	HK0925762-124		**12**				
C3 (NM6) MID-FLOOD B	[07-DEC-2009]	HK0925762-125		**12**				
C3 (NM6) MID-FLOOD B DUP	[07-DEC-2009]	HK0925762-126		**11**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1188639)								
HK0925762-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	13	12	12.8
HK0925762-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1188640)								
HK0925762-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	10	11	0.0
HK0925762-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	9	10	11.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1188641)								
HK0925762-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	0.0
HK0925762-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	15	17	11.7
EA/ED: Physical and Aggregate Properties (QC Lot: 1188642)								
HK0925762-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	10	10	0.0
HK0925762-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	12	12	0.0

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1188639)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188640)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188641)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1188642)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925812		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 08-DEC-2009		
Order number	: ----			Date of issue	: 12-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925812 supersedes any previous reports with this reference. The completion date of analysis is 11-DEC-2009. 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 HK0925812 : **Sample(s) were collected by ALS Technichem (HK) staff on 08 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[08-DEC-2009]	HK0925812-001		**11**				
MPB1 MID-EBB S DUP	[08-DEC-2009]	HK0925812-002		**10**				
MPB1 MID-EBB M	[08-DEC-2009]	HK0925812-003		**9**				
MPB1 MID-EBB M DUP	[08-DEC-2009]	HK0925812-004		**9**				
MPB1 MID-EBB B	[08-DEC-2009]	HK0925812-005		**13**				
MPB1 MID-EBB B DUP	[08-DEC-2009]	HK0925812-006		**10**				
MPB2 MID-EBB S	[08-DEC-2009]	HK0925812-007		**11**				
MPB2 MID-EBB S DUP	[08-DEC-2009]	HK0925812-008		**13**				
MPB2 MID-EBB M	[08-DEC-2009]	HK0925812-009		**12**				
MPB2 MID-EBB M DUP	[08-DEC-2009]	HK0925812-010		**12**				
MPB2 MID-EBB B	[08-DEC-2009]	HK0925812-011		**13**				
MPB2 MID-EBB B DUP	[08-DEC-2009]	HK0925812-012		**13**				
MP MID-EBB S	[08-DEC-2009]	HK0925812-013		**12**				
MP MID-EBB S DUP	[08-DEC-2009]	HK0925812-014		**12**				
MP MID-EBB M	[08-DEC-2009]	HK0925812-015		**11**				
MP MID-EBB M DUP	[08-DEC-2009]	HK0925812-016		**11**				
MP MID-EBB B	[08-DEC-2009]	HK0925812-017		**12**				
MP MID-EBB B DUP	[08-DEC-2009]	HK0925812-018		**11**				
IMO5 MID-EBB S	[08-DEC-2009]	HK0925812-043		**11**				
IMO5 MID-EBB S DUP	[08-DEC-2009]	HK0925812-044		**11**				
IMO5 MID-EBB M	[08-DEC-2009]	HK0925812-045		**12**				
IMO5 MID-EBB M DUP	[08-DEC-2009]	HK0925812-046		**11**				
IMO5 MID-EBB B	[08-DEC-2009]	HK0925812-047		**9**				
IMO5 MID-EBB B DUP	[08-DEC-2009]	HK0925812-048		**10**				
IMO6 MID-EBB S	[08-DEC-2009]	HK0925812-049		**11**				
IMO6 MID-EBB S DUP	[08-DEC-2009]	HK0925812-050		**11**				
IMO6 MID-EBB M	[08-DEC-2009]	HK0925812-051		**12**				
IMO6 MID-EBB M DUP	[08-DEC-2009]	HK0925812-052		**12**				
IMO6 MID-EBB B	[08-DEC-2009]	HK0925812-053		**12**				
IMO6 MID-EBB B DUP	[08-DEC-2009]	HK0925812-054		**13**				
C2 (NM5) MID-EBB S	[08-DEC-2009]	HK0925812-055		**11**				
C2 (NM5) MID-EBB S DUP	[08-DEC-2009]	HK0925812-056		**10**				
C2 (NM5) MID-EBB M	[08-DEC-2009]	HK0925812-057		**10**				
C2 (NM5) MID-EBB M DUP	[08-DEC-2009]	HK0925812-058		**11**				
C2 (NM5) MID-EBB B	[08-DEC-2009]	HK0925812-059		**11**				

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[08-DEC-2009]	HK0925812-060		**9**				
MPB1 MID-FLOOD S	[08-DEC-2009]	HK0925812-061		**11**				
MPB1 MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-062		**11**				
MPB1 MID-FLOOD M	[08-DEC-2009]	HK0925812-063		**9**				
MPB1 MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-064		**10**				
MPB1 MID-FLOOD B	[08-DEC-2009]	HK0925812-065		**11**				
MPB1 MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-066		**9**				
MPB2 MID-FLOOD S	[08-DEC-2009]	HK0925812-067		**10**				
MPB2 MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-068		**11**				
MPB2 MID-FLOOD M	[08-DEC-2009]	HK0925812-069		**11**				
MPB2 MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-070		**11**				
MPB2 MID-FLOOD B	[08-DEC-2009]	HK0925812-071		**11**				
MPB2 MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-072		**12**				
MP MID-FLOOD S	[08-DEC-2009]	HK0925812-073		**12**				
MP MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-074		**12**				
MP MID-FLOOD M	[08-DEC-2009]	HK0925812-075		**14**				
MP MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-076		**13**				
MP MID-FLOOD B	[08-DEC-2009]	HK0925812-077		**13**				
MP MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-078		**11**				
IMO5 MID-FLOOD S	[08-DEC-2009]	HK0925812-103		**19**				
IMO5 MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-104		**17**				
IMO5 MID-FLOOD M	[08-DEC-2009]	HK0925812-105		**15**				
IMO5 MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-106		**14**				
IMO5 MID-FLOOD B	[08-DEC-2009]	HK0925812-107		**12**				
IMO5 MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-108		**10**				
IMO6 MID-FLOOD S	[08-DEC-2009]	HK0925812-109		**11**				
IMO6 MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-110		**13**				
IMO6 MID-FLOOD M	[08-DEC-2009]	HK0925812-111		**12**				
IMO6 MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-112		**13**				
IMO6 MID-FLOOD B	[08-DEC-2009]	HK0925812-113		**12**				
IMO6 MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-114		**14**				
C1 (NM3) MID-FLOOD S	[08-DEC-2009]	HK0925812-115		**11**				
C1 (NM3) MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-116		**12**				
C1 (NM3) MID-FLOOD M	[08-DEC-2009]	HK0925812-117		**9**				
C1 (NM3) MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-118		**10**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[08-DEC-2009]	HK0925812-119		**11**				
C1 (NM3) MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-120		**10**				
C3 (NM6) MID-FLOOD S	[08-DEC-2009]	HK0925812-121		**9**				
C3 (NM6) MID-FLOOD S DUP	[08-DEC-2009]	HK0925812-122		**10**				
C3 (NM6) MID-FLOOD M	[08-DEC-2009]	HK0925812-123		**10**				
C3 (NM6) MID-FLOOD M DUP	[08-DEC-2009]	HK0925812-124		**12**				
C3 (NM6) MID-FLOOD B	[08-DEC-2009]	HK0925812-125		**9**				
C3 (NM6) MID-FLOOD B DUP	[08-DEC-2009]	HK0925812-126		**10**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1190948)								
HK0925812-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	11	10	11.1
HK0925812-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	13	12	8.7
EA/ED: Physical and Aggregate Properties (QC Lot: 1190949)								
HK0925812-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	12	10	13.3
HK0925812-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	11	11	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1190950)								
HK0925812-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	11	10	0.0
HK0925812-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	14	13	10.6
EA/ED: Physical and Aggregate Properties (QC Lot: 1190951)								
HK0925812-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	11	12	10.5
HK0925812-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	11	10	0.0

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1190948)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1190949)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	87.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1190950)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1190951)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	111	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925964		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 09-DEC-2009		
Order number	: ----			Date of issue	: 14-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925964 supersedes any previous reports with this reference. The completion date of analysis is 11-DEC-2009. 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 HK0925964 : **Sample(s) were collected by ALS Technichem (HK) staff on 09 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[09-DEC-2009]	HK0925964-001		**6**				
MPB1 MID-EBB S DUP	[09-DEC-2009]	HK0925964-002		**8**				
MPB1 MID-EBB M	[09-DEC-2009]	HK0925964-003		**8**				
MPB1 MID-EBB M DUP	[09-DEC-2009]	HK0925964-004		**10**				
MPB1 MID-EBB B	[09-DEC-2009]	HK0925964-005		**8**				
MPB1 MID-EBB B DUP	[09-DEC-2009]	HK0925964-006		**7**				
MPB2 MID-EBB S	[09-DEC-2009]	HK0925964-007		**8**				
MPB2 MID-EBB S DUP	[09-DEC-2009]	HK0925964-008		**8**				
MPB2 MID-EBB M	[09-DEC-2009]	HK0925964-009		**6**				
MPB2 MID-EBB M DUP	[09-DEC-2009]	HK0925964-010		**7**				
MPB2 MID-EBB B	[09-DEC-2009]	HK0925964-011		**9**				
MPB2 MID-EBB B DUP	[09-DEC-2009]	HK0925964-012		**9**				
MP MID-EBB S	[09-DEC-2009]	HK0925964-013		**8**				
MP MID-EBB S DUP	[09-DEC-2009]	HK0925964-014		**8**				
MP MID-EBB M	[09-DEC-2009]	HK0925964-015		**7**				
MP MID-EBB M DUP	[09-DEC-2009]	HK0925964-016		**9**				
MP MID-EBB B	[09-DEC-2009]	HK0925964-017		**7**				
MP MID-EBB B DUP	[09-DEC-2009]	HK0925964-018		**8**				
IMO5 MID-EBB S	[09-DEC-2009]	HK0925964-043		**7**				
IMO5 MID-EBB S DUP	[09-DEC-2009]	HK0925964-044		**8**				
IMO5 MID-EBB M	[09-DEC-2009]	HK0925964-045		**7**				
IMO5 MID-EBB M DUP	[09-DEC-2009]	HK0925964-046		**8**				
IMO5 MID-EBB B	[09-DEC-2009]	HK0925964-047		**10**				
IMO5 MID-EBB B DUP	[09-DEC-2009]	HK0925964-048		**8**				
IMO6 MID-EBB S	[09-DEC-2009]	HK0925964-049		**6**				
IMO6 MID-EBB S DUP	[09-DEC-2009]	HK0925964-050		**8**				
IMO6 MID-EBB M	[09-DEC-2009]	HK0925964-051		**9**				
IMO6 MID-EBB M DUP	[09-DEC-2009]	HK0925964-052		**7**				
IMO6 MID-EBB B	[09-DEC-2009]	HK0925964-053		**7**				
IMO6 MID-EBB B DUP	[09-DEC-2009]	HK0925964-054		**7**				
C2 (NM5) MID-EBB S	[09-DEC-2009]	HK0925964-055		**8**				
C2 (NM5) MID-EBB S DUP	[09-DEC-2009]	HK0925964-056		**7**				
C2 (NM5) MID-EBB M	[09-DEC-2009]	HK0925964-057		**9**				
C2 (NM5) MID-EBB M DUP	[09-DEC-2009]	HK0925964-058		**7**				
C2 (NM5) MID-EBB B	[09-DEC-2009]	HK0925964-059		**7**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[09-DEC-2009]	HK0925964-060		**6**				
MPB1 MID-FLOOD S	[09-DEC-2009]	HK0925964-061		**14**				
MPB1 MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-062		**12**				
MPB1 MID-FLOOD M	[09-DEC-2009]	HK0925964-063		**10**				
MPB1 MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-064		**11**				
MPB1 MID-FLOOD B	[09-DEC-2009]	HK0925964-065		**10**				
MPB1 MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-066		**9**				
MPB2 MID-FLOOD S	[09-DEC-2009]	HK0925964-067		**9**				
MPB2 MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-068		**7**				
MPB2 MID-FLOOD M	[09-DEC-2009]	HK0925964-069		**8**				
MPB2 MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-070		**8**				
MPB2 MID-FLOOD B	[09-DEC-2009]	HK0925964-071		**8**				
MPB2 MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-072		**9**				
MP MID-FLOOD S	[09-DEC-2009]	HK0925964-073		**14**				
MP MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-074		**14**				
MP MID-FLOOD M	[09-DEC-2009]	HK0925964-075		**9**				
MP MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-076		**8**				
MP MID-FLOOD B	[09-DEC-2009]	HK0925964-077		**8**				
MP MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-078		**9**				
IMO5 MID-FLOOD S	[09-DEC-2009]	HK0925964-103		**10**				
IMO5 MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-104		**8**				
IMO5 MID-FLOOD M	[09-DEC-2009]	HK0925964-105		**12**				
IMO5 MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-106		**14**				
IMO5 MID-FLOOD B	[09-DEC-2009]	HK0925964-107		**11**				
IMO5 MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-108		**10**				
IMO6 MID-FLOOD S	[09-DEC-2009]	HK0925964-109		**11**				
IMO6 MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-110		**9**				
IMO6 MID-FLOOD M	[09-DEC-2009]	HK0925964-111		**9**				
IMO6 MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-112		**10**				
IMO6 MID-FLOOD B	[09-DEC-2009]	HK0925964-113		**12**				
IMO6 MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-114		**10**				
C1 (NM3) MID-FLOOD S	[09-DEC-2009]	HK0925964-115		**12**				
C1 (NM3) MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-116		**12**				
C1 (NM3) MID-FLOOD M	[09-DEC-2009]	HK0925964-117		**9**				
C1 (NM3) MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-118		**8**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[09-DEC-2009]	HK0925964-119		**16**				
C1 (NM3) MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-120		**12**				
C3 (NM6) MID-FLOOD S	[09-DEC-2009]	HK0925964-121		**10**				
C3 (NM6) MID-FLOOD S DUP	[09-DEC-2009]	HK0925964-122		**10**				
C3 (NM6) MID-FLOOD M	[09-DEC-2009]	HK0925964-123		**6**				
C3 (NM6) MID-FLOOD M DUP	[09-DEC-2009]	HK0925964-124		**6**				
C3 (NM6) MID-FLOOD B	[09-DEC-2009]	HK0925964-125		**8**				
C3 (NM6) MID-FLOOD B DUP	[09-DEC-2009]	HK0925964-126		**9**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1192853)								
HK0925964-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	6	8	14.3
HK0925964-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	9	8	11.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1192854)								
HK0925964-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	7	7	0.0
HK0925964-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	8	8	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1192855)								
HK0925964-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	10	9	11.6
HK0925964-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	9	10	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1192856)								
HK0925964-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	11	10	0.0
HK0925964-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	16	14	14.9

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1192853)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1192854)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1192855)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1192856)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS KAREN LUI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0925995		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: Karen.Lui@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 10-DEC-2009		
Order number	: ----			Date of issue	: 15-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0925995 supersedes any previous reports with this reference. The completion date of analysis is 14-DEC-2009. 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 HK0925995 : **Sample(s) were collected by ALS Technichem (HK) staff on 10 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[10-DEC-2009]	HK0925995-001		**9**				
MPB1 MID-EBB S DUP	[10-DEC-2009]	HK0925995-002		**9**				
MPB1 MID-EBB M	[10-DEC-2009]	HK0925995-003		**8**				
MPB1 MID-EBB M DUP	[10-DEC-2009]	HK0925995-004		**10**				
MPB1 MID-EBB B	[10-DEC-2009]	HK0925995-005		**12**				
MPB1 MID-EBB B DUP	[10-DEC-2009]	HK0925995-006		**10**				
MPB2 MID-EBB S	[10-DEC-2009]	HK0925995-007		**9**				
MPB2 MID-EBB S DUP	[10-DEC-2009]	HK0925995-008		**11**				
MPB2 MID-EBB M	[10-DEC-2009]	HK0925995-009		**9**				
MPB2 MID-EBB M DUP	[10-DEC-2009]	HK0925995-010		**10**				
MPB2 MID-EBB B	[10-DEC-2009]	HK0925995-011		**11**				
MPB2 MID-EBB B DUP	[10-DEC-2009]	HK0925995-012		**10**				
MP MID-EBB S	[10-DEC-2009]	HK0925995-013		**10**				
MP MID-EBB S DUP	[10-DEC-2009]	HK0925995-014		**9**				
MP MID-EBB M	[10-DEC-2009]	HK0925995-015		**9**				
MP MID-EBB M DUP	[10-DEC-2009]	HK0925995-016		**8**				
MP MID-EBB B	[10-DEC-2009]	HK0925995-017		**10**				
MP MID-EBB B DUP	[10-DEC-2009]	HK0925995-018		**9**				
IMO5 MID-EBB S	[10-DEC-2009]	HK0925995-043		**9**				
IMO5 MID-EBB S DUP	[10-DEC-2009]	HK0925995-044		**8**				
IMO5 MID-EBB M	[10-DEC-2009]	HK0925995-045		**7**				
IMO5 MID-EBB M DUP	[10-DEC-2009]	HK0925995-046		**7**				
IMO5 MID-EBB B	[10-DEC-2009]	HK0925995-047		**9**				
IMO5 MID-EBB B DUP	[10-DEC-2009]	HK0925995-048		**8**				
IMO6 MID-EBB S	[10-DEC-2009]	HK0925995-049		**8**				
IMO6 MID-EBB S DUP	[10-DEC-2009]	HK0925995-050		**10**				
IMO6 MID-EBB M	[10-DEC-2009]	HK0925995-051		**9**				
IMO6 MID-EBB M DUP	[10-DEC-2009]	HK0925995-052		**8**				
IMO6 MID-EBB B	[10-DEC-2009]	HK0925995-053		**9**				
IMO6 MID-EBB B DUP	[10-DEC-2009]	HK0925995-054		**9**				
C2 (NM5) MID-EBB S	[10-DEC-2009]	HK0925995-055		**8**				
C2 (NM5) MID-EBB S DUP	[10-DEC-2009]	HK0925995-056		**9**				
C2 (NM5) MID-EBB M	[10-DEC-2009]	HK0925995-057		**11**				
C2 (NM5) MID-EBB M DUP	[10-DEC-2009]	HK0925995-058		**9**				
C2 (NM5) MID-EBB B	[10-DEC-2009]	HK0925995-059		**9**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[10-DEC-2009]	HK0925995-060		**10**				
MPB1 MID-FLOOD S	[10-DEC-2009]	HK0925995-061		**10**				
MPB1 MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-062		**9**				
MPB1 MID-FLOOD M	[10-DEC-2009]	HK0925995-063		**9**				
MPB1 MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-064		**8**				
MPB1 MID-FLOOD B	[10-DEC-2009]	HK0925995-065		**9**				
MPB1 MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-066		**7**				
MPB2 MID-FLOOD S	[10-DEC-2009]	HK0925995-067		**9**				
MPB2 MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-068		**11**				
MPB2 MID-FLOOD M	[10-DEC-2009]	HK0925995-069		**7**				
MPB2 MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-070		**8**				
MPB2 MID-FLOOD B	[10-DEC-2009]	HK0925995-071		**9**				
MPB2 MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-072		**9**				
MP MID-FLOOD S	[10-DEC-2009]	HK0925995-073		**8**				
MP MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-074		**9**				
MP MID-FLOOD M	[10-DEC-2009]	HK0925995-075		**7**				
MP MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-076		**9**				
MP MID-FLOOD B	[10-DEC-2009]	HK0925995-077		**8**				
MP MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-078		**7**				
IMO5 MID-FLOOD S	[10-DEC-2009]	HK0925995-103		**13**				
IMO5 MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-104		**12**				
IMO5 MID-FLOOD M	[10-DEC-2009]	HK0925995-105		**8**				
IMO5 MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-106		**7**				
IMO5 MID-FLOOD B	[10-DEC-2009]	HK0925995-107		**9**				
IMO5 MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-108		**8**				
IMO6 MID-FLOOD S	[10-DEC-2009]	HK0925995-109		**8**				
IMO6 MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-110		**10**				
IMO6 MID-FLOOD M	[10-DEC-2009]	HK0925995-111		**8**				
IMO6 MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-112		**8**				
IMO6 MID-FLOOD B	[10-DEC-2009]	HK0925995-113		**9**				
IMO6 MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-114		**11**				
C1 (NM3) MID-FLOOD S	[10-DEC-2009]	HK0925995-115		**10**				
C1 (NM3) MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-116		**10**				
C1 (NM3) MID-FLOOD M	[10-DEC-2009]	HK0925995-117		**10**				
C1 (NM3) MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-118		**10**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[10-DEC-2009]	HK0925995-119		**9**				
C1 (NM3) MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-120		**10**				
C3 (NM6) MID-FLOOD S	[10-DEC-2009]	HK0925995-121		**8**				
C3 (NM6) MID-FLOOD S DUP	[10-DEC-2009]	HK0925995-122		**8**				
C3 (NM6) MID-FLOOD M	[10-DEC-2009]	HK0925995-123		**8**				
C3 (NM6) MID-FLOOD M DUP	[10-DEC-2009]	HK0925995-124		**9**				
C3 (NM6) MID-FLOOD B	[10-DEC-2009]	HK0925995-125		**10**				
C3 (NM6) MID-FLOOD B DUP	[10-DEC-2009]	HK0925995-126		**8**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1194656)								
HK0925995-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	9	9	0.0
HK0925995-011	MPB2 MID-EBB B	EA025: Suspended Solids (SS)	----	2	mg/L	11	11	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1194657)								
HK0925995-045	IMO5 MID-EBB M	EA025: Suspended Solids (SS)	----	2	mg/L	7	8	13.1
HK0925995-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	8	9	12.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1194658)								
HK0925995-065	MPB1 MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	9	8	0.0
HK0925995-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	7	8	13.2
EA/ED: Physical and Aggregate Properties (QC Lot: 1194659)								
HK0925995-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	8	7	13.2
HK0925995-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	9	9	0.0

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1194656)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1194657)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1194658)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	112	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1194659)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	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.**

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 5		
Contact	: MS FRANCESCA ZINO	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK0926179		
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong				
E-mail	: francesca.zino@erm.com	E-mail	: Godfrey.Chan@alsenviro.com				
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044				
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021				
Project	: TUEN MUN	Quote number	: HK/1426c/2009**	Date received	: 11-DEC-2009		
Order number	: ----			Date of issue	: 16-DEC-2009		
C-O-C number	: ----			No. of samples	- Received :	78	
Site	: ----				- Analysed :	78	

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0926179 supersedes any previous reports with this reference. The completion date of analysis is 15-DEC-2009. 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 HK0926179 : **Sample(s) were collected by ALS Technichem (HK) staff on 11 December, 2009.**
Water sample(s) analysed and reported on an as received basis.

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Kong, Chapter 553, Section 6.

Signatory	Position	Authorised results for:-
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SEAWATER**

Client sample ID	Client sampling date / time	Laboratory sample ID	Compound	EA025: Suspended Solids (SS)				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
MPB1 MID-EBB S	[11-DEC-2009]	HK0926179-001		**8**				
MPB1 MID-EBB S DUP	[11-DEC-2009]	HK0926179-002		**6**				
MPB1 MID-EBB M	[11-DEC-2009]	HK0926179-003		**8**				
MPB1 MID-EBB M DUP	[11-DEC-2009]	HK0926179-004		**6**				
MPB1 MID-EBB B	[11-DEC-2009]	HK0926179-005		**8**				
MPB1 MID-EBB B DUP	[11-DEC-2009]	HK0926179-006		**10**				
MPB2 MID-EBB S	[11-DEC-2009]	HK0926179-007		**7**				
MPB2 MID-EBB S DUP	[11-DEC-2009]	HK0926179-008		**6**				
MPB2 MID-EBB M	[11-DEC-2009]	HK0926179-009		**8**				
MPB2 MID-EBB M DUP	[11-DEC-2009]	HK0926179-010		**8**				
MPB2 MID-EBB B	[11-DEC-2009]	HK0926179-011		**8**				
MPB2 MID-EBB B DUP	[11-DEC-2009]	HK0926179-012		**8**				
MP MID-EBB S	[11-DEC-2009]	HK0926179-013		**8**				
MP MID-EBB S DUP	[11-DEC-2009]	HK0926179-014		**8**				
MP MID-EBB M	[11-DEC-2009]	HK0926179-015		**7**				
MP MID-EBB M DUP	[11-DEC-2009]	HK0926179-016		**8**				
MP MID-EBB B	[11-DEC-2009]	HK0926179-017		**10**				
MP MID-EBB B DUP	[11-DEC-2009]	HK0926179-018		**8**				
IMO5 MID-EBB S	[11-DEC-2009]	HK0926179-043		**9**				
IMO5 MID-EBB S DUP	[11-DEC-2009]	HK0926179-044		**8**				
IMO5 MID-EBB M	[11-DEC-2009]	HK0926179-045		**8**				
IMO5 MID-EBB M DUP	[11-DEC-2009]	HK0926179-046		**9**				
IMO5 MID-EBB B	[11-DEC-2009]	HK0926179-047		**8**				
IMO5 MID-EBB B DUP	[11-DEC-2009]	HK0926179-048		**7**				
IMO6 MID-EBB S	[11-DEC-2009]	HK0926179-049		**10**				
IMO6 MID-EBB S DUP	[11-DEC-2009]	HK0926179-050		**8**				
IMO6 MID-EBB M	[11-DEC-2009]	HK0926179-051		**8**				
IMO6 MID-EBB M DUP	[11-DEC-2009]	HK0926179-052		**10**				
IMO6 MID-EBB B	[11-DEC-2009]	HK0926179-053		**9**				
IMO6 MID-EBB B DUP	[11-DEC-2009]	HK0926179-054		**7**				
C2 (NM5) MID-EBB S	[11-DEC-2009]	HK0926179-055		**9**				
C2 (NM5) MID-EBB S DUP	[11-DEC-2009]	HK0926179-056		**11**				
C2 (NM5) MID-EBB M	[11-DEC-2009]	HK0926179-057		**7**				
C2 (NM5) MID-EBB M DUP	[11-DEC-2009]	HK0926179-058		**9**				
C2 (NM5) MID-EBB B	[11-DEC-2009]	HK0926179-059		**6**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C2 (NM5) MID-EBB B DUP	[11-DEC-2009]	HK0926179-060		**8**				
MPB1 MID-FLOOD S	[11-DEC-2009]	HK0926179-061		**8**				
MPB1 MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-062		**8**				
MPB1 MID-FLOOD M	[11-DEC-2009]	HK0926179-063		**9**				
MPB1 MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-064		**7**				
MPB1 MID-FLOOD B	[11-DEC-2009]	HK0926179-065		**13**				
MPB1 MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-066		**11**				
MPB2 MID-FLOOD S	[11-DEC-2009]	HK0926179-067		**9**				
MPB2 MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-068		**9**				
MPB2 MID-FLOOD M	[11-DEC-2009]	HK0926179-069		**10**				
MPB2 MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-070		**10**				
MPB2 MID-FLOOD B	[11-DEC-2009]	HK0926179-071		**8**				
MPB2 MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-072		**9**				
MP MID-FLOOD S	[11-DEC-2009]	HK0926179-073		**7**				
MP MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-074		**9**				
MP MID-FLOOD M	[11-DEC-2009]	HK0926179-075		**9**				
MP MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-076		**9**				
MP MID-FLOOD B	[11-DEC-2009]	HK0926179-077		**9**				
MP MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-078		**9**				
IMO5 MID-FLOOD S	[11-DEC-2009]	HK0926179-103		**8**				
IMO5 MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-104		**9**				
IMO5 MID-FLOOD M	[11-DEC-2009]	HK0926179-105		**10**				
IMO5 MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-106		**9**				
IMO5 MID-FLOOD B	[11-DEC-2009]	HK0926179-107		**10**				
IMO5 MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-108		**8**				
IMO6 MID-FLOOD S	[11-DEC-2009]	HK0926179-109		**8**				
IMO6 MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-110		**7**				
IMO6 MID-FLOOD M	[11-DEC-2009]	HK0926179-111		**6**				
IMO6 MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-112		**8**				
IMO6 MID-FLOOD B	[11-DEC-2009]	HK0926179-113		**7**				
IMO6 MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-114		**6**				
C1 (NM3) MID-FLOOD S	[11-DEC-2009]	HK0926179-115		**6**				
C1 (NM3) MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-116		**7**				
C1 (NM3) MID-FLOOD M	[11-DEC-2009]	HK0926179-117		**7**				
C1 (NM3) MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-118		**9**				

Sub-Matrix: **SEAWATER**

Client sample ID	*Client sampling date / time*	*Laboratory sample ID*	*Compound*	**EA025: Suspended Solids (SS)**				
			LOR Unit	2 mg/L				
				EA/ED: Physical and Aggregate Properties				
C1 (NM3) MID-FLOOD B	[11-DEC-2009]	HK0926179-119		**10**				
C1 (NM3) MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-120		**9**				
C3 (NM6) MID-FLOOD S	[11-DEC-2009]	HK0926179-121		**8**				
C3 (NM6) MID-FLOOD S DUP	[11-DEC-2009]	HK0926179-122		**7**				
C3 (NM6) MID-FLOOD M	[11-DEC-2009]	HK0926179-123		**7**				
C3 (NM6) MID-FLOOD M DUP	[11-DEC-2009]	HK0926179-124		**9**				
C3 (NM6) MID-FLOOD B	[11-DEC-2009]	HK0926179-125		**8**				
C3 (NM6) MID-FLOOD B DUP	[11-DEC-2009]	HK0926179-126		**7**				

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1196055)								
HK0926179-001	MPB1 MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	8	9	12.3
HK0926179-013	MP MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	8	9	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1196056)								
HK0926179-046	IMO5 MID-EBB M DUP	EA025: Suspended Solids (SS)	----	2	mg/L	9	9	0.0
HK0926179-055	C2 (NM5) MID-EBB S	EA025: Suspended Solids (SS)	----	2	mg/L	9	10	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1196057)								
HK0926179-068	MPB2 MID-FLOOD S DUP	EA025: Suspended Solids (SS)	----	2	mg/L	9	8	12.0
HK0926179-075	MP MID-FLOOD M	EA025: Suspended Solids (SS)	----	2	mg/L	9	10	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1196058)								
HK0926179-109	IMO6 MID-FLOOD S	EA025: Suspended Solids (SS)	----	2	mg/L	8	6	14.2
HK0926179-119	C1 (NM3) MID-FLOOD B	EA025: Suspended Solids (SS)	----	2	mg/L	10	10	0.0

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 1196055)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	85.5	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1196056)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.0	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1196057)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	115	----	----
EA/ED: Physical and Aggregate Properties (QCLot: 1196058)											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	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 G

Impact Water Quality Monitoring Results

Sampling Date	12/1/2009
Weather & Ambient Temperature	Sunny, 22C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	12:16-12:19							
Water Depth (m)	20.2							
Monitoring Depth (m)	1.0		10.1		19.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.0	22.0	21.7	21.7	21.4	21.4	21.67	-
Salinity (ppt)	33.0	33.0	33.5	33.5	33.6	33.6	33.37	-
pH	8.2	8.2	8.3	8.2	8.2	8.2	8.23	
D.O. Saturation (%)	81.3	81.2	82.1	82.2	82.5	82.7	82.00	-
D.O. (mg/L)	5.9	5.9	5.9	6.0	6.0	6.0	5.93	5.98
Turbidity (NTU)	6.5	6.2	8.3	8.1	10.0	10.3	8.23	-
SS (mg/L)	19.0	17.0	11.0	11.0	14.0	16.0	14.67	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	12:00-12:03						Northing	Easting
Water Depth (m)	22.2						22.22.611	113.55.018
Monitoring Depth (m)	1.0		11.1		21.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.5	22.4	22.1	22.0	21.8	21.8	22.10	-
Salinity (ppt)	33.8	33.9	33.8	33.8	33.9	33.9	33.83	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.33	
D.O. Saturation (%)	84.6	83.8	82.3	82.8	83.8	84.4	83.62	-
D.O. (mg/L)	6.0	6.0	5.9	6.0	6.0	6.1	5.99	6.05
Turbidity (NTU)	8.2	8.5	7.7	7.8	7.3	7.4	7.82	-
SS (mg/L)	12	10	12	11	14	12	11.83	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	11:50-11:53						Northing	Easting
Water Depth (m)	18.2						22.21.619	113.55.676
Monitoring Depth (m)	1.0		9.1		17.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.0	22.0	21.9	21.9	21.8	21.8	21.89	-
Salinity (ppt)	33.9	33.9	33.9	33.9	34.0	34.0	33.93	-
pH	8.4	8.3	8.3	8.3	8.3	8.3	8.34	
D.O. Saturation (%)	82.6	82.8	81.7	82.0	83.1	82.3	82.42	-
D.O. (mg/L)	5.9	6.0	5.9	5.9	6.0	5.9	5.93	5.96
Turbidity (NTU)	4.9	4.6	6.1	5.7	7.4	7.6	6.05	-
SS (mg/L)	18.0	18.0	19.0	18.0	12.0	15.0	16.67	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	12:38-12:40							
Water Depth (m)	7.8							
Monitoring Depth (m)	1.0		3.9		6.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.8	21.8	21.7	21.7	21.79	-
Salinity (ppt)	33.0	33.0	33.1	33.1	33.5	33.5	33.20	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.30	
D.O. Saturation (%)	79.5	78.4	79.7	78.7	80.1	80.0	79.40	-
D.O. (mg/L)	5.8	5.7	5.8	5.7	5.8	5.8	5.75	5.81
Turbidity (NTU)	6.8	6.7	7.6	7.5	8.5	8.9	7.67	-
SS (mg/L)	14.0	12.0	15.0	18.0	16.0	16.0	15.17	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	12:48-12:50							
Water Depth (m)	8.2							
Monitoring Depth (m)	1.0		4.1		7.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.7	21.7	21.7	21.7	21.72	-
Salinity (ppt)	33.4	33.4	33.5	33.5	33.6	33.6	33.50	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.33	
D.O. Saturation (%)	87.4	87.9	84.9	85.6	84.3	84.6	85.78	-
D.O. (mg/L)	6.3	6.4	6.1	6.2	6.1	6.1	6.21	6.12
Turbidity (NTU)	10.1	10.1	11.6	12.1	12.9	13.3	11.68	-
SS (mg/L)	12.0	10.0	13.0	10.0	15.0	16.0	12.67	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	12:29-12:32							
Water Depth (m)	4.8							
Monitoring Depth (m)	1.0		2.4		3.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.8	21.7	21.7	21.76	-
Salinity (ppt)	33.0	33.0	32.9	33.0	32.9	32.9	32.94	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.18	
D.O. Saturation (%)	76.9	75.9	77.5	76.2	78.8	78.5	77.30	-
D.O. (mg/L)	5.6	5.5	5.6	5.5	5.7	5.7	5.61	5.71
Turbidity (NTU)	9.5	9.7	10.9	10.8	11.2	11.4	10.58	-
SS (mg/L)	10.0	11.0	10.0	11.0	15.0	13.0	11.67	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 OR C2*130%		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.7	10.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	19.1	19.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/1/2009
Weather & Ambient Temperature	Fine, 20C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	17:21-17:24							
Water Depth (m)	17.0							
Monitoring Depth (m)	1.0		8.5		16.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.8	21.7	21.7	21.76	-
Salinity (ppt)	34.0	34.0	34.0	34.1	34.1	34.1	34.06	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.40	
D.O. Saturation (%)	83.3	83.8	82.9	82.4	83.6	83.8	83.30	-
D.O. (mg/L)	6.0	6.0	6.0	5.9	6.0	6.1	6.01	6.04
Turbidity (NTU)	5.4	5.4	6.3	6.7	8.3	8.0	6.68	-
SS (mg/L)	13.0	11.0	10.0	12.0	14.0	13.0	12.17	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	15:56-15:58							
Water Depth (m)	6.4							
Monitoring Depth (m)	1.0		3.2		5.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.8	21.8	21.9	21.82	-
Salinity (ppt)	33.9	33.8	33.9	34.0	34.2	34.2	33.99	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.42	
D.O. Saturation (%)	83.4	83.1	84.2	84.3	85.0	84.9	84.15	-
D.O. (mg/L)	6.0	6.0	6.1	6.1	6.1	6.1	6.08	6.13
Turbidity (NTU)	9.2	9.2	9.6	9.7	11.1	10.5	9.88	-
SS (mg/L)	17.0	16.0	17.0	14.0	16.0	14.0	15.67	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	16:56-16:59						Northing	Easting
Water Depth (m)	22.8						22.2.602	113.55.026
Monitoring Depth (m)	1.0		11.4		21.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	23.5	23.5	22.5	22.5	22.0	22.0	22.66	-
Salinity (ppt)	33.6	33.6	33.7	33.8	33.8	33.8	33.72	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.39	
D.O. Saturation (%)	87.6	89.0	84.7	83.0	85.5	85.4	85.87	-
D.O. (mg/L)	6.2	6.2	6.0	6.0	6.2	6.1	6.11	6.15
Turbidity (NTU)	9.5	9.8	10.5	10.2	11.8	12.2	10.67	-
SS (mg/L)	17.0	15.0	16.0	15.0	14.0	11.0	14.67	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	17;05-17:10						Northing	Easting
Water Depth (m)	18.4						22.21.605	113.55.681
Monitoring Depth (m)	1.0		9.2		17.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.1	22.0	22.0	21.9	21.9	22.00	-
Salinity (ppt)	33.8	33.8	33.9	33.9	33.9	33.9	33.85	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.40	
D.O. Saturation (%)	84.4	84.8	83.7	83.8	84.8	85.1	84.43	-
D.O. (mg/L)	6.1	6.1	6.0	6.0	6.1	6.1	6.06	6.10
Turbidity (NTU)	5.5	5.4	6.1	6.3	6.8	7.1	6.20	-
SS (mg/L)	12.0	11.0	16.0	15.0	18.0	16.0	14.67	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	16:24-16:26							
Water Depth (m)	8.0							
Monitoring Depth (m)	1.0		4.0		7.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.8	21.8	21.8	21.8	21.86	-
Salinity (ppt)	32.7	32.7	32.8	32.8	33.1	33.1	32.89	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.38	
D.O. Saturation (%)	81.8	81.1	81.9	82.2	82.9	83.2	82.18	-
D.O. (mg/L)	5.9	5.9	5.9	6.0	6.0	6.0	5.94	6.00
Turbidity (NTU)	7.2	7.2	8.3	8.3	8.8	8.7	8.08	-
SS (mg/L)	13.0	12.0	12.0	11.0	11.0	12.0	11.83	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	16:13-16:15							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.8	21.8	21.8	21.8	21.82	-
Salinity (ppt)	33.6	33.5	33.7	33.6	33.2	33.5	33.52	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.41	
D.O. Saturation (%)	82.8	82.2	83.2	82.3	83.4	82.8	82.78	-
D.O. (mg/L)	6.0	5.9	6.0	6.0	6.1	6.0	5.99	6.03
Turbidity (NTU)	8.2	8.4	9.5	9.2	10.3	10.2	9.30	-
SS (mg/L)	10.0	12.0	12.0	11.0	13.0	10.0	11.33	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	16:34-16:36							
Water Depth (m)	5.1							
Monitoring Depth (m)	1.0		2.6		4.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.9	21.8	21.8	21.8	21.8	21.83	-
Salinity (ppt)	32.7	32.7	32.8	32.8	32.9	33.0	32.83	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.27	
D.O. Saturation (%)	80.3	80.7	80.2	80.5	80.8	81.0	80.58	-
D.O. (mg/L)	5.8	5.9	5.8	5.8	5.9	5.9	5.84	5.87
Turbidity (NTU)	10.5	10.4	11.4	11.5	12.4	12.7	11.48	-
SS (mg/L)	11.0	10.0	10.0	9.0	11.0	11.0	10.33	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		Mean C1&C3 OR (Mean C1&C3)*130%		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.1	6.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.8	10.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	18.1	18.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/2/2009
Weather & Ambient Temperature	Fine, 23C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	12:29-12:31							
Water Depth (m)	20.0							
Monitoring Depth (m)	1.0		10.0		19.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	22.0	22.0	22.0	22.0	21.98	-
Salinity (ppt)	34.6	34.6	34.7	34.7	35.0	35.1	34.77	-
pH	8.5	8.4	8.5	8.4	8.5	8.4	8.44	
D.O. Saturation (%)	87.0	86.6	83.9	83.7	87.4	82.0	85.10	-
D.O. (mg/L)	5.5	5.5	5.3	5.3	5.5	5.1	5.35	5.31
Turbidity (NTU)	6.8	7.5	14.3	13.8	15.5	14.9	12.13	-
SS (mg/L)	11.0	12.0	10.0	13.0	12.0	10.0	11.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	12:42-12:43						Northing	Easting
Water Depth (m)	13.6						22.21.641	113.54.506
Monitoring Depth (m)	1.0		6.8		12.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.0	22.0	22.0	22.0	22.0	22.0	22.02	-
Salinity (ppt)	34.7	34.7	34.7	34.7	34.8	34.8	34.73	-
pH	8.5	8.4	8.4	8.5	8.4	8.5	8.45	
D.O. Saturation (%)	85.0	84.3	83.7	84.8	84.0	85.1	84.48	-
D.O. (mg/L)	5.4	5.3	5.3	5.3	5.3	5.3	5.31	5.31
Turbidity (NTU)	8.7	8.5	14.0	13.6	14.5	15.1	12.40	-
SS (mg/L)	8.0	9.0	9.0	9.0	17.0	17.0	11.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	12:53-12:54						Northing	Easting
Water Depth (m)	10.8						22.21.166	113.54.877
Monitoring Depth (m)	1.0		5.4		9.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	22.0	22.0	22.0	22.0	21.97	-
Salinity (ppt)	34.3	34.2	34.7	34.9	35.1	34.3	34.59	-
pH	8.4	8.5	8.5	8.4	8.4	8.4	8.44	
D.O. Saturation (%)	83.7	85.3	84.1	80.5	86.0	81.4	83.50	-
D.O. (mg/L)	5.3	5.4	5.3	5.0	5.4	5.1	5.25	5.26
Turbidity (NTU)	9.4	9.4	13.8	13.9	15.2	14.8	12.75	-
SS (mg/L)	10.0	10.0	9.0	9.0	9.0	9.0	9.33	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB1							
Time (hh:mm)	11:57-11:58							
Water Depth (m)	8.0							
Monitoring Depth (m)	1.0		4.0		7.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.9	21.9	21.8	21.9	21.87	-
Salinity (ppt)	32.1	32.1	32.2	32.2	32.4	32.6	32.27	-
pH	8.4	8.4	8.4	8.4	8.3	8.4	8.35	
D.O. Saturation (%)	84.9	85.3	85.4	84.8	87.1	85.6	85.52	-
D.O. (mg/L)	5.6	5.6	5.6	5.5	5.7	5.6	5.58	5.64
Turbidity (NTU)	9.8	10.4	9.9	9.9	13.2	12.9	11.02	-
SS (mg/L)	10.0	11.0	9.0	9.0	10.0	9.0	9.67	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB2							
Time (hh:mm)	11:45-11:46							
Water Depth (m)	7.8							
Monitoring Depth (m)	1.0		3.9		6.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.9	21.8	21.9	21.8	21.84	-
Salinity (ppt)	31.6	31.5	31.8	31.8	32.6	32.8	32.02	-
pH	8.4	8.4	8.4	8.3	8.3	8.4	8.35	
D.O. Saturation (%)	85.9	85.5	86.1	84.6	85.0	86.0	85.52	-
D.O. (mg/L)	5.6	5.6	5.6	5.5	5.5	5.6	5.60	5.58
Turbidity (NTU)	7.3	7.4	7.3	7.6	8.9	8.3	7.80	-
SS (mg/L)	10.0	9.0	12.0	10.0	11.0	12.0	10.67	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MP							
Time (hh:mm)	12:10-12:11							
Water Depth (m)	5.1							
Monitoring Depth (m)	1.0		2.6		4.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.8	21.9	21.8	21.9	21.8	21.84	-
Salinity (ppt)	31.9	31.8	31.9	31.8	31.9	31.8	31.86	-
pH	8.4	8.4	8.4	8.3	8.4	8.3	8.35	
D.O. Saturation (%)	84.1	83.9	84.0	84.8	84.0	84.8	84.27	-
D.O. (mg/L)	5.5	5.5	5.5	5.6	5.5	5.6	5.51	5.52
Turbidity (NTU)	7.9	8.3	10.6	9.8	10.6	9.8	9.50	-
SS (mg/L)	16.0	14.0	10.0	11.0	10.0	12.0	12.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.3	5.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.3	5.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	15.8	15.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	14.7	14.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/2/2009
Weather & Ambient Temperature	Sunny, 19C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	7:00-7:02							
Water Depth (m)	16.0							
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.1	21.0	21.0	21.0	21.06	-
Salinity (ppt)	33.9	34.0	34.0	34.1	32.5	33.9	33.74	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.54	
D.O. Saturation (%)	92.2	93.8	92.4	92.2	92.1	95.0	92.95	-
D.O. (mg/L)	6.0	6.1	6.0	6.0	6.1	6.2	6.07	6.14
Turbidity (NTU)	7.6	7.5	8.7	8.3	10.2	10.5	8.80	-
SS (mg/L)	15.0	13.0	17.0	16.0	12.0	11.0	14.00	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	8:22-8:23							
Water Depth (m)	7.0							
Monitoring Depth (m)	1.0		3.5		6.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.9	21.9	21.8	21.8	21.86	-
Salinity (ppt)	34.1	33.6	33.6	34.1	34.0	34.0	33.89	-
pH	8.5	8.5	8.5	8.5	8.4	8.5	8.45	
D.O. Saturation (%)	91.3	94.8	95.3	93.0	97.8	94.0	94.37	-
D.O. (mg/L)	6.7	7.0	7.0	6.8	7.2	6.9	6.94	7.06
Turbidity (NTU)	12.1	11.6	11.8	12.8	11.7	11.5	11.92	-
SS (mg/L)	10.0	11.0	10.0	10.0	10.0	10.0	10.17	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	7:31-7:32						Northing	Easting
Water Depth (m)	14.0						22.21.635	113.54.511
Monitoring Depth (m)	1.0		7.0		13.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.9	21.9	21.9	21.84	-
Salinity (ppt)	34.2	34.2	34.2	32.8	34.3	34.3	34.00	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.40	
D.O. Saturation (%)	79.3	79.2	79.3	79.2	79.4	79.3	79.28	-
D.O. (mg/L)	5.6	5.6	5.6	5.6	5.6	5.6	5.58	5.58
Turbidity (NTU)	10.4	9.8	10.8	10.3	12.6	12.8	11.12	-
SS (mg/L)	10.0	10.0	10.0	8.0	11.0	9.0	9.67	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	7:20-7:22						Northing	Easting
Water Depth (m)	11.4						22.21.167	113.54.873
Monitoring Depth (m)	1.0		5.7		10.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.9	21.9	21.9	21.9	21.85	-
Salinity (ppt)	34.2	34.2	33.8	34.2	34.3	34.2	34.14	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.40	
D.O. Saturation (%)	83.2	83.6	83.3	83.6	83.3	83.7	83.45	-
D.O. (mg/L)	5.9	5.9	5.9	5.9	5.9	5.9	5.87	5.87
Turbidity (NTU)	9.3	10.3	12.6	13.3	13.3	13.8	12.10	-
SS (mg/L)	12.0	10.0	11.0	11.0	11.0	10.0	10.83	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	7:58-7:59							
Water Depth (m)	8.2							
Monitoring Depth (m)	1.0		4.1		7.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.2	21.1	21.1	21.2	21.1	21.1	21.16	-
Salinity (ppt)	33.9	33.9	33.9	30.3	34.0	34.0	33.32	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.42	
D.O. Saturation (%)	80.6	80.9	81.2	81.0	81.1	80.9	80.95	-
D.O. (mg/L)	5.8	5.9	5.9	6.0	5.9	5.9	5.89	5.88
Turbidity (NTU)	15.5	16.0	15.0	14.6	14.5	13.7	14.88	-
SS (mg/L)	10.0	11.0	11.0	9.0	11.0	12.0	10.67	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	8:07-8:08							
Water Depth (m)	8.4							
Monitoring Depth (m)	1.0		4.2		7.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.2	21.2	21.1	21.1	21.1	21.1	21.14	-
Salinity (ppt)	32.8	33.9	34.0	32.0	33.9	34.0	33.43	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.42	
D.O. Saturation (%)	81.3	81.6	82.0	81.3	81.5	82.1	81.63	-
D.O. (mg/L)	5.9	5.9	6.0	6.0	5.9	6.0	5.94	5.94
Turbidity (NTU)	14.6	14.6	14.3	14.6	17.0	17.8	15.48	-
SS (mg/L)	9.0	10.0	12.0	14.0	11.0	12.0	11.33	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	7:43-7:42							
Water Depth (m)	5.0							
Monitoring Depth (m)	1.0		2.5		4.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.4	21.5	21.5	21.4	21.47	-
Salinity (ppt)	33.6	33.6	33.5	33.5	33.5	33.5	33.52	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.26	
D.O. Saturation (%)	80.5	80.8	81.5	81.5	80.7	81.5	81.08	-
D.O. (mg/L)	5.8	5.9	5.9	5.9	5.8	5.9	5.87	5.87
Turbidity (NTU)	12.1	12.5	12.9	12.9	12.2	12.9	12.58	-
SS (mg/L)	12.0	12.0	10.0	10.0	10.0	10.0	10.67	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.6	6.6	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.5	6.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	13.5	13.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	15.7	15.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/3/2009
Weather & Ambient Temperature	Sunny, 20C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	13:33-13:35							
Water Depth (m)	20.6							
Monitoring Depth (m)	1.0		10.3		19.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.4	21.4	21.4	21.4	21.35	-
Salinity (ppt)	33.2	33.2	33.2	33.2	33.3	33.3	33.22	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.52	
D.O. Saturation (%)	75.8	75.7	75.4	75.4	76.0	76.2	75.75	-
D.O. (mg/L)	5.6	5.5	5.5	5.5	5.6	5.6	5.54	5.57
Turbidity (NTU)	30.2	30.9	33.6	33.3	38.4	37.9	34.05	-
SS (mg/L)	39.0	36.0	41.0	38.0	42.0	41.0	39.50	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	13:17-13:19						Northing	Easting
Water Depth (m)	13.6						22.22.058	113.54.360
Monitoring Depth (m)	1.0		6.8		12.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.69	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.79	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	78.2	78.7	78.3	78.5	78.3	79.1	78.52	-
D.O. (mg/L)	5.7	5.7	5.7	5.7	5.7	5.7	5.69	5.70
Turbidity (NTU)	34.7	35.9	39.3	38.9	44.1	43.8	39.45	-
SS (mg/L)	47.0	42.0	44.0	41.0	44.0	43.0	43.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	13:06-13:09						Northing	Easting
Water Depth (m)	11.6						22.21.062	113.54.911
Monitoring Depth (m)	1.0		5.8		10.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.6	21.6	21.6	21.6	21.7	21.7	21.65	-
Salinity (ppt)	33.9	33.9	33.9	33.9	33.9	34.0	33.90	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.62	
D.O. Saturation (%)	77.0	76.5	77.3	77.7	78.5	78.0	77.50	-
D.O. (mg/L)	5.6	5.6	5.6	5.6	5.7	5.7	5.62	5.67
Turbidity (NTU)	18.6	19.3	24.6	23.2	28.4	27.5	23.60	-
SS (mg/L)	37.0	41.0	38.0	49.0	40.0	44.0	41.50	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	12:38-12:40							
Water Depth (m)	7.6							
Monitoring Depth (m)	1.0		3.8		6.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.5	21.5	21.5	21.5	21.45	-
Salinity (ppt)	33.5	33.5	33.4	33.4	33.4	33.4	33.42	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.61	
D.O. Saturation (%)	75.3	75.2	74.1	74.5	75.6	75.7	75.07	-
D.O. (mg/L)	5.5	5.5	5.4	5.4	5.5	5.5	5.48	5.52
Turbidity (NTU)	34.8	35.4	37.0	37.6	41.4	40.6	37.80	-
SS (mg/L)	78.0	74.0	70.0	75.0	70.0	72.0	73.17	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	12:26-12:29							
Water Depth (m)	8.2							
Monitoring Depth (m)	1.0		4.1		7.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.5	21.5	21.4	21.5	21.47	-
Salinity (ppt)	33.7	33.7	33.7	33.7	33.8	33.7	33.70	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.63	
D.O. Saturation (%)	76.4	76.9	76.0	76.4	77.4	77.7	76.80	-
D.O. (mg/L)	5.6	5.6	5.5	5.6	5.6	5.7	5.59	5.64
Turbidity (NTU)	19.6	18.8	21.4	20.9	25.6	25.3	21.93	-
SS (mg/L)	40.0	39.0	48.0	41.0	42.0	39.0	41.50	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	12:48-12:50							
Water Depth (m)	4.9							
Monitoring Depth (m)	1.0		2.5		3.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.4	21.4	21.4	21.5	21.43	-
Salinity (ppt)	33.1	33.2	33.2	33.1	33.2	33.2	33.15	-
pH	8.5	8.6	8.6	8.5	8.5	8.5	8.54	
D.O. Saturation (%)	77.6	77.1	77.4	78.0	78.4	79.1	77.93	-
D.O. (mg/L)	5.7	5.6	5.7	5.7	5.7	5.8	5.70	5.76
Turbidity (NTU)	30.1	30.5	31.4	31.9	33.2	33.7	31.80	-
SS (mg/L)	47.0	44.0	44.0	40.0	43.0	41.0	43.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.6	5.6	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.5	5.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	44.3	44.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	51.4	51.4	-	-	-	-	-	-	-	-	N	N	N	N	Y	Y	N	N	N	N

Sampling Date	12/3/2009
Weather & Ambient Temperature	Fine, 16C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	8:09-8:11							
Water Depth (m)	16.8							
Monitoring Depth (m)	1.0		8.4		15.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.6	21.6	21.7	21.7	21.7	21.7	21.66	-
Salinity (ppt)	33.8	33.8	33.8	33.8	33.7	33.7	33.77	-
pH	8.6	8.6	8.6	8.6	8.5	8.5	8.55	
D.O. Saturation (%)	82.1	82.6	82.1	83.2	83.7	84.1	82.97	-
D.O. (mg/L)	5.9	6.0	5.9	6.0	6.0	6.1	6.00	6.06
Turbidity (NTU)	8.8	9.0	11.4	11.3	14.0	13.7	11.37	-
SS (mg/L)	22.0	20.0	21.0	19.0	20.0	20.0	20.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	8:35-8:38						Northing	Easting
Water Depth (m)	14.2						22.22.051	113.54.351
Monitoring Depth (m)	1.0		7.1		13.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.5	21.5	21.6	21.6	21.53	-
Salinity (ppt)	33.6	33.6	33.5	33.6	33.5	33.5	33.56	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.49	
D.O. Saturation (%)	76.2	76.4	75.9	76.4	76.8	76.6	76.38	-
D.O. (mg/L)	5.5	5.6	5.5	5.5	5.6	5.6	5.54	5.56
Turbidity (NTU)	30.9	30.3	33.0	32.2	37.9	37.1	33.57	-
SS (mg/L)	40.0	41.0	39.0	43.0	37.0	41.0	40.17	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	9:29-9:32							
Water Depth (m)	6.6							
Monitoring Depth (m)	1.0		3.3		5.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.3	21.3	21.3	21.3	21.3	21.2	21.28	-
Salinity (ppt)	34.2	34.2	34.1	34.1	34.1	34.1	34.12	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.63	
D.O. Saturation (%)	80.9	80.4	79.5	80.0	80.9	80.5	80.37	-
D.O. (mg/L)	5.9	5.8	5.8	5.8	5.9	5.8	5.83	5.87
Turbidity (NTU)	11.7	11.0	13.6	13.0	15.8	16.3	13.57	-
SS (mg/L)	25.0	22.0	25.0	22.0	24.0	21.0	23.17	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	8:25-8:28						Northing	Easting
Water Depth (m)	12.0						22.21.073	113.54.902
Monitoring Depth (m)	1.0		6.0		11.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.6	21.6	21.6	21.6	21.58	-
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.8	33.70	-
pH	8.5	8.5	8.5	8.4	8.4	8.4	8.44	
D.O. Saturation (%)	78.9	79.3	80.0	79.5	80.2	80.7	79.77	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	5.8	5.8	5.78	5.82
Turbidity (NTU)	21.8	21.8	27.2	26.5	29.4	30.1	26.13	-
SS (mg/L)	29.0	30.0	34.0	35.0	39.0	35.0	33.67	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	9:03-9:06							
Water Depth (m)	8.0							
Monitoring Depth (m)	1.0		4.0		7.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.3	21.3	21.3	21.3	21.3	21.3	21.29	-
Salinity (ppt)	33.2	33.2	33.1	33.1	33.1	33.1	33.12	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.51	
D.O. Saturation (%)	76.7	77.0	76.4	76.5	77.3	77.6	76.92	-
D.O. (mg/L)	5.6	5.6	5.6	5.6	5.6	5.7	5.61	5.65
Turbidity (NTU)	38.0	37.6	40.2	40.9	44.1	43.7	40.75	-
SS (mg/L)	72.0	67.0	73.0	71.0	54.0	59.0	66.00	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	9:15-9:17							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.4	21.4	21.4	21.4	21.36	-
Salinity (ppt)	33.5	33.6	33.5	33.5	33.5	33.5	33.52	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	75.9	76.2	75.7	75.4	76.3	76.5	76.00	-
D.O. (mg/L)	5.5	5.6	5.5	5.5	5.6	5.6	5.53	5.56
Turbidity (NTU)	28.2	28.6	29.6	30.2	33.0	31.7	30.22	-
SS (mg/L)	44.0	39.0	40.0	41.0	43.0	41.0	41.33	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	8:47-8:50							
Water Depth (m)	5.2							
Monitoring Depth (m)	1.0		2.6		4.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.5	21.5	21.5	21.5	21.45	-
Salinity (ppt)	33.3	33.3	33.3	33.3	33.3	33.3	33.30	-
pH	8.5	8.5	8.5	8.5	8.5	8.4	8.47	
D.O. Saturation (%)	75.4	75.1	74.4	74.7	75.7	75.7	75.17	-
D.O. (mg/L)	5.5	5.5	5.4	5.4	5.5	5.5	5.47	5.51
Turbidity (NTU)	30.3	29.2	33.2	33.6	37.4	38.5	33.70	-
SS (mg/L)	39.0	36.0	40.0	38.0	40.0	43.0	39.33	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	16.2	16.2	-	-	-	-	-	-	-	-	Y	N	N	N	Y	N	Y	N	Y	N
SS (Depth-averaged)	24.0	37.0	28.3	28.3	-	-	-	-	-	-	-	-	Y	Y	Y	N	Y	Y	Y	Y	Y	Y

Sampling Date	12/4/2009
Weather & Ambient Temperature	Fine, 21C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	14:10-14:12							
Water Depth (m)	20.2							
Monitoring Depth (m)	1.0		10.1		19.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.5	22.5	22.5	22.5	22.6	22.6	22.52	-
Salinity (ppt)	34.8	34.8	35.0	34.9	34.3	34.2	34.67	-
pH	8.7	8.7	8.7	8.6	8.6	8.7	8.65	
D.O. Saturation (%)	85.3	84.9	82.2	82.0	80.3	85.7	83.40	-
D.O. (mg/L)	5.4	5.4	5.2	5.2	5.0	5.4	5.27	5.23
Turbidity (NTU)	21.8	22.5	29.3	28.8	29.9	30.5	27.13	-
SS (mg/L)	17.0	18.0	18.0	20.0	18.0	19.0	18.33	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	14:23-14:24						Northing	Easting
Water Depth (m)	15.0						22.21.652	113.54.441
Monitoring Depth (m)	1.0		7.5		14.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.6	22.6	22.6	22.6	22.6	22.6	22.56	-
Salinity (ppt)	34.9	35.0	35.0	35.0	35.0	35.0	34.96	-
pH	8.7	8.7	8.6	8.7	8.6	8.7	8.66	
D.O. Saturation (%)	83.3	82.6	82.0	83.1	82.3	83.4	82.78	-
D.O. (mg/L)	5.3	5.2	5.2	5.3	5.2	5.3	5.23	5.23
Turbidity (NTU)	23.7	23.5	29.0	28.6	29.5	30.1	27.40	-
SS (mg/L)	18.0	15.0	17.0	16.0	17.0	16.0	16.50	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	14:34-14:35						Northing	Easting
Water Depth (m)	11.0						22.21.172	113.54.611
Monitoring Depth (m)	1.0		5.5		10.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.5	22.4	22.5	22.6	22.6	22.6	22.51	-
Salinity (ppt)	34.6	34.5	35.0	34.1	34.5	34.3	34.48	-
pH	8.6	8.7	8.7	8.6	8.6	8.7	8.65	
D.O. Saturation (%)	82.0	83.6	82.4	78.8	79.7	84.3	81.80	-
D.O. (mg/L)	5.2	5.3	5.2	5.0	5.0	5.3	5.17	5.18
Turbidity (NTU)	24.4	24.4	28.8	28.9	29.8	30.2	27.75	-
SS (mg/L)	16.0	19.0	17.0	17.0	20.0	18.0	17.83	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	13:38-13:39							
Water Depth (m)	9.0							
Monitoring Depth (m)	1.0		4.5		8.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.4	22.4	22.4	22.4	22.4	22.41	-
Salinity (ppt)	32.3	32.4	32.5	32.4	32.6	32.9	32.50	-
pH	8.6	8.6	8.6	8.6	8.5	8.6	8.56	
D.O. Saturation (%)	83.2	83.6	83.7	83.1	85.4	83.9	83.82	-
D.O. (mg/L)	5.5	5.5	5.5	5.5	5.6	5.5	5.50	5.56
Turbidity (NTU)	24.8	25.4	24.9	24.9	28.2	27.9	26.02	-
SS (mg/L)	19.0	21.0	16.0	16.0	14.0	16.0	17.00	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	13:26-13:27							
Water Depth (m)	9.2							
Monitoring Depth (m)	1.0		4.6		8.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.3	22.4	22.4	22.4	22.4	22.38	-
Salinity (ppt)	31.9	31.7	32.0	32.0	32.8	33.0	32.25	-
pH	8.6	8.6	8.5	8.6	8.5	8.6	8.56	
D.O. Saturation (%)	84.2	83.8	82.9	84.4	83.3	84.3	83.82	-
D.O. (mg/L)	5.6	5.5	5.5	5.6	5.5	5.5	5.52	5.50
Turbidity (NTU)	22.3	22.4	22.6	22.3	23.9	23.3	22.80	-
SS (mg/L)	19.0	16.0	17.0	17.0	17.0	20.0	17.67	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	13:51-13:52							
Water Depth (m)	5.0							
Monitoring Depth (m)	1.0		2.5		4.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.4	22.4	22.4	22.4	22.4	22.38	-
Salinity (ppt)	32.1	32.1	32.1	32.2	32.1	32.2	32.09	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.56	
D.O. Saturation (%)	82.4	82.2	83.1	82.3	83.1	82.3	82.57	-
D.O. (mg/L)	5.4	5.4	5.5	5.4	5.5	5.4	5.43	5.44
Turbidity (NTU)	22.9	23.3	24.8	25.6	24.8	25.6	24.50	-
SS (mg/L)	17.0	17.0	21.0	20.0	22.0	18.0	19.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.2	5.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.3	5.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	35.3	35.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	23.8	23.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/4/2009
Weather & Ambient Temperature	Sunny, 18C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	8:46-8:48							
Water Depth (m)	16.2							
Monitoring Depth (m)	1.0		8.1		15.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.6	21.6	21.6	21.6	21.60	-
Salinity (ppt)	34.2	34.2	34.3	34.2	32.7	34.2	33.97	-
pH	8.8	8.8	8.8	8.7	8.8	8.7	8.75	
D.O. Saturation (%)	90.5	92.1	90.5	90.7	90.4	93.3	91.25	-
D.O. (mg/L)	5.9	6.0	5.9	6.0	6.0	6.1	5.99	6.06
Turbidity (NTU)	22.6	22.5	23.3	23.7	25.2	25.5	23.80	-
SS (mg/L)	18.0	16.0	22.0	19.0	20.0	17.0	18.67	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	9:17-9:18						Northing	Easting
Water Depth (m)	15.4						22.21.628	113.54.440
Monitoring Depth (m)	1.0		7.7		14.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.4	22.4	22.4	22.4	22.4	22.38	-
Salinity (ppt)	34.5	34.5	34.4	33.1	34.5	34.5	34.23	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.61	
D.O. Saturation (%)	77.6	77.5	77.6	77.5	77.7	77.6	77.58	-
D.O. (mg/L)	5.5	5.5	5.5	5.5	5.5	5.5	5.50	5.50
Turbidity (NTU)	25.4	24.8	25.8	25.3	27.6	27.8	26.12	-
SS (mg/L)	17.0	18.0	18.0	18.0	18.0	19.0	18.00	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	10:08-10:09							
Water Depth (m)	7.2							
Monitoring Depth (m)	1.0		3.6		6.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.5	22.4	22.4	22.4	22.4	22.40	-
Salinity (ppt)	34.3	33.9	33.8	34.3	34.2	34.3	34.12	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.66	
D.O. Saturation (%)	89.6	93.1	93.6	91.3	96.1	92.3	92.67	-
D.O. (mg/L)	6.6	6.9	6.9	6.8	7.1	6.8	6.86	6.98
Turbidity (NTU)	27.1	26.6	26.8	27.8	26.7	30.0	27.50	-
SS (mg/L)	15.0	18.0	18.0	17.0	19.0	16.0	17.17	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	9:06-9:07						Northing	Easting
Water Depth (m)	11.1						22.21.172	113.54.806
Monitoring Depth (m)	1.0		5.6		10.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.4	22.4	22.4	22.4	22.4	22.39	-
Salinity (ppt)	34.4	34.5	34.0	34.4	34.4	34.5	34.37	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.61	
D.O. Saturation (%)	81.9	81.5	81.6	81.9	82.0	81.6	81.75	-
D.O. (mg/L)	5.8	5.8	5.8	5.8	5.8	5.8	5.79	5.79
Turbidity (NTU)	25.3	24.3	27.6	28.3	28.8	28.3	27.10	-
SS (mg/L)	19.0	17.0	24.0	22.0	19.0	16.0	19.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	9:44-9:45							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.7	21.7	21.7	21.7	21.7	21.70	-
Salinity (ppt)	34.2	34.2	34.1	30.5	34.2	34.2	33.55	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.63	
D.O. Saturation (%)	78.9	79.2	79.5	79.3	79.4	79.2	79.25	-
D.O. (mg/L)	5.8	5.8	5.8	5.9	5.8	5.8	5.81	5.80
Turbidity (NTU)	30.5	31.0	30.0	29.6	29.5	28.7	29.88	-
SS (mg/L)	17.0	20.0	17.0	18.0	15.0	15.0	17.00	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	9:53-9:54							
Water Depth (m)	8.9							
Monitoring Depth (m)	1.0		4.5		7.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.68	-
Salinity (ppt)	33.1	34.1	34.2	32.2	34.1	34.2	33.66	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.63	
D.O. Saturation (%)	79.6	79.9	80.3	79.6	79.8	80.4	79.93	-
D.O. (mg/L)	5.9	5.8	5.9	5.9	5.8	5.9	5.86	5.86
Turbidity (NTU)	29.6	29.6	29.3	29.6	32.0	32.8	30.48	-
SS (mg/L)	20.0	18.0	17.0	20.0	14.0	16.0	17.50	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	9;29-9:31							
Water Depth (m)	5.2							
Monitoring Depth (m)	1.0		2.6		4.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.0	21.9	22.1	22.1	22.0	22.01	-
Salinity (ppt)	33.8	33.8	33.7	33.7	33.8	33.7	33.75	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.47	
D.O. Saturation (%)	78.8	79.1	79.8	79.8	79.0	79.8	79.38	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	5.8	5.8	5.79	5.79
Turbidity (NTU)	27.1	27.5	27.9	27.9	27.2	27.9	27.58	-
SS (mg/L)	15.0	16.0	15.0	18.0	16.0	17.0	16.17	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.5	6.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.4	6.4	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	33.3	33.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	23.3	23.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/5/2009
Weather & Ambient Temperature	Sunny, 19C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	14:06-14:07							
Water Depth (m)	19.2							
Monitoring Depth (m)	1.0		9.6		18.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.1	21.1	21.1	21.1	21.09	-
Salinity (ppt)	34.0	33.9	33.9	34.0	34.0	33.9	33.94	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.59	
D.O. Saturation (%)	79.0	81.3	82.5	79.9	80.4	83.3	81.07	-
D.O. (mg/L)	5.8	5.9	6.0	5.8	5.9	6.1	5.92	5.97
Turbidity (NTU)	20.7	20.8	24.7	24.3	25.6	25.8	23.65	-
SS (mg/L)	39.0	44.0	39.0	45.0	50.0	58.0	45.83	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	14:59-15:00						Northing	Easting
Water Depth (m)	14.4						22.21.641	113.54.402
Monitoring Depth (m)	1.0		7.2		13.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.0	21.1	21.0	21.1	21.1	21.06	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.1	34.0	34.02	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	78.6	78.4	79.3	79.3	79.8	79.7	79.18	-
D.O. (mg/L)	5.7	5.7	5.8	5.8	5.8	5.8	5.78	5.82
Turbidity (NTU)	20.8	20.9	22.2	22.3	25.6	25.7	22.92	-
SS (mg/L)	45.0	40.0	44.0	50.0	52.0	56.0	47.83	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	15:11-15:12						Northing	Easting
Water Depth (m)	13.0						22.21.230	113.54.813
Monitoring Depth (m)	1.0		6.5		12.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.1	21.1	21.1	21.1	21.12	-
Salinity (ppt)	34.2	34.2	34.3	34.2	34.3	34.4	34.24	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.58	
D.O. Saturation (%)	79.5	81.0	80.5	81.0	79.2	80.9	80.35	-
D.O. (mg/L)	5.8	5.9	5.9	5.9	5.8	5.9	5.85	5.83
Turbidity (NTU)	20.5	20.3	24.2	24.1	26.7	26.2	23.67	-
SS (mg/L)	40.0	37.0	32.0	28.0	32.0	33.0	33.67	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB1							
Time (hh:mm)	14:37-14:38							
Water Depth (m)	8.0							
Monitoring Depth (m)	1.0		4.0		7.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.2	21.2	21.2	21.2	21.2	21.2	21.19	-
Salinity (ppt)	33.4	33.4	33.5	33.4	33.5	33.4	33.41	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.13	
D.O. Saturation (%)	79.7	77.7	78.2	80.0	79.0	82.0	79.43	-
D.O. (mg/L)	5.8	5.7	5.7	5.8	5.8	6.0	5.80	5.89
Turbidity (NTU)	20.6	20.7	25.6	25.1	27.2	27.6	24.47	-
SS (mg/L)	17.0	20.0	20.0	18.0	19.0	17.0	18.50	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB2							
Time (hh:mm)	14:47-14:49							
Water Depth (m)	8.4							
Monitoring Depth (m)	1.0		4.2		7.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.0	21.0	21.0	21.0	21.04	-
Salinity (ppt)	33.8	33.8	33.9	33.9	33.9	33.9	33.85	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	
D.O. Saturation (%)	79.2	79.0	78.8	78.9	79.8	80.1	79.30	-
D.O. (mg/L)	5.8	5.8	5.8	5.8	5.8	5.9	5.80	5.84
Turbidity (NTU)	19.6	19.7	22.4	22.7	25.4	24.9	22.45	-
SS (mg/L)	22.0	20.0	21.0	18.0	23.0	22.0	21.00	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MP							
Time (hh:mm)	14:28-14:29							
Water Depth (m)	5.2							
Monitoring Depth (m)	1.0		2.6		4.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.0	21.0	21.0	21.0	21.02	-
Salinity (ppt)	33.3	33.3	33.3	33.3	33.3	33.3	33.31	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09	
D.O. Saturation (%)	78.6	80.0	81.2	78.8	83.1	79.5	80.20	-
D.O. (mg/L)	5.8	5.9	6.0	5.8	6.1	5.8	5.88	5.97
Turbidity (NTU)	20.4	20.8	25.2	25.7	28.9	28.4	24.90	-
SS (mg/L)	26.0	25.0	22.0	24.0	25.0	24.0	24.33	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	30.7	30.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	59.6	59.6	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/5/2009
Weather & Ambient Temperature	Sunny, 16C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	9:57-9:59							
Water Depth (m)	16.6							
Monitoring Depth (m)	1.0		8.3		15.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.3	21.4	21.3	21.4	21.35	-
Salinity (ppt)	34.2	34.3	34.3	34.3	34.2	34.3	34.26	-
pH	8.1	8.0	8.1	8.1	8.2	8.1	8.09	
D.O. Saturation (%)	84.9	82.8	85.5	83.9	86.3	84.2	84.60	-
D.O. (mg/L)	6.2	6.0	6.2	6.1	6.3	6.1	6.13	6.19
Turbidity (NTU)	23.1	23.2	26.9	26.4	28.0	28.3	25.98	-
SS (mg/L)	36.0	32.0	35.0	28.0	36.0	40.0	34.50	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	11:12-11:14							
Water Depth (m)	6.8							
Monitoring Depth (m)	1.0		3.4		5.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.0	21.1	21.0	21.0	21.05	-
Salinity (ppt)	33.8	33.8	33.9	33.9	33.9	33.9	33.85	-
pH	8.3	8.2	8.3	8.3	8.3	8.3	8.25	
D.O. Saturation (%)	79.3	79.6	79.7	79.0	80.2	79.7	79.58	-
D.O. (mg/L)	5.8	5.8	5.8	5.8	5.9	5.8	5.81	5.85
Turbidity (NTU)	18.9	18.6	22.1	22.4	25.4	25.2	22.10	-
SS (mg/L)	23.0	26.0	20.0	22.0	16.0	19.0	21.00	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	10:26-10:27						Northing	Easting
Water Depth (m)	15.0						22.21.644	113.54.394
Monitoring Depth (m)	1.0		7.5		14.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	21.1	21.1	21.1	21.1	21.05	-
Salinity (ppt)	34.0	34.0	34.0	34.0	34.1	34.1	34.04	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	78.4	79.2	79.1	79.1	79.4	79.4	79.10	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	5.8	5.8	5.77	5.80
Turbidity (NTU)	22.4	22.2	24.2	23.8	25.2	26.1	23.98	-
SS (mg/L)	43.0	42.0	39.0	43.0	46.0	44.0	42.83	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	10:14-10:16						Northing	Easting
Water Depth (m)	13.4						22.21.233	113.54.802
Monitoring Depth (m)	1.0		6.7		12.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.1	21.1	21.1	21.1	21.08	-
Salinity (ppt)	34.2	34.2	34.3	34.3	34.4	34.4	34.30	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	78.7	79.2	79.6	80.2	80.0	79.4	79.52	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	5.8	5.8	5.79	5.80
Turbidity (NTU)	20.2	20.8	24.6	24.2	27.8	28.3	24.32	-
SS (mg/L)	30.0	30.0	52.0	49.0	37.0	34.0	38.67	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	10:48-10:49							
Water Depth (m)	8.4							
Monitoring Depth (m)	1.0		4.2		7.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.2	21.2	21.2	21.2	21.2	21.2	21.20	-
Salinity (ppt)	33.4	33.4	33.5	33.5	33.5	33.5	33.48	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.11	
D.O. Saturation (%)	77.6	76.6	77.4	76.8	77.9	77.4	77.28	-
D.O. (mg/L)	5.7	5.6	5.7	5.6	5.7	5.7	5.64	5.67
Turbidity (NTU)	17.7	17.9	26.6	26.8	28.0	28.3	24.22	-
SS (mg/L)	21.0	19.0	25.0	23.0	22.0	26.0	22.67	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	10:58-10:59							
Water Depth (m)	8.8							
Monitoring Depth (m)	1.0		4.4		7.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.0	21.0	21.0	21.0	21.03	-
Salinity (ppt)	33.7	33.8	33.8	33.7	33.8	33.7	33.76	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.17	
D.O. Saturation (%)	79.6	79.4	80.3	80.1	82.2	81.6	80.53	-
D.O. (mg/L)	5.8	5.8	5.9	5.9	6.0	6.0	5.89	5.99
Turbidity (NTU)	18.6	19.3	22.9	22.6	25.7	25.9	22.50	-
SS (mg/L)	24.0	23.0	28.0	23.0	26.0	30.0	25.67	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	10:39-10:40							
Water Depth (m)	5.8							
Monitoring Depth (m)	1.0		2.9		4.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	21.0	21.0	21.0	20.9	21.00	-
Salinity (ppt)	33.3	33.2	33.3	33.2	33.2	33.3	33.26	-
pH	8.1	8.1	8.1	8.2	8.2	8.1	8.14	
D.O. Saturation (%)	81.6	82.8	83.2	84.1	86.2	85.4	83.88	-
D.O. (mg/L)	6.0	6.1	6.1	6.2	6.3	6.3	6.15	6.30
Turbidity (NTU)	18.4	18.8	22.9	22.1	24.1	24.3	21.77	-
SS (mg/L)	28.0	25.0	29.0	29.0	38.0	35.0	30.67	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	31.3	31.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	36.1	36.1	-	-	-	-	-	-	-	-	Y	Y	Y	Y	N	N	N	N	N	N

Sampling Date	12/6/2009
Weather & Ambient Temperature	Fine, 19C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	15:53-15:55							
Water Depth (m)	20.0							
Monitoring Depth (m)	1.0		10.0		19.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.3	22.3	22.4	22.3	22.4	22.4	22.34	-
Salinity (ppt)	34.7	34.6	34.8	34.7	34.2	34.1	34.50	-
pH	8.6	8.6	8.6	8.6	8.5	8.6	8.59	
D.O. Saturation (%)	82.0	81.6	78.9	78.7	77.0	82.4	80.10	-
D.O. (mg/L)	5.3	5.2	5.0	5.0	4.9	5.3	5.11	5.07
Turbidity (NTU)	20.7	21.4	28.2	27.7	28.8	29.4	26.03	-
SS (mg/L)	19.0	17.0	17.0	18.0	20.0	16.0	17.83	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	16:06-16:07						Northing	Easting
Water Depth (m)	13.9						22.21.650	113.54.543
Monitoring Depth (m)	1.0		7.0		12.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.4	22.4	22.4	22.4	22.4	22.4	22.38	-
Salinity (ppt)	34.7	34.8	34.8	34.8	34.8	34.8	34.79	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.60	
D.O. Saturation (%)	80.0	79.3	78.7	79.8	80.1	79.0	79.48	-
D.O. (mg/L)	5.1	5.1	5.0	5.1	5.1	5.0	5.07	5.07
Turbidity (NTU)	22.6	22.4	23.5	23.1	24.6	24.0	23.37	-
SS (mg/L)	22.0	19.0	16.0	17.0	16.0	17.0	17.83	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	16:17-16:18						Northing	Easting
Water Depth (m)	12.3						22.21.244	113.54.950
Monitoring Depth (m)	1.0		6.2		11.3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.3	22.3	22.4	22.3	22.4	22.4	22.33	-
Salinity (ppt)	34.4	34.3	34.0	34.8	34.1	34.3	34.31	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.59	
D.O. Saturation (%)	78.7	80.3	75.5	79.1	81.0	76.4	78.50	-
D.O. (mg/L)	5.0	5.1	4.8	5.0	5.2	4.9	5.01	5.02
Turbidity (NTU)	23.3	23.3	23.4	23.3	24.7	24.3	23.72	-
SS (mg/L)	21.0	19.0	18.0	21.0	20.0	22.0	20.17	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	15:21-15:22							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.2	22.3	22.2	22.2	22.23	-
Salinity (ppt)	32.1	32.2	32.2	32.3	32.7	32.5	32.33	-
pH	8.5	8.5	8.5	8.5	8.5	8.4	8.50	
D.O. Saturation (%)	79.9	80.3	79.8	80.4	80.6	82.1	80.52	-
D.O. (mg/L)	5.3	5.3	5.3	5.3	5.3	5.5	5.34	5.40
Turbidity (NTU)	23.7	24.3	23.8	23.8	26.8	27.1	24.92	-
SS (mg/L)	20.0	18.0	19.0	20.0	24.0	26.0	21.17	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	15:09-15:10							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.1	22.2	22.2	22.2	22.2	22.20	-
Salinity (ppt)	31.7	31.6	31.9	31.9	32.7	32.9	32.08	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.50	
D.O. Saturation (%)	80.9	80.5	79.6	81.1	80.0	81.0	80.52	-
D.O. (mg/L)	5.4	5.4	5.3	5.4	5.3	5.4	5.36	5.34
Turbidity (NTU)	21.2	21.3	21.5	21.2	22.8	22.2	21.70	-
SS (mg/L)	23.0	26.0	26.0	21.0	21.0	18.0	22.50	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	15:33-15:34							
Water Depth (m)	5.1							
Monitoring Depth (m)	1.0		2.5		4.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.2	22.2	22.2	22.2	22.20	-
Salinity (ppt)	31.9	31.9	32.0	31.9	32.0	31.9	31.92	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.50	
D.O. Saturation (%)	79.1	78.9	79.0	79.8	79.0	79.8	79.27	-
D.O. (mg/L)	5.3	5.2	5.3	5.3	5.3	5.3	5.27	5.28
Turbidity (NTU)	21.8	22.2	24.5	23.7	24.5	23.7	23.40	-
SS (mg/L)	21.0	20.0	24.0	20.0	26.0	22.0	22.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.1	5.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.1	5.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	33.8	33.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	23.2	23.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/6/2009
Weather & Ambient Temperature	Sunny, 16C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	10:20-10:22							
Water Depth (m)	16.0							
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.4	21.4	21.4	21.4	21.42	-
Salinity (ppt)	34.0	34.1	34.1	34.1	34.0	32.6	33.80	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.69	
D.O. Saturation (%)	87.2	88.8	87.4	87.2	90.0	87.1	87.95	-
D.O. (mg/L)	5.8	5.9	5.8	5.8	6.0	5.8	5.83	5.90
Turbidity (NTU)	21.5	21.4	22.6	22.2	24.4	24.1	22.70	-
SS (mg/L)	20.0	23.0	23.0	20.0	20.0	21.0	21.17	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	10:51-10:52						Northing	Easting
Water Depth (m)	14.6						22.21.653	113.54.557
Monitoring Depth (m)	1.0		7.3		13.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.2	22.2	22.2	22.2	22.20	-
Salinity (ppt)	34.3	34.3	34.2	32.9	34.3	34.4	34.06	-
pH	8.5	8.6	8.5	8.6	8.6	8.5	8.55	
D.O. Saturation (%)	74.3	74.2	74.3	74.2	74.3	74.4	74.28	-
D.O. (mg/L)	5.3	5.3	5.3	5.4	5.3	5.3	5.34	5.34
Turbidity (NTU)	19.9	19.3	20.3	19.8	22.3	22.1	20.62	-
SS (mg/L)	19.0	19.0	18.0	17.0	19.0	18.0	18.33	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	11:42-11:43							
Water Depth (m)	7.0							
Monitoring Depth (m)	1.0		3.5		6.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.3	22.2	22.2	22.2	22.2	22.22	-
Salinity (ppt)	34.2	33.7	33.7	34.1	34.0	34.1	33.95	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.60	
D.O. Saturation (%)	86.3	89.8	90.3	88.0	92.8	89.0	89.37	-
D.O. (mg/L)	6.5	6.7	6.8	6.6	7.0	6.7	6.70	6.82
Turbidity (NTU)	21.6	21.1	21.3	22.3	21.2	24.5	22.00	-
SS (mg/L)	20.0	21.0	18.0	19.0	19.0	19.0	19.33	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	10:40-10;42						Northing	Easting
Water Depth (m)	13.0						22.21.244	113.54.938
Monitoring Depth (m)	1.0		6.5		12.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.2	22.2	22.2	22.2	22.21	-
Salinity (ppt)	34.3	34.3	34.2	33.8	34.3	34.3	34.20	-
pH	8.5	8.6	8.5	8.6	8.6	8.5	8.55	
D.O. Saturation (%)	78.6	78.2	78.6	78.3	78.3	78.7	78.45	-
D.O. (mg/L)	5.6	5.6	5.6	5.6	5.6	5.6	5.63	5.63
Turbidity (NTU)	19.8	18.8	22.8	22.1	22.8	23.3	21.60	-
SS (mg/L)	17.0	18.0	19.0	19.0	16.0	16.0	17.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	11:18-11:19							
Water Depth (m)	9.2							
Monitoring Depth (m)	1.0		4.6		8.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.6	21.5	21.5	21.5	21.5	21.5	21.52	-
Salinity (ppt)	34.0	34.0	33.9	30.4	34.0	34.0	33.38	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	75.6	75.9	76.2	76.0	76.1	75.9	75.95	-
D.O. (mg/L)	5.6	5.6	5.7	5.8	5.7	5.6	5.65	5.64
Turbidity (NTU)	25.0	25.5	24.5	24.1	24.0	23.2	24.38	-
SS (mg/L)	17.0	17.0	20.0	19.0	23.0	20.0	19.33	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	11:27-11:28							
Water Depth (m)	9.0							
Monitoring Depth (m)	1.0		4.5		8.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.5	21.5	21.5	21.5	21.5	21.50	-
Salinity (ppt)	32.9	34.0	34.0	32.1	34.0	34.0	33.49	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	76.3	76.6	77.0	76.3	77.1	76.5	76.63	-
D.O. (mg/L)	5.7	5.7	5.7	5.7	5.7	5.7	5.70	5.70
Turbidity (NTU)	24.1	24.1	23.8	24.1	27.3	26.5	24.98	-
SS (mg/L)	19.0	20.0	19.0	20.0	18.0	18.0	19.00	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	11:03-11:05							
Water Depth (m)	5.4							
Monitoring Depth (m)	1.0		2.7		4.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.8	21.8	21.9	21.8	21.9	21.83	-
Salinity (ppt)	33.6	33.6	33.5	33.5	33.6	33.6	33.58	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.41	
D.O. Saturation (%)	75.5	75.8	76.5	76.5	76.5	75.7	76.08	-
D.O. (mg/L)	5.6	5.6	5.7	5.7	5.7	5.6	5.63	5.63
Turbidity (NTU)	21.6	22.0	22.4	22.4	22.4	21.7	22.08	-
SS (mg/L)	14.0	16.0	13.0	16.0	15.0	13.0	14.50	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.4	6.4	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.3	6.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	29.1	29.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	26.3	26.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/7/2009
Weather & Ambient Temperature	Rainy, 17C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	17:00-17:02							
Water Depth (m)	20.0							
Monitoring Depth (m)	1.0		10.0		19.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.3	22.3	22.3	22.3	22.27	-
Salinity (ppt)	34.4	34.3	34.5	34.4	33.9	33.8	34.21	-
pH	8.8	8.7	8.8	8.7	8.7	8.8	8.74	
D.O. Saturation (%)	82.1	81.7	79.0	78.8	77.1	82.5	80.20	-
D.O. (mg/L)	5.3	5.2	5.0	5.0	4.9	5.3	5.11	5.07
Turbidity (NTU)	23.8	24.5	31.3	30.8	31.9	32.5	29.13	-
SS (mg/L)	9.0	8.0	12.0	15.0	10.0	11.0	10.83	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	17;12-17:13						Northing	Easting
Water Depth (m)	15.4						22.21.620	113.54.501
Monitoring Depth (m)	1.0		7.7		14.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.3	22.3	22.3	22.3	22.3	22.3	22.31	-
Salinity (ppt)	34.5	34.4	34.5	34.5	34.5	34.5	34.50	-
pH	8.7	8.8	8.7	8.8	8.7	8.8	8.75	
D.O. Saturation (%)	79.4	80.1	78.8	79.9	79.1	80.2	79.58	-
D.O. (mg/L)	5.1	5.1	5.0	5.1	5.0	5.1	5.07	5.07
Turbidity (NTU)	25.5	25.7	26.6	26.2	27.1	27.7	26.47	-
SS (mg/L)	13.0	10.0	10.0	10.0	10.0	8.0	10.17	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	17:23-17:24						Northing	Easting
Water Depth (m)	9.9						22.21.166	113.54.827
Monitoring Depth (m)	1.0		5.0		8.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.3	22.3	22.3	22.3	22.26	-
Salinity (ppt)	34.1	34.0	33.7	34.5	33.8	34.0	34.02	-
pH	8.7	8.8	8.7	8.8	8.7	8.7	8.74	
D.O. Saturation (%)	78.8	80.4	75.6	79.2	81.1	76.5	78.60	-
D.O. (mg/L)	5.0	5.1	4.8	5.0	5.2	4.9	5.01	5.02
Turbidity (NTU)	26.4	26.4	26.5	26.4	27.8	27.4	26.82	-
SS (mg/L)	10.0	10.0	7.0	9.0	11.0	13.0	10.00	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	16:28-16:29							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.2	22.2	22.1	22.2	22.16	-
Salinity (ppt)	31.8	31.9	32.0	32.0	32.2	32.4	32.04	-
pH	8.7	8.7	8.7	8.7	8.6	8.7	8.65	
D.O. Saturation (%)	80.0	80.4	79.9	80.5	82.2	80.7	80.62	-
D.O. (mg/L)	5.3	5.3	5.3	5.3	5.5	5.3	5.34	5.40
Turbidity (NTU)	26.8	27.4	26.9	26.9	30.2	29.9	28.02	-
SS (mg/L)	13.0	10.0	12.0	10.0	10.0	10.0	10.83	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	16:16-16:17							
Water Depth (m)	8.5							
Monitoring Depth (m)	1.0		4.3		7.5			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.1	22.1	22.2	22.2	22.1	22.13	-
Salinity (ppt)	31.3	31.4	31.6	31.6	32.4	32.6	31.79	-
pH	8.7	8.7	8.6	8.7	8.6	8.7	8.65	
D.O. Saturation (%)	80.6	81.0	79.7	81.2	80.1	81.1	80.62	-
D.O. (mg/L)	5.4	5.4	5.3	5.4	5.3	5.4	5.36	5.34
Turbidity (NTU)	24.4	24.3	24.6	24.3	25.9	25.3	24.80	-
SS (mg/L)	13.0	11.0	15.0	12.0	11.0	11.0	12.17	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	16:40-16:41							
Water Depth (m)	5.1							
Monitoring Depth (m)	1.0		2.5		4.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.1	22.1	22.1	22.1	22.1	22.13	-
Salinity (ppt)	31.6	31.6	31.7	31.6	31.7	31.6	31.63	-
pH	8.7	8.7	8.7	8.6	8.7	8.6	8.65	
D.O. Saturation (%)	80.9	80.7	80.8	81.6	80.8	81.6	81.07	-
D.O. (mg/L)	5.3	5.3	5.3	5.4	5.3	5.4	5.35	5.36
Turbidity (NTU)	24.9	25.3	27.6	26.8	27.6	26.8	26.50	-
SS (mg/L)	9.0	9.0	9.0	10.0	9.0	8.0	9.00	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.1	5.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.1	5.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	37.9	37.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	14.1	14.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/7/2009
Weather & Ambient Temperature	Rainy, 18C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	11:05-11:07							
Water Depth (m)	16.0							
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.4	21.3	21.3	21.3	21.35	-
Salinity (ppt)	33.7	33.8	33.8	33.8	33.7	32.3	33.51	-
pH	8.8	8.8	8.8	8.8	8.8	8.8	8.84	
D.O. Saturation (%)	85.6	87.2	85.8	85.6	88.4	85.5	86.35	-
D.O. (mg/L)	5.7	5.8	5.7	5.7	5.9	5.7	5.75	5.82
Turbidity (NTU)	24.6	24.5	25.7	25.3	27.5	27.2	25.80	-
SS (mg/L)	11.0	14.0	10.0	12.0	12.0	12.0	11.83	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	11:36-11:37						Northing	Easting
Water Depth (m)	16.0						22.21.628	113.54.515
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.1	22.1	22.2	22.2	22.2	22.13	-
Salinity (ppt)	34.0	34.0	33.9	32.6	34.1	34.1	33.77	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.70	
D.O. Saturation (%)	77.8	77.7	77.8	77.7	77.8	77.9	77.78	-
D.O. (mg/L)	5.5	5.5	5.5	5.5	5.5	5.5	5.50	5.50
Turbidity (NTU)	23.0	22.4	23.4	22.9	25.4	25.2	23.72	-
SS (mg/L)	10.0	10.0	10.0	11.0	10.0	13.0	10.67	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	12:27-12:28							
Water Depth (m)	7.0							
Monitoring Depth (m)	1.0		3.5		6.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.2	22.2	22.1	22.1	22.1	22.1	22.15	-
Salinity (ppt)	33.9	33.4	33.4	33.8	33.7	33.8	33.66	-
pH	8.8	8.8	8.8	8.8	8.7	8.8	8.75	
D.O. Saturation (%)	84.7	88.2	88.7	86.4	91.2	87.4	87.77	-
D.O. (mg/L)	6.4	6.7	6.7	6.5	6.9	6.6	6.62	6.74
Turbidity (NTU)	24.7	24.2	24.4	25.4	24.3	27.6	25.10	-
SS (mg/L)	11.0	10.0	11.0	12.0	12.0	11.0	11.17	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	11:25-11:26						Northing	Easting
Water Depth (m)	10.6						22.21.168	113.54.832
Monitoring Depth (m)	1.0		5.3		9.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	22.1	22.1	22.2	22.1	22.2	22.2	22.14	-
Salinity (ppt)	34.0	34.0	33.9	33.6	34.0	34.1	33.91	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.70	
D.O. Saturation (%)	82.1	81.7	82.1	81.8	82.2	81.8	81.95	-
D.O. (mg/L)	5.8	5.8	5.8	5.8	5.8	5.8	5.79	5.79
Turbidity (NTU)	22.9	21.9	25.9	25.2	26.4	25.9	24.70	-
SS (mg/L)	10.0	12.0	12.0	16.0	12.0	12.0	12.33	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	12:03-12:04							
Water Depth (m)	9.4							
Monitoring Depth (m)	1.0		4.7		8.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.4	21.4	21.4	21.4	21.4	21.45	-
Salinity (ppt)	33.7	33.7	33.6	30.1	33.7	33.7	33.09	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.72	
D.O. Saturation (%)	79.1	79.4	79.7	79.5	79.4	79.6	79.45	-
D.O. (mg/L)	5.8	5.8	5.8	5.9	5.8	5.8	5.81	5.80
Turbidity (NTU)	28.1	28.6	27.6	27.2	26.3	27.1	27.48	-
SS (mg/L)	13.0	10.0	11.0	12.0	11.0	13.0	11.67	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	12:12-12:13							
Water Depth (m)	9.2							
Monitoring Depth (m)	1.0		4.6		8.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.4	21.4	21.4	21.4	21.4	21.43	-
Salinity (ppt)	32.6	33.7	31.8	33.7	33.7	33.7	33.20	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.72	
D.O. Saturation (%)	79.8	80.1	79.8	80.5	80.6	80.0	80.13	-
D.O. (mg/L)	5.9	5.8	5.9	5.9	5.9	5.8	5.86	5.86
Turbidity (NTU)	27.2	27.2	27.2	26.9	30.4	29.6	28.08	-
SS (mg/L)	11.0	11.0	14.0	12.0	12.0	10.0	11.67	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	11:48-11:50							
Water Depth (m)	5.4							
Monitoring Depth (m)	1.0		2.7		4.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.7	21.8	21.7	21.8	21.76	-
Salinity (ppt)	33.4	33.3	33.3	33.2	33.3	33.3	33.29	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.56	
D.O. Saturation (%)	79.0	79.3	80.0	80.0	80.0	79.2	79.58	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	5.8	5.8	5.79	5.79
Turbidity (NTU)	24.7	25.1	25.5	25.5	25.5	24.8	25.18	-
SS (mg/L)	15.0	12.0	15.0	12.0	12.0	11.0	12.83	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.3	6.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.2	6.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	33.1	33.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	15.0	15.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/8/2009
Weather & Ambient Temperature	Cloudy, 17C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	17:51-17:53							
Water Depth (m)	20.1							
Monitoring Depth (m)	1.0		10.1		19.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.8	21.9	21.9	21.82	-
Salinity (ppt)	34.0	34.0	34.2	34.1	33.5	33.4	33.88	-
pH	8.6	8.5	8.6	8.5	8.5	8.6	8.53	
D.O. Saturation (%)	85.4	85.0	82.3	82.1	80.4	85.8	83.50	-
D.O. (mg/L)	5.4	5.4	5.2	5.2	5.0	5.4	5.27	5.23
Turbidity (NTU)	21.7	22.4	29.2	28.7	29.8	30.4	27.03	-
SS (mg/L)	11.0	10.0	10.0	11.0	11.0	9.0	10.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	18:07-18:08						Northing	Easting
Water Depth (m)	15.9						22.21.619	113.54.581
Monitoring Depth (m)	1.0		8.0		14.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.9	21.9	21.9	21.9	21.86	-
Salinity (ppt)	34.2	34.1	34.2	34.2	34.2	34.2	34.17	-
pH	8.5	8.6	8.6	8.5	8.6	8.5	8.54	
D.O. Saturation (%)	82.7	83.4	83.2	82.1	83.5	82.4	82.88	-
D.O. (mg/L)	5.2	5.3	5.3	5.2	5.3	5.2	5.23	5.23
Turbidity (NTU)	23.4	23.6	24.1	24.5	25.6	25.0	24.37	-
SS (mg/L)	11.0	11.0	12.0	11.0	9.0	10.0	10.67	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	18:21-18:22						Northing	Easting
Water Depth (m)	11.8						22.21.409	113.55.029
Monitoring Depth (m)	1.0		5.9		10.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.7	21.8	21.9	21.9	21.9	21.81	-
Salinity (ppt)	33.8	33.7	34.2	33.4	33.5	33.7	33.69	-
pH	8.5	8.6	8.6	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	82.1	83.7	82.5	78.9	84.4	79.8	81.90	-
D.O. (mg/L)	5.2	5.3	5.2	5.0	5.3	5.0	5.17	5.18
Turbidity (NTU)	24.3	24.3	24.3	24.4	25.7	25.3	24.72	-
SS (mg/L)	11.0	11.0	12.0	12.0	12.0	13.0	11.83	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB1							
Time (hh:mm)	17:13-17:14							
Water Depth (m)	8.4							
Monitoring Depth (m)	1.0		4.2		7.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.71	-
Salinity (ppt)	31.5	31.6	31.6	31.7	32.1	31.8	31.71	-
pH	8.5	8.5	8.4	8.5	8.5	8.4	8.44	
D.O. Saturation (%)	83.3	83.7	83.2	83.8	84.0	85.5	83.92	-
D.O. (mg/L)	5.5	5.5	5.5	5.5	5.5	5.6	5.50	5.56
Turbidity (NTU)	24.7	25.3	24.8	24.8	27.8	28.1	25.92	-
SS (mg/L)	11.0	10.0	9.0	9.0	13.0	10.0	10.33	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB2							
Time (hh:mm)	16:58-16:59							
Water Depth (m)	8.0							
Monitoring Depth (m)	1.0		4.0		7.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.6	21.7	21.7	21.7	21.7	21.7	21.68	-
Salinity (ppt)	31.0	31.1	31.3	31.3	32.0	32.2	31.46	-
pH	8.4	8.5	8.4	8.5	8.4	8.5	8.44	
D.O. Saturation (%)	83.9	84.3	83.0	84.5	83.4	84.4	83.92	-
D.O. (mg/L)	5.5	5.6	5.5	5.6	5.5	5.5	5.52	5.50
Turbidity (NTU)	22.3	22.2	22.5	22.2	23.8	23.2	22.70	-
SS (mg/L)	11.0	13.0	12.0	12.0	13.0	13.0	12.33	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MP							
Time (hh:mm)	17:28-17:29							
Water Depth (m)	4.6							
Monitoring Depth (m)	1.0		2.3		3.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.68	-
Salinity (ppt)	31.3	31.3	31.4	31.3	31.3	31.4	31.30	-
pH	8.5	8.4	8.5	8.4	8.4	8.5	8.44	
D.O. Saturation (%)	84.2	84.0	84.1	84.9	84.9	84.1	84.37	-
D.O. (mg/L)	5.5	5.5	5.5	5.6	5.6	5.5	5.51	5.52
Turbidity (NTU)	22.8	23.2	25.5	24.7	24.7	25.5	24.40	-
SS (mg/L)	12.0	12.0	11.0	11.0	12.0	11.0	11.50	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.2	5.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.3	5.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	35.1	35.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	13.4	13.4	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/8/2009
Weather & Ambient Temperature	Cloudy, 19C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	12:06-12:08							
Water Depth (m)	16.2							
Monitoring Depth (m)	1.0		8.1		15.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	20.9	20.9	20.9	20.9	20.90	-
Salinity (ppt)	33.4	33.4	33.4	33.5	33.4	32.0	33.18	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.63	
D.O. Saturation (%)	88.9	90.5	89.1	88.9	91.7	88.8	89.65	-
D.O. (mg/L)	5.9	6.0	5.9	5.9	6.1	5.9	5.91	5.98
Turbidity (NTU)	22.5	22.4	23.6	23.2	25.4	25.1	23.70	-
SS (mg/L)	11.0	12.0	9.0	10.0	11.0	10.0	10.50	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	12:43-12:44						Northing	Easting
Water Depth (m)	16.7						22.21.631	113.54.564
Monitoring Depth (m)	1.0		8.4		15.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.68	-
Salinity (ppt)	33.7	33.7	33.6	32.3	33.7	33.7	33.44	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.49	
D.O. Saturation (%)	81.1	81.0	81.1	81.0	81.2	81.1	81.08	-
D.O. (mg/L)	5.7	5.7	5.7	5.7	5.7	5.7	5.66	5.66
Turbidity (NTU)	20.9	20.3	21.3	20.8	23.1	23.3	21.62	-
SS (mg/L)	19.0	17.0	15.0	14.0	12.0	10.0	14.50	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	13:47-13:48							
Water Depth (m)	6.8							
Monitoring Depth (m)	1.0		3.4		5.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.8	21.7	21.7	21.7	21.7	21.70	-
Salinity (ppt)	33.5	33.1	33.0	33.5	33.4	33.5	33.33	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.54	
D.O. Saturation (%)	88.0	91.5	92.0	89.7	94.5	90.7	91.07	-
D.O. (mg/L)	6.6	6.8	6.9	6.7	7.0	6.8	6.78	6.90
Turbidity (NTU)	22.6	22.1	22.3	23.3	22.2	25.5	23.00	-
SS (mg/L)	9.0	10.0	10.0	12.0	9.0	10.0	10.00	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	12:29-12:31						Northing	Easting
Water Depth (m)	12.2						22.21.401	113.55.048
Monitoring Depth (m)	1.0		6.1		11.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.69	-
Salinity (ppt)	33.7	33.7	33.6	33.2	33.7	33.7	33.58	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.49	
D.O. Saturation (%)	85.4	85.0	85.4	85.1	85.1	85.5	85.25	-
D.O. (mg/L)	6.0	5.9	6.0	6.0	5.9	6.0	5.95	5.95
Turbidity (NTU)	20.8	19.8	23.8	23.1	23.8	24.3	22.60	-
SS (mg/L)	11.0	13.0	12.0	13.0	12.0	14.0	12.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB1							
Time (hh:mm)	13:16-13:17							
Water Depth (m)	9.0							
Monitoring Depth (m)	1.0		4.5		8.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.0	21.0	21.0	21.0	21.0	21.00	-
Salinity (ppt)	33.4	33.4	33.3	29.7	33.4	33.4	32.76	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.51	
D.O. Saturation (%)	82.4	82.7	83.0	82.8	82.9	82.7	82.75	-
D.O. (mg/L)	5.9	6.0	6.0	6.1	6.0	6.0	5.97	5.96
Turbidity (NTU)	26.0	26.5	25.5	25.1	25.0	24.2	25.38	-
SS (mg/L)	11.0	11.0	9.0	10.0	11.0	9.0	10.17	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MPB2							
Time (hh:mm)	13:29-13:30							
Water Depth (m)	8.8							
Monitoring Depth (m)	1.0		4.4		7.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	21.0	21.0	21.0	21.0	20.98	-
Salinity (ppt)	32.3	33.4	33.4	31.4	33.3	33.4	32.87	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.51	
D.O. Saturation (%)	83.1	83.4	83.8	83.1	83.3	83.9	83.43	-
D.O. (mg/L)	6.0	6.0	6.0	6.1	6.0	6.0	6.02	6.02
Turbidity (NTU)	25.1	25.1	24.8	25.1	27.5	28.3	25.98	-
SS (mg/L)	10.0	11.0	11.0	11.0	11.0	12.0	11.00	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks								

Station	MP							
Time (hh:mm)	12:59-13:01							
Water Depth (m)	4.8							
Monitoring Depth (m)	1.0		2.4		3.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.3	21.4	21.2	21.4	21.3	21.31	-
Salinity (ppt)	33.0	33.0	32.9	32.9	33.0	32.9	32.96	-
pH	8.4	8.4	8.3	8.4	8.4	8.3	8.35	
D.O. Saturation (%)	82.3	82.6	83.3	83.3	82.5	83.3	82.88	-
D.O. (mg/L)	5.9	5.9	6.0	6.0	5.9	6.0	5.95	5.95
Turbidity (NTU)	22.6	23.0	23.4	23.4	22.7	23.4	23.08	-
SS (mg/L)	12.0	12.0	14.0	13.0	13.0	11.0	12.50	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	0.0							
Monitoring Depth (m)	1.0		0.0		-1.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.4	6.4	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.3	6.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	30.4	30.4	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	13.3	13.3	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/9/2009
Weather & Ambient Temperature	Cloudy, 20C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	19:10-19:12							
Water Depth (m)	20.1							
Monitoring Depth (m)	1.0		10.1		19.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.9	21.9	21.9	21.9	21.87	-
Salinity (ppt)	34.4	34.4	34.5	34.5	33.8	33.9	34.24	-
pH	8.6	8.6	8.6	8.6	8.6	8.5	8.57	
D.O. Saturation (%)	75.1	75.5	72.4	72.2	75.9	70.5	73.60	-
D.O. (mg/L)	4.9	4.9	4.7	4.7	4.9	4.6	4.79	4.75
Turbidity (NTU)	13.6	12.9	20.4	19.9	21.6	21.0	18.23	-
SS (mg/L)	8.0	7.0	9.0	7.0	7.0	6.0	7.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	19:26-19:27						Northing	Easting
Water Depth (m)	16.0						22.21.551	113.54.491
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.9	21.9	21.9	21.9	21.9	21.9	21.91	-
Salinity (ppt)	34.5	34.5	34.5	34.5	34.6	34.6	34.53	-
pH	8.6	8.6	8.6	8.6	8.5	8.6	8.58	
D.O. Saturation (%)	73.5	72.8	73.3	72.2	72.5	73.6	72.98	-
D.O. (mg/L)	4.8	4.7	4.8	4.7	4.7	4.8	4.75	4.75
Turbidity (NTU)	14.8	14.6	15.3	15.7	16.2	16.8	15.57	-
SS (mg/L)	7.0	8.0	7.0	8.0	10.0	8.0	8.00	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	19:40-19:41						Northing	Easting
Water Depth (m)	11.9						22.21.322	113.55.019
Monitoring Depth (m)	1.0		6.0		10.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.9	21.9	21.9	21.9	21.86	-
Salinity (ppt)	34.0	34.1	33.7	34.5	34.1	33.9	34.05	-
pH	8.6	8.6	8.5	8.6	8.5	8.6	8.57	
D.O. Saturation (%)	73.8	72.2	72.3	72.6	73.2	74.5	73.10	-
D.O. (mg/L)	4.8	4.7	4.6	4.7	4.7	4.8	4.74	4.78
Turbidity (NTU)	15.5	15.5	15.6	15.5	16.5	16.9	15.92	-
SS (mg/L)	6.0	8.0	9.0	7.0	7.0	7.0	7.33	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	18:37-18:38							
Water Depth (m)	8.1							
Monitoring Depth (m)	1.0		4.1		7.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.8	21.8	21.8	21.7	21.76	-
Salinity (ppt)	31.9	31.9	32.0	32.0	32.4	32.2	32.07	-
pH	8.5	8.5	8.5	8.5	8.5	8.4	8.48	
D.O. Saturation (%)	73.4	73.8	73.9	73.3	74.1	75.6	74.02	-
D.O. (mg/L)	5.0	5.0	5.0	5.0	5.0	5.1	5.02	5.08
Turbidity (NTU)	20.0	20.6	20.1	20.1	23.1	23.4	21.22	-
SS (mg/L)	6.0	8.0	8.0	10.0	8.0	7.0	7.83	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	17:58-17:59							
Water Depth (m)	8.2							
Monitoring Depth (m)	1.0		4.1		7.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.8	21.7	21.7	21.8	21.73	-
Salinity (ppt)	31.3	31.4	31.6	31.6	32.6	32.4	31.82	-
pH	8.5	8.5	8.5	8.5	8.5	8.4	8.48	
D.O. Saturation (%)	74.0	74.4	74.6	73.1	74.5	73.5	74.02	-
D.O. (mg/L)	5.1	5.1	5.1	5.0	5.1	5.0	5.04	5.02
Turbidity (NTU)	17.6	17.5	17.5	17.8	18.5	19.1	18.00	-
SS (mg/L)	8.0	8.0	6.0	7.0	9.0	9.0	7.83	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	18:47-18:48							
Water Depth (m)	4.7							
Monitoring Depth (m)	1.0		2.3		3.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.7	21.7	21.7	21.73	-
Salinity (ppt)	31.7	31.6	31.6	31.7	31.6	31.7	31.66	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.48	
D.O. Saturation (%)	74.3	74.1	75.0	74.2	75.0	74.2	74.47	-
D.O. (mg/L)	5.0	5.0	5.1	5.0	5.1	5.0	5.03	5.04
Turbidity (NTU)	18.1	18.5	20.0	20.8	20.0	20.8	19.70	-
SS (mg/L)	8.0	8.0	7.0	9.0	7.0	8.0	7.83	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	4.8	4.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	4.8	4.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	23.7	23.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	9.5	9.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/9/2009
Weather & Ambient Temperature	Cloudy, 21C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	13:05-13:08							
Water Depth (m)	16.1							
Monitoring Depth (m)	1.0		8.1		15.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	20.9	21.0	20.9	20.9	20.95	-
Salinity (ppt)	33.8	33.7	33.9	33.8	33.7	32.3	33.54	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.67	
D.O. Saturation (%)	80.6	79.0	79.0	79.2	81.8	78.9	79.75	-
D.O. (mg/L)	5.5	5.4	5.4	5.4	5.6	5.4	5.43	5.50
Turbidity (NTU)	13.6	13.7	14.4	14.8	16.6	16.3	14.90	-
SS (mg/L)	12.0	12.0	9.0	8.0	16.0	12.0	11.50	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	14:28-14:29							
Water Depth (m)	7.0							
Monitoring Depth (m)	1.0		3.5		6.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.8	21.8	21.7	21.7	21.7	21.7	21.75	-
Salinity (ppt)	33.4	33.9	33.4	33.9	33.8	33.8	33.69	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.58	
D.O. Saturation (%)	81.6	78.1	82.1	79.8	84.6	80.8	81.17	-
D.O. (mg/L)	6.3	6.1	6.4	6.2	6.6	6.3	6.30	6.42
Turbidity (NTU)	13.3	13.8	13.5	14.5	13.4	16.7	14.20	-
SS (mg/L)	10.0	10.0	6.0	6.0	8.0	9.0	8.17	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	13:38-13:39						Northing	Easting
Water Depth (m)	16.7						22.21.541	113.54.486
Monitoring Depth (m)	1.0		8.4		15.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.7	21.8	21.8	21.8	21.73	-
Salinity (ppt)	34.0	34.0	34.0	32.6	34.1	34.1	33.80	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	71.1	71.2	71.2	71.1	71.3	71.2	71.18	-
D.O. (mg/L)	5.2	5.2	5.2	5.2	5.2	5.2	5.18	5.18
Turbidity (NTU)	11.5	12.1	12.5	12.0	14.3	14.5	12.82	-
SS (mg/L)	10.0	8.0	12.0	14.0	11.0	10.0	10.83	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	13:27-13:28						Northing	Easting
Water Depth (m)	12.4						22.21.341	113.55.021
Monitoring Depth (m)	1.0		6.2		11.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.7	21.8	21.7	21.8	21.8	21.74	-
Salinity (ppt)	34.0	34.0	34.0	33.6	34.1	34.0	33.94	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	75.5	75.1	75.5	75.2	75.2	75.6	75.35	-
D.O. (mg/L)	5.5	5.5	5.5	5.5	5.5	5.5	5.47	5.47
Turbidity (NTU)	12.0	11.0	15.0	14.3	15.0	15.5	13.80	-
SS (mg/L)	11.0	9.0	9.0	10.0	12.0	10.0	10.17	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	14:03-14:04							
Water Depth (m)	8.8							
Monitoring Depth (m)	1.0		4.4		7.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.0	21.0	21.0	21.0	21.0	21.05	-
Salinity (ppt)	33.7	33.7	33.7	30.1	33.8	33.8	33.12	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.55	
D.O. Saturation (%)	72.5	72.8	73.1	72.9	73.0	72.8	72.85	-
D.O. (mg/L)	5.4	5.5	5.5	5.6	5.5	5.5	5.49	5.48
Turbidity (NTU)	21.3	21.8	20.8	20.4	20.3	19.5	20.68	-
SS (mg/L)	14.0	12.0	10.0	11.0	10.0	9.0	11.00	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	14:13-14:14							
Water Depth (m)	9.0							
Monitoring Depth (m)	1.0		4.5		8.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.0	21.0	21.0	21.0	21.0	21.03	-
Salinity (ppt)	32.6	33.7	33.8	31.8	33.7	33.8	33.23	-
pH	8.6	8.6	8.5	8.6	8.6	8.5	8.55	
D.O. Saturation (%)	73.2	73.5	73.9	73.2	73.4	74.0	73.53	-
D.O. (mg/L)	5.5	5.5	5.6	5.6	5.5	5.6	5.54	5.54
Turbidity (NTU)	20.4	20.4	20.1	20.4	22.8	23.6	21.28	-
SS (mg/L)	9.0	7.0	8.0	8.0	8.0	9.0	8.17	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	13:48-13:50							
Water Depth (m)	4.9							
Monitoring Depth (m)	1.0		2.5		3.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.4	21.4	21.3	21.4	21.3	21.36	-
Salinity (ppt)	33.4	33.4	33.3	33.3	33.3	33.3	33.32	-
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.39	
D.O. Saturation (%)	72.7	72.4	73.4	73.4	72.6	73.4	72.98	-
D.O. (mg/L)	5.5	5.4	5.5	5.5	5.4	5.5	5.47	5.47
Turbidity (NTU)	18.3	17.9	18.7	18.7	18.0	18.7	18.38	-
SS (mg/L)	14.0	14.0	9.0	8.0	8.0	9.0	10.33	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.0	6.0	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	18.9	18.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	12.8	12.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/10/2009
Weather & Ambient Temperature	Cloudy, 18C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	7:20-7:21							
Water Depth (m)	20.2							
Monitoring Depth (m)	1.0		10.1		19.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.0	21.0	21.2	21.1	21.2	21.1	21.09	-
Salinity (ppt)	31.2	32.5	34.3	34.5	34.5	34.5	33.59	-
pH	8.5	8.6	8.6	8.6	8.6	8.5	8.56	
D.O. Saturation (%)	94.1	93.6	91.3	94.0	91.8	97.3	93.68	-
D.O. (mg/L)	6.2	6.1	5.9	6.1	5.9	6.3	6.08	6.11
Turbidity (NTU)	11.7	11.1	11.6	12.1	14.1	13.9	12.42	-
SS (mg/L)	8.0	9.0	11.0	9.0	9.0	10.0	9.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	6:58-7:00						Northing	Easting
Water Depth (m)	15.4						22.21.643	113.54.461
Monitoring Depth (m)	1.0		7.7		14.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.3	21.0	20.9	20.9	21.05	-
Salinity (ppt)	34.8	31.0	34.6	34.7	32.8	33.1	33.49	-
pH	8.6	8.6	8.6	8.6	8.5	8.6	8.60	
D.O. Saturation (%)	91.5	91.1	91.9	92.4	101.1	98.1	94.35	-
D.O. (mg/L)	5.9	6.0	5.9	6.0	6.6	6.4	6.13	6.52
Turbidity (NTU)	10.6	11.6	13.9	14.6	15.1	14.6	13.40	-
SS (mg/L)	9.0	8.0	7.0	7.0	9.0	8.0	8.00	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	6:49-6:51						Northing	Easting
Water Depth (m)	13.4						22.21.296	113.54.915
Monitoring Depth (m)	1.0		6.7		12.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.5	21.2	21.7	21.7	20.9	20.7	21.28	-
Salinity (ppt)	35.0	35.0	34.7	34.8	33.3	33.1	34.32	-
pH	8.7	8.6	8.6	8.6	8.6	8.6	8.61	
D.O. Saturation (%)	93.9	98.8	97.1	95.3	101.3	98.7	97.52	-
D.O. (mg/L)	6.3	6.7	6.5	6.4	7.0	6.8	6.62	6.89
Turbidity (NTU)	13.2	13.3	14.4	14.0	16.2	15.9	14.50	-
SS (mg/L)	8.0	10.0	9.0	8.0	9.0	9.0	8.83	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	7:56-7:57							
Water Depth (m)	9.1							
Monitoring Depth (m)	1.0		4.6		8.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.8	20.9	21.0	21.0	20.9	20.9	20.92	-
Salinity (ppt)	32.7	32.1	33.4	33.7	33.6	34.0	33.24	-
pH	8.5	8.6	8.6	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	96.9	95.3	95.5	93.7	95.3	97.7	95.73	-
D.O. (mg/L)	6.4	6.3	6.2	6.2	6.2	6.5	6.29	6.34
Turbidity (NTU)	16.7	16.8	15.9	16.3	15.0	15.8	16.08	-
SS (mg/L)	9.0	9.0	8.0	10.0	12.0	10.0	9.67	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	8:06-8:07							
Water Depth (m)	8.9							
Monitoring Depth (m)	1.0		4.5		7.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.9	20.9	20.9	20.9	20.9	21.0	20.90	-
Salinity (ppt)	33.8	32.3	33.7	33.8	33.6	33.7	33.49	-
pH	8.6	8.6	8.5	8.6	8.5	8.6	8.55	
D.O. Saturation (%)	94.4	93.7	93.9	93.6	93.7	93.1	93.73	-
D.O. (mg/L)	6.1	6.1	6.1	6.1	6.1	6.0	6.10	6.07
Turbidity (NTU)	15.9	15.9	15.6	15.9	16.3	16.6	16.03	-
SS (mg/L)	9.0	11.0	9.0	10.0	11.0	10.0	10.00	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	7:40-7:43							
Water Depth (m)	5.3							
Monitoring Depth (m)	1.0		2.6		4.3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.8	20.8	20.8	20.8	20.9	20.9	20.84	-
Salinity (ppt)	32.9	33.1	33.1	33.3	33.2	33.3	33.13	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.53	
D.O. Saturation (%)	92.6	92.7	91.3	92.6	91.9	93.2	92.38	-
D.O. (mg/L)	6.1	6.1	6.0	6.1	6.0	6.1	6.03	6.03
Turbidity (NTU)	13.4	13.8	14.2	14.2	13.5	14.2	13.88	-
SS (mg/L)	10.0	9.0	9.0	8.0	10.0	9.0	9.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	6.1	6.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.1	6.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	16.1	16.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	12.1	12.1	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/10/2009
Weather & Ambient Temperature	Fine, 23C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	14:21-14:22							
Water Depth (m)	16.0							
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.5	20.4	20.6	20.6	20.6	20.6	20.56	-
Salinity (ppt)	34.3	34.7	35.4	35.4	35.5	35.5	35.12	-
pH	8.7	8.6	8.6	8.7	8.6	8.6	8.63	
D.O. Saturation (%)	88.1	86.9	85.4	87.7	88.9	86.0	87.17	-
D.O. (mg/L)	5.6	5.5	5.4	5.5	5.6	5.4	5.50	5.51
Turbidity (NTU)	15.1	15.1	15.2	15.1	16.5	16.1	15.52	-
SS (mg/L)	10.0	10.0	10.0	10.0	9.0	10.0	9.83	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	12:48-12:49							
Water Depth (m)	6.7							
Monitoring Depth (m)	1.0		3.4		5.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.5	20.5	20.5	20.5	20.5	20.5	20.50	-
Salinity (ppt)	32.7	32.5	32.7	32.8	32.8	32.8	32.71	-
pH	8.6	8.6	8.6	8.6	8.6	8.6	8.57	
D.O. Saturation (%)	92.3	92.7	92.9	92.8	91.5	93.2	92.57	-
D.O. (mg/L)	6.3	6.4	6.4	6.4	6.3	6.4	6.36	6.34
Turbidity (NTU)	12.9	13.4	14.1	13.1	13.3	13.0	13.30	-
SS (mg/L)	8.0	8.0	8.0	9.0	10.0	8.0	8.50	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO5						Co-ordinates	
Time (hh:mm)	13:44-13:46						Northing	Easting
Water Depth (m)	16.2						22.21.649	113.54.502
Monitoring Depth (m)	1.0		8.1		15.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.6	20.6	20.7	20.6	20.7	20.7	20.64	-
Salinity (ppt)	35.2	35.1	35.3	35.2	35.6	35.7	35.35	-
pH	8.7	8.6	8.7	8.6	8.7	8.6	8.64	
D.O. Saturation (%)	90.3	89.9	87.2	87.0	90.7	85.3	88.40	-
D.O. (mg/L)	5.7	5.6	5.4	5.4	5.7	5.3	5.51	5.47
Turbidity (NTU)	10.4	11.1	13.7	13.2	14.9	14.3	12.93	-
SS (mg/L)	13.0	12.0	8.0	7.0	9.0	8.0	9.50	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	13:56-13:57						Northing	Easting
Water Depth (m)	14.1						22.21.299	113.54.902
Monitoring Depth (m)	1.0		7.1		13.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.7	20.7	20.7	20.7	20.7	20.7	20.68	-
Salinity (ppt)	35.3	35.3	35.3	35.3	35.3	35.3	35.31	-
pH	8.6	8.7	8.6	8.7	8.7	8.6	8.65	
D.O. Saturation (%)	84.3	85.0	83.7	84.8	85.1	84.0	84.48	-
D.O. (mg/L)	5.3	5.4	5.3	5.3	5.3	5.3	5.31	5.31
Turbidity (NTU)	14.2	14.4	15.3	14.9	16.4	15.8	15.17	-
SS (mg/L)	8.0	10.0	8.0	8.0	9.0	11.0	9.00	-
Remarks	Dredger was in operation.							

Station	MPB1							
Time (hh:mm)	13:15-13:16							
Water Depth (m)	9.4							
Monitoring Depth (m)	1.0		4.7		8.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.5	20.5	20.5	20.6	20.5	20.5	20.53	-
Salinity (ppt)	32.7	32.6	32.8	32.8	33.2	33.0	32.85	-
pH	8.6	8.6	8.6	8.6	8.6	8.5	8.55	
D.O. Saturation (%)	88.6	88.2	88.1	88.7	88.9	90.4	88.82	-
D.O. (mg/L)	5.7	5.7	5.7	5.7	5.7	5.9	5.74	5.80
Turbidity (NTU)	16.1	15.5	15.6	15.6	16.7	16.8	16.05	-
SS (mg/L)	10.0	9.0	9.0	8.0	9.0	7.0	8.67	-
Remarks	Dredger was in operation.							

Station	MPB2							
Time (hh:mm)	13:04-13:05							
Water Depth (m)	9.5							
Monitoring Depth (m)	1.0		4.8		8.5			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.4	20.5	20.5	20.5	20.5	20.5	20.50	-
Salinity (ppt)	32.1	32.2	32.4	32.4	33.2	33.4	32.60	-
pH	8.6	8.6	8.6	8.5	8.5	8.6	8.55	
D.O. Saturation (%)	88.8	89.2	89.4	87.9	88.3	89.3	88.82	-
D.O. (mg/L)	5.8	5.8	5.8	5.7	5.7	5.8	5.76	5.74
Turbidity (NTU)	13.1	13.0	13.0	13.3	14.6	14.0	13.50	-
SS (mg/L)	9.0	11.0	7.0	8.0	9.0	9.0	8.83	-
Remarks	Dredger was in operation.							

Station	MP							
Time (hh:mm)	13:26-13:28							
Water Depth (m)	5.6							
Monitoring Depth (m)	1.0		2.8		4.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.5	20.5	20.5	20.6	20.5	20.5	20.52	-
Salinity (ppt)	32.4	32.4	32.4	32.5	32.5	32.4	32.44	-
pH	8.6	8.6	8.5	8.5	8.6	8.5	8.55	
D.O. Saturation (%)	87.4	87.2	87.9	87.0	87.3	88.1	87.48	-
D.O. (mg/L)	5.7	5.6	5.7	5.6	5.7	5.7	5.67	5.68
Turbidity (NTU)	13.6	14.0	15.5	16.3	16.3	15.5	15.20	-
SS (mg/L)	8.0	9.0	7.0	9.0	8.0	7.0	8.00	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	18.7	18.7	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	11.9	11.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/11/2009
Weather & Ambient Temperature	Sunny, 22C

Mid-Ebb

Station	C2 (NM5)							
Time (hh:mm)	8:27-8:29							
Water Depth (m)	20.0							
Monitoring Depth (m)	1.0		10.0		19.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.2	21.2	21.4	21.3	21.3	21.4	21.32	-
Salinity (ppt)	32.9	31.6	34.6	34.9	34.9	34.9	33.95	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.69	
D.O. Saturation (%)	90.3	90.8	88.0	90.7	94.0	88.5	90.38	-
D.O. (mg/L)	6.0	6.0	5.7	5.9	6.1	5.8	5.92	5.95
Turbidity (NTU)	9.4	10.0	9.9	10.4	12.2	12.4	10.72	-
SS (mg/L)	9.0	11.0	7.0	9.0	6.0	8.0	8.33	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	8:06-8:07						Northing	Easting
Water Depth (m)	15.9						22.21.657	113.54.442
Monitoring Depth (m)	1.0		8.0		14.9			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.4	21.3	21.5	21.3	21.2	21.1	21.28	-
Salinity (ppt)	35.1	31.4	34.9	35.0	33.4	33.2	33.85	-
pH	8.8	8.7	8.8	8.7	8.7	8.6	8.73	
D.O. Saturation (%)	88.2	87.8	88.6	89.1	94.8	97.8	91.05	-
D.O. (mg/L)	5.7	5.8	5.8	5.8	6.3	6.5	5.97	6.36
Turbidity (NTU)	8.9	9.9	12.2	12.9	12.9	13.4	11.70	-
SS (mg/L)	9.0	8.0	8.0	9.0	8.0	7.0	8.17	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	IMO6						Co-ordinates	
Time (hh:mm)	7:56-7:58						Northing	Easting
Water Depth (m)	12.3						22.21.191	113.54.807
Monitoring Depth (m)	1.0		6.2		11.3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.7	21.4	21.9	21.9	21.0	21.1	21.51	-
Salinity (ppt)	35.3	35.4	35.1	35.2	33.5	33.7	34.68	-
pH	8.8	8.8	8.7	8.8	8.7	8.7	8.74	
D.O. Saturation (%)	90.6	95.5	93.8	92.0	95.4	98.0	94.22	-
D.O. (mg/L)	6.2	6.5	6.4	6.3	6.7	6.8	6.46	6.73
Turbidity (NTU)	11.5	11.6	12.7	12.3	14.2	14.5	12.80	-
SS (mg/L)	10.0	8.0	8.0	10.0	9.0	7.0	8.67	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	9:03-9:04							
Water Depth (m)	8.6							
Monitoring Depth (m)	1.0		4.3		7.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.2	21.2	21.2	21.2	21.15	-
Salinity (ppt)	33.1	32.4	34.1	33.7	34.0	34.4	33.60	-
pH	8.7	8.7	8.7	8.7	8.7	8.6	8.66	
D.O. Saturation (%)	93.6	92.0	90.4	92.2	92.0	94.4	92.43	-
D.O. (mg/L)	6.2	6.1	6.1	6.1	6.0	6.3	6.13	6.18
Turbidity (NTU)	15.0	15.1	14.6	14.2	13.3	14.1	14.38	-
SS (mg/L)	8.0	6.0	8.0	6.0	8.0	10.0	7.67	-
Remarks	Dredger was in operation.							

Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	9:14-9:15							
Water Depth (m)	8.2							
Monitoring Depth (m)	1.0		4.1		7.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.2	21.1	21.1	21.2	21.13	-
Salinity (ppt)	32.6	34.2	34.1	34.1	34.0	34.1	33.85	-
pH	8.7	8.7	8.7	8.7	8.6	8.7	8.68	
D.O. Saturation (%)	90.4	91.1	90.3	90.6	90.4	89.8	90.43	-
D.O. (mg/L)	6.0	6.0	5.9	5.9	5.9	5.9	5.94	5.91
Turbidity (NTU)	14.2	14.2	14.2	13.9	14.6	14.9	14.33	-
SS (mg/L)	7.0	6.0	8.0	8.0	8.0	8.0	7.50	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	8:48-8:50							
Water Depth (m)	5.1							
Monitoring Depth (m)	1.0		2.5		4.1			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	21.1	21.1	21.1	21.1	21.1	21.1	21.07	-
Salinity (ppt)	33.2	33.4	33.6	33.5	33.5	33.7	33.49	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.66	
D.O. Saturation (%)	89.3	89.4	89.3	88.0	88.6	89.9	89.08	-
D.O. (mg/L)	5.9	5.9	5.9	5.8	5.8	5.9	5.87	5.87
Turbidity (NTU)	11.7	12.1	12.5	12.5	11.8	12.5	12.18	-
SS (mg/L)	8.0	8.0	7.0	8.0	10.0	8.0	8.17	-
Remarks	Dredger was in operation.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.9	5.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	13.9	13.9	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	10.8	10.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/11/2009
Weather & Ambient Temperature	Fine, 24C

Mid-Flood

Station	C1 (NM3)							
Time (hh:mm)	15:28-15:30							
Water Depth (m)	16.0							
Monitoring Depth (m)	1.0		8.0		15.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.7	20.7	20.8	20.9	20.9	20.9	20.79	-
Salinity (ppt)	34.6	35.1	35.7	35.8	35.8	35.8	35.48	-
pH	8.8	8.8	8.8	8.7	8.8	8.7	8.76	
D.O. Saturation (%)	84.8	83.6	84.4	82.1	85.6	82.7	83.87	-
D.O. (mg/L)	5.4	5.3	5.4	5.2	5.4	5.3	5.34	5.35
Turbidity (NTU)	13.4	13.4	13.4	13.5	14.8	14.4	13.82	-
SS (mg/L)	6.0	7.0	7.0	9.0	10.0	9.0	8.00	-
Remarks	Dredger was in operation.							

Station	IMO5						Co-ordinates	
Time (hh:mm)	14:51-14:54						Northing	Easting
Water Depth (m)	16.3						22.21.648	113.54.431
Monitoring Depth (m)	1.0		8.2		15.3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.8	20.8	20.9	20.9	20.9	20.9	20.87	-
Salinity (ppt)	35.5	35.5	35.7	35.6	35.9	36.0	35.71	-
pH	8.8	8.8	8.8	8.8	8.8	8.7	8.77	
D.O. Saturation (%)	87.0	86.6	83.9	83.7	87.4	82.0	85.10	-
D.O. (mg/L)	5.5	5.5	5.3	5.3	5.5	5.1	5.35	5.31
Turbidity (NTU)	8.7	9.4	12.0	11.5	13.2	12.6	11.23	-
SS (mg/L)	8.0	9.0	10.0	9.0	10.0	8.0	9.00	-
Remarks	Dredger was in operation.							

Station	C3 (NM6)							
Time (hh:mm)	13:55-13:56							
Water Depth (m)	7.0							
Monitoring Depth (m)	1.0		3.5		6.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.7	20.7	20.7	20.7	20.8	20.7	20.73	-
Salinity (ppt)	33.1	32.9	33.1	33.2	33.1	33.2	33.07	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.70	
D.O. Saturation (%)	89.0	89.4	89.6	89.5	88.2	89.9	89.27	-
D.O. (mg/L)	6.2	6.2	6.2	6.2	6.1	6.2	6.20	6.18
Turbidity (NTU)	11.2	11.7	12.4	11.4	11.6	11.3	11.60	-
SS (mg/L)	8.0	7.0	7.0	9.0	8.0	7.0	7.67	-
Remarks	Dredger was in operation.							

Station	IMO6						Co-ordinates	
Time (hh:mm)	15:03-15:04						Northing	Easting
Water Depth (m)	13.0						22.21.190	113.54.722
Monitoring Depth (m)	1.0		6.5		12.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.9	20.9	20.9	20.9	20.9	20.9	20.91	-
Salinity (ppt)	35.7	35.6	35.7	35.7	35.7	35.7	35.67	-
pH	8.8	8.8	8.8	8.8	8.8	8.7	8.78	
D.O. Saturation (%)	81.0	81.7	80.4	81.5	81.8	80.7	81.18	-
D.O. (mg/L)	5.1	5.2	5.1	5.2	5.2	5.1	5.15	5.15
Turbidity (NTU)	12.5	12.7	13.6	13.2	14.7	14.1	13.47	-
SS (mg/L)	8.0	7.0	6.0	8.0	7.0	6.0	7.00	-
Remarks	Dredger was in operation.							

Station	IMO1						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB1							
Time (hh:mm)	14:22-14:23							
Water Depth (m)	9.4							
Monitoring Depth (m)	1.0		4.7		8.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.8	20.8	20.8	20.8	20.7	20.8	20.76	-
Salinity (ppt)	33.1	33.0	33.1	33.2	33.3	33.6	33.21	-
pH	8.7	8.7	8.7	8.7	8.6	8.7	8.68	
D.O. Saturation (%)	85.3	84.9	84.8	85.4	87.1	85.6	85.52	-
D.O. (mg/L)	5.6	5.6	5.5	5.6	5.7	5.6	5.58	5.64
Turbidity (NTU)	14.4	13.8	13.9	13.9	15.1	15.0	14.35	-
SS (mg/L)	8.0	8.0	9.0	7.0	13.0	11.0	9.33	-
Remarks	Dredger was in operation.							

Station	IMO2						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MPB2							
Time (hh:mm)	14:11-14:12							
Water Depth (m)	9.2							
Monitoring Depth (m)	1.0		4.6		8.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.7	20.7	20.8	20.7	20.8	20.7	20.73	-
Salinity (ppt)	32.5	32.6	32.8	32.8	33.5	33.7	32.96	-
pH	8.7	8.7	8.7	8.7	8.6	8.7	8.68	
D.O. Saturation (%)	85.5	85.9	86.1	84.6	85.0	86.0	85.52	-
D.O. (mg/L)	5.6	5.6	5.6	5.5	5.5	5.6	5.60	5.58
Turbidity (NTU)	11.4	11.3	11.3	11.6	12.9	12.3	11.80	-
SS (mg/L)	9.0	9.0	10.0	10.0	8.0	9.0	9.17	-
Remarks	Dredger was in operation.							

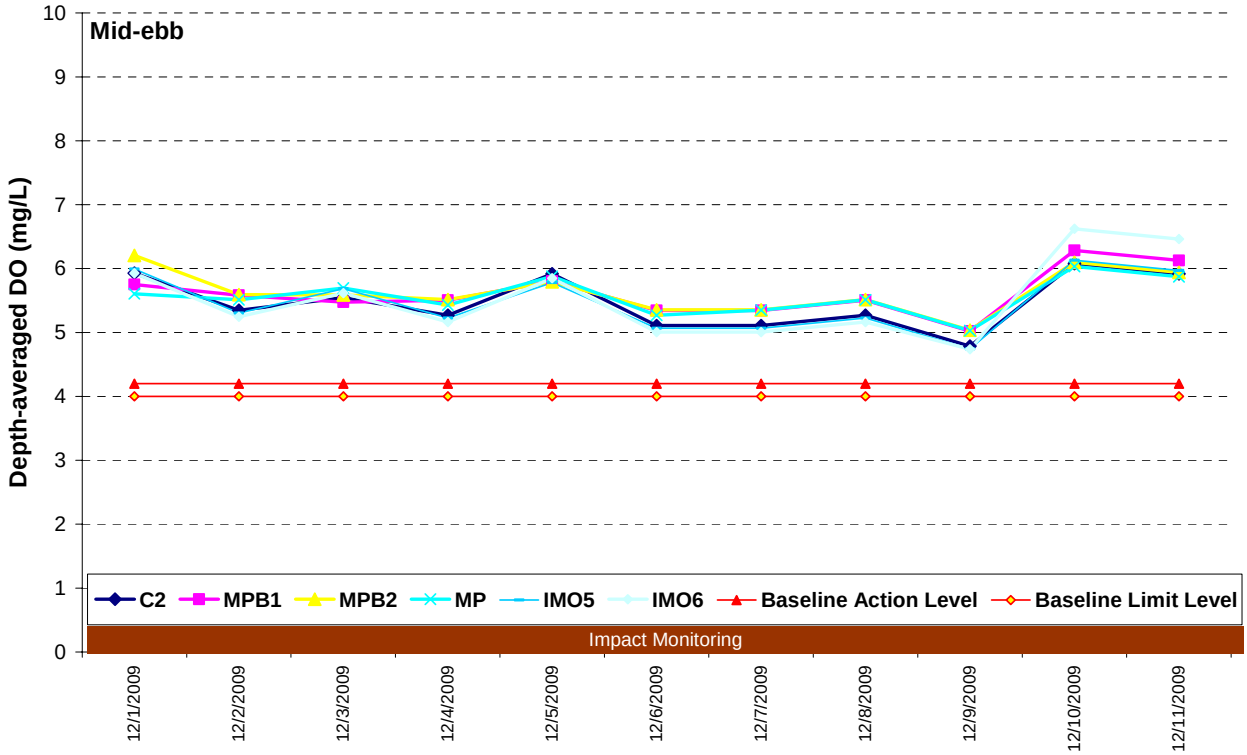
Station	IMO3						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Station	MP							
Time (hh:mm)	14:34-14:36							
Water Depth (m)	5.4							
Monitoring Depth (m)	1.0		2.7		4.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	20.7	20.7	20.7	20.8	20.7	20.7	20.75	-
Salinity (ppt)	32.8	32.8	32.8	32.8	32.9	32.8	32.80	-
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.68	
D.O. Saturation (%)	83.9	84.1	84.6	83.7	84.0	84.8	84.18	-
D.O. (mg/L)	5.5	5.5	5.6	5.5	5.5	5.6	5.51	5.52
Turbidity (NTU)	12.3	11.9	13.8	14.6	14.6	13.8	13.50	-
SS (mg/L)	7.0	9.0	9.0	9.0	9.0	9.0	8.67	-
Remarks	Dredger was in operation.							

Station	IMO4						Co-ordinates	
Time (hh:mm)							Northing	Easting
Water Depth (m)	-							
Monitoring Depth (m)	-		-		-			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	*Depth-averaged*	*Bottom*
Water Temperature (℃)	-	-	-	-	-	-	-	-
Salinity (ppt)	-	-	-	-	-	-	-	-
pH	-	-	-	-	-	-	-	-
D.O. Saturation (%)	-	-	-	-	-	-	-	-
D.O. (mg/L)	-	-	-	-	-	-	-	-
Turbidity (NTU)	-	-	-	-	-	-	-	-
SS (mg/L)								
Remarks								

Compliance with Action and Limit Level

Parameter	As in EM&A		C1 & C3 Mean		IMO1		IMO2		IMO3		IMO4		IMO5		IMO6		MPB1		MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Bottom)	3.3	2.5	5.8	5.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.8	5.8	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	16.5	16.5	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	10.2	10.2	-	-	-	-	-	-	-	-	N	N	N	N	N	N	N	N	N	N



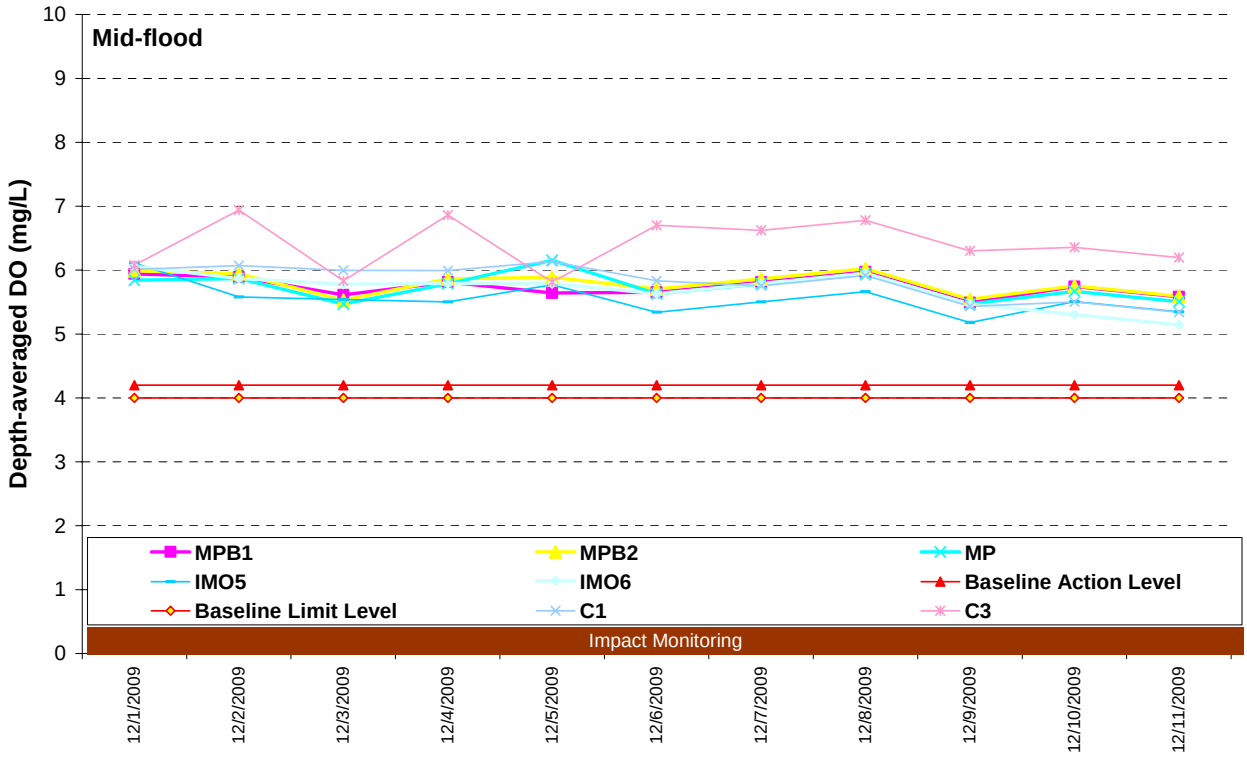


Figure G1 Dissolved oxygen concentration (depth-averaged) (mg/L) of water samples at mid-ebb and mid-flood between 1 and 11 December 2009

Ref: 0018105_Annex G_water graphs.doc

ERM

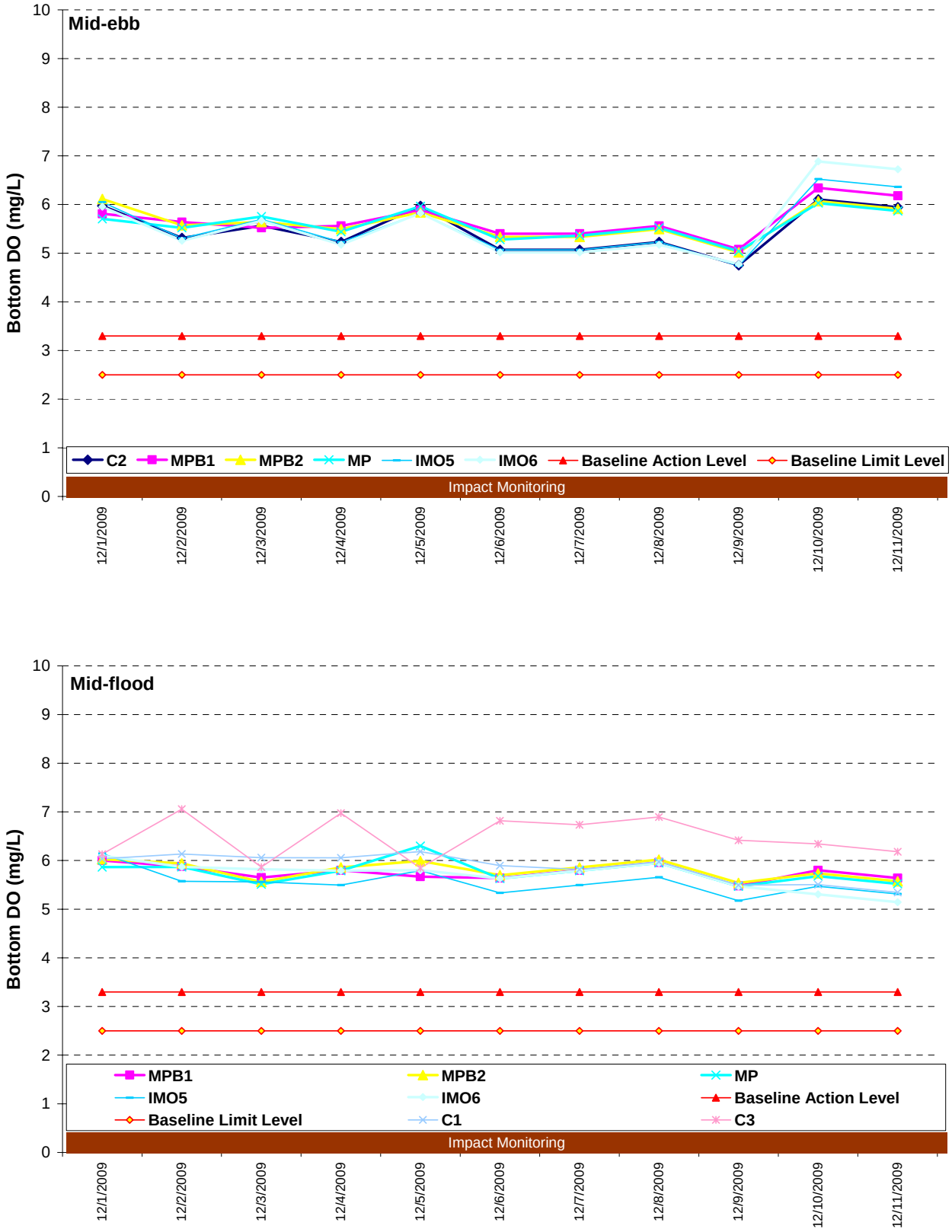


Figure G2 Dissolved oxygen concentration (bottom) (mg/L) of water samples at mid-ebb and mid-flood between 1 and 11 December 2009

Ref: 0018105_Annex G_water graphs.doc

ERM

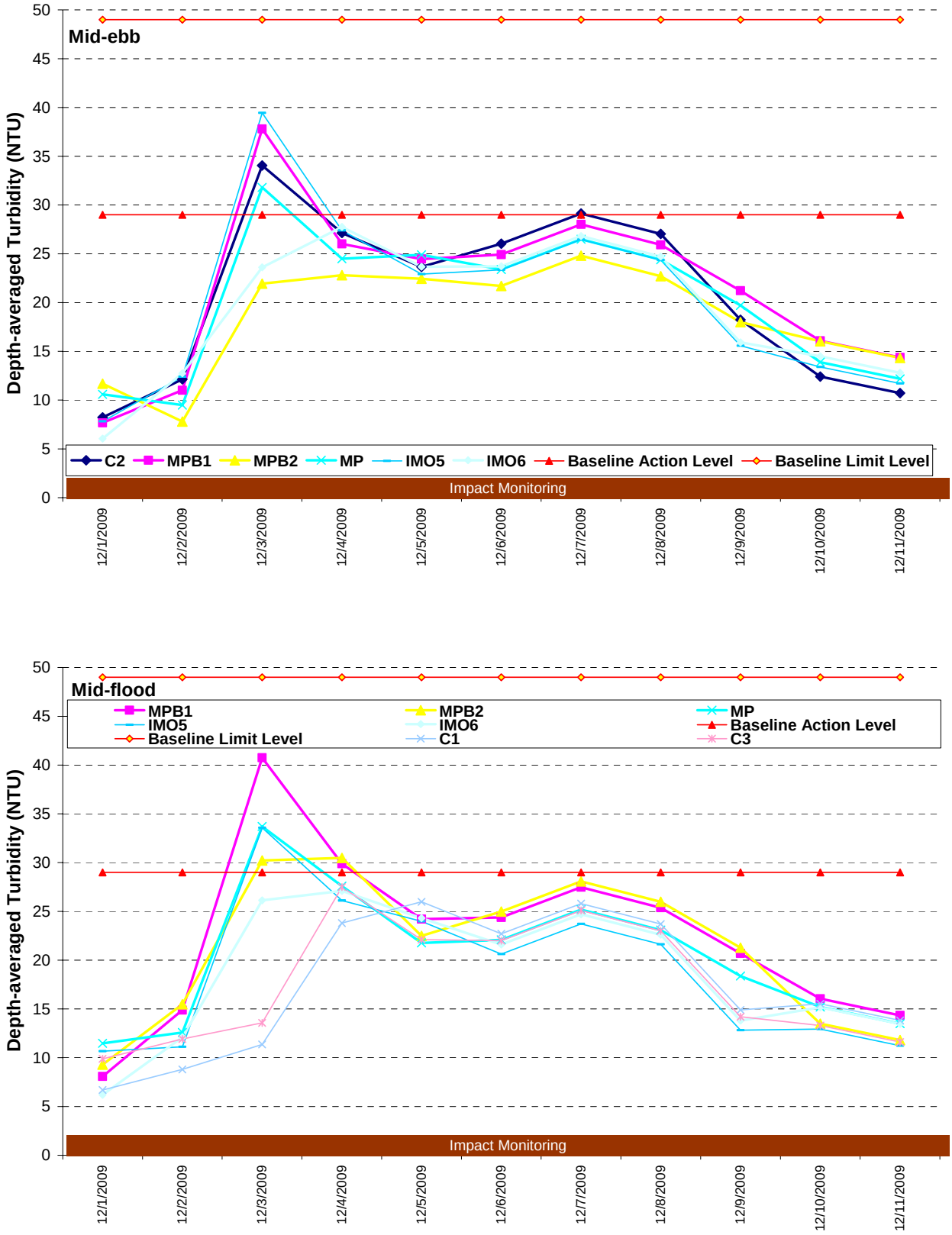
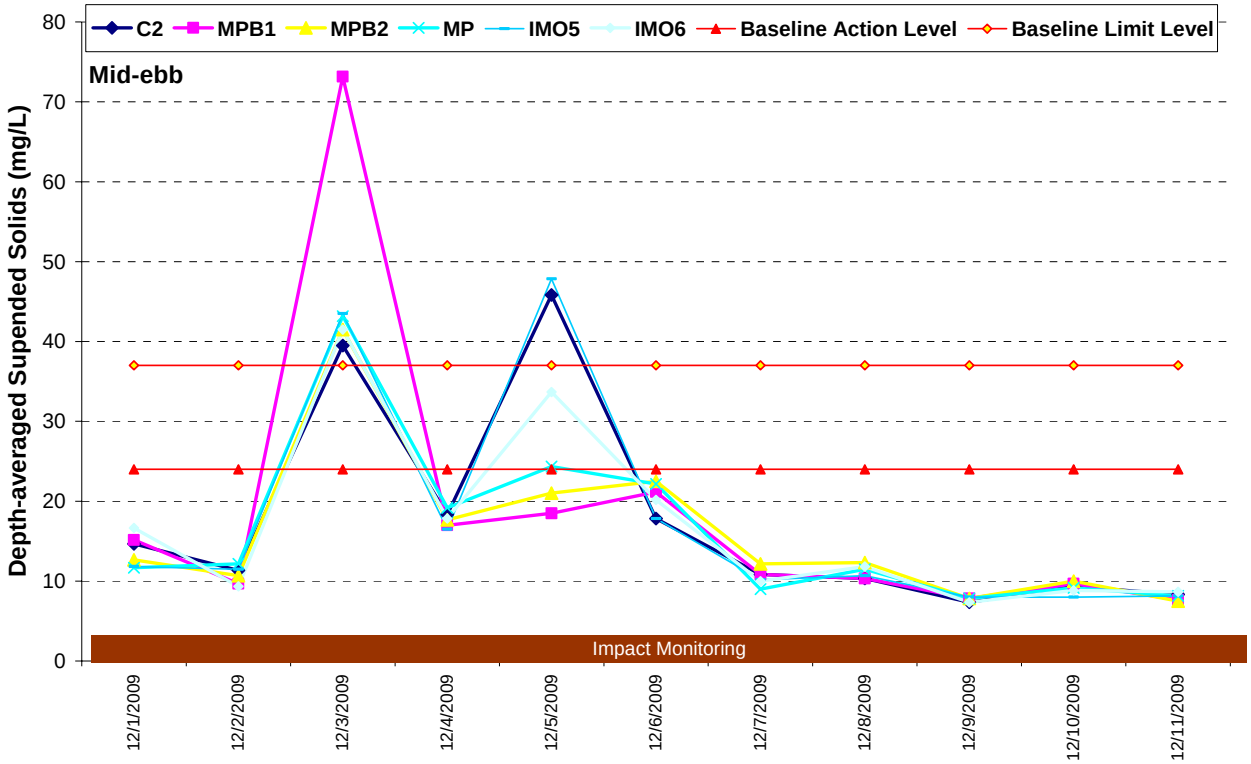


Figure G3 Depth-averaged turbidity (NTU) of water samples at mid-ebb and mid-flood between 1 and 11 December 2009

Ref: 0018105_Annex G_water graphs.doc



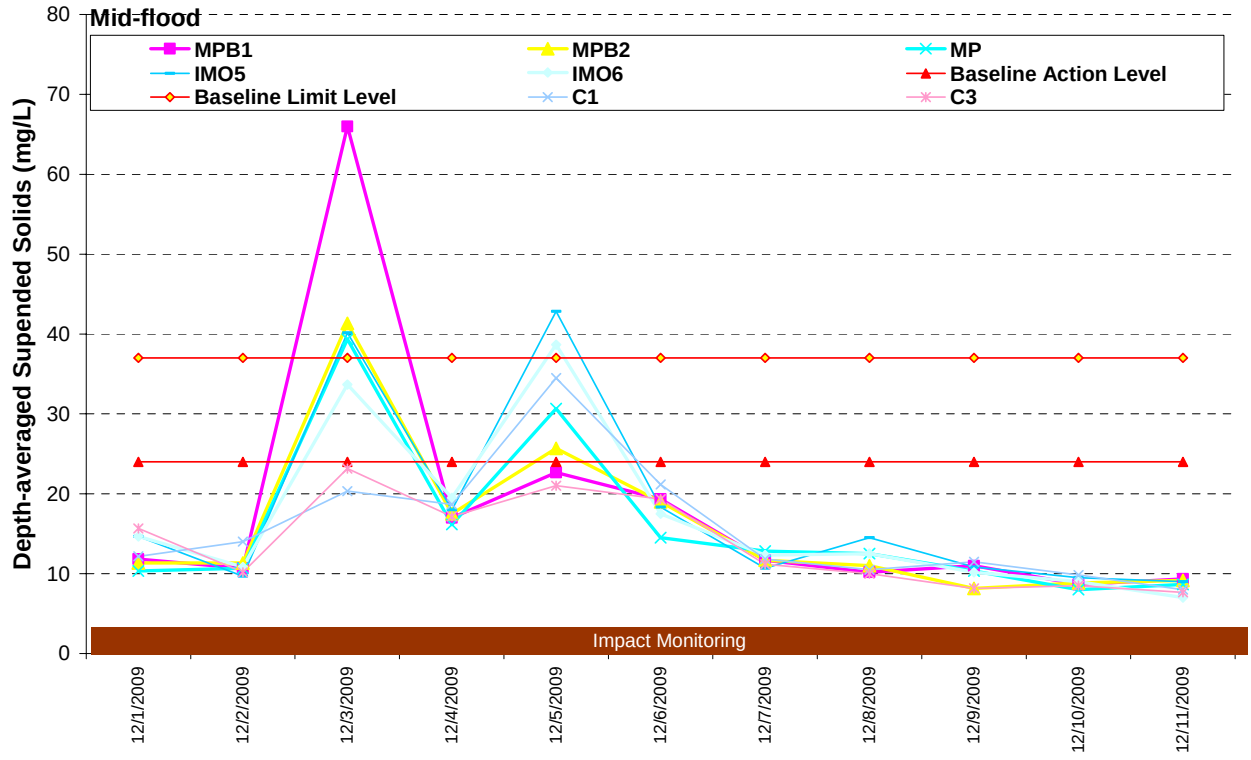


Figure G4 Depth-averaged suspended solids concentration (mg/L) of water samples at mid-ebb and mid-flood between 1 and 11 December 2009

Ref: 0018105_Annex G_water graphs.doc

Annex H

Monitoring Results and QA/QC Reports of Laboratory Testing for POPs

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 7**
Contact	: **MS KAREN LUI**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK0925898**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **Karen.Lui@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **TUEN MUN**	Quote number	: **HK/1426c/2009****	Date Samples Received	: **08-DEC-2009**
Order number	: **----**			Issue Date	: **24-DEC-2009**
C-O-C number	: **----**			No. of samples received	: **18**
Site	: **----**			No. of samples analysed	: **18**

General Comments

This report supersedes any previous report(s) with this reference. Results apply to the 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 processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client. The completion date of analysis is: 15-DEC-2009

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific comments for Work Order: **HK0925898**

Sample(s) were collected by ALS Technichem (HK) staff on 08 December, 2009.

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

This document has been electronically signed by those names that appear on this report and are the authorised signatories. Electronic signing has been carried out in compliance with procedures specified in the Electronic Transactions Ordinance of Hong Kong, Chapter 553, Section 6.

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID	MPB1 MID-EBB	MPB1 MID-EBB DUP	MPB2 MID-EBB	MPB2 MID-EBB DUP	MP MID-EBB
				Client sampling date / time	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]
					HK0925898-001	HK0925898-002	HK0925898-003	HK0925898-004	HK0925898-005
EP-065A: PCB Single Congeners									
PCB 8	34883-43-7	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 149	38380-04-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 156	38380-08-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	60044-26-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 195	52663-78-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065B: Organochlorine Pesticides									
4.4`-DDT	50-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDE	72-55-9	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDD	72-54-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%		**84.0**	**84.8**	**79.3**	**93.7**	**97.7**

Sub-Matrix: WATER				Client sample ID	MP MID-EBB DUP	CS (NM5) MID-EBB	CS (NM5) MID-EBB DUP	MPB1 MID-FLOOD	MPB1 MID-FLOOD DUP
				Client sampling date / time	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]
Compound	CAS Number	LOR	Unit		HK0925898-006	HK0925898-007	HK0925898-008	HK0925898-009	HK0925898-010
EP-065A: PCB Single Congeners									
PCB 8	34883-43-7	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 149	38380-04-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 156	38380-08-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	60044-26-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 195	52663-78-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065B: Organochlorine Pesticides									
4.4`-DDT	50-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDE	72-55-9	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDD	72-54-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%		**83.4**	**88.5**	**95.1**	**69.7**	**98.5**

Sub-Matrix: WATER				Client sample ID	MPB2 MID-FLOOD	MPB2 MID-FLOOD DUP	MP MID-FLOOD	MP MID-FLOOD DUP	C1 (NM3) MID-FLOOD
				Client sampling date / time	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]
Compound	CAS Number	LOR	Unit		HK0925898-011	HK0925898-012	HK0925898-013	HK0925898-014	HK0925898-015
EP-065A: PCB Single Congeners									
PCB 8	34883-43-7	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 18	37680-65-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 28	7012-37-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 52	35693-99-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 44	41464-39-5	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 66	32598-10-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 101	37680-73-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 77	32598-13-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 149	38380-04-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 118	31508-00-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 153	35065-27-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 105	32598-14-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 126	57465-28-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 187	52663-68-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 128	38380-07-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 156	38380-08-4	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 180	35065-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 169	60044-26-0	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 170	35065-30-6	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
PCB 195	52663-78-2	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065B: Organochlorine Pesticides									
4.4`-DDT	50-29-3	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDE	72-55-9	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
4.4`-DDD	72-54-8	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate									Surrogate control limits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%		**86.8**	**92.4**	**78.4**	**72.8**	**74.1**

Sub-Matrix: WATER				Client sample ID	C1 (NM3) MID-FLOOD DUP	C3 (NM6) MID-FLOOD	C3 (NM6) MID-FLOOD DUP		
				Client sampling date / time	[08-DEC-2009]	[08-DEC-2009]	[08-DEC-2009]		
Compound	CAS Number	LOR	Unit		HK0925898-016	HK0925898-017	HK0925898-018		
EP-065A: PCB Single Congeners									
PCB 8	34883-43-7	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 18	37680-65-2	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 28	7012-37-5	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 52	35693-99-3	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 44	41464-39-5	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 66	32598-10-0	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 101	37680-73-2	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 77	32598-13-3	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 149	38380-04-0	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 118	31508-00-6	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 153	35065-27-1	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 105	32598-14-4	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 126	57465-28-8	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 187	52663-68-0	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 128	38380-07-3	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 156	38380-08-4	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 180	35065-29-3	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 169	60044-26-0	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 170	35065-30-6	0.01	µg/L		<0.01	<0.01	<0.01		
PCB 195	52663-78-2	0.01	µg/L		<0.01	<0.01	<0.01		
EP-065B: Organochlorine Pesticides									
4.4`-DDT	50-29-3	0.01	µg/L		<0.01	<0.01	<0.01		
4.4`-DDE	72-55-9	0.01	µg/L		<0.01	<0.01	<0.01		
4.4`-DDD	72-54-8	0.01	µg/L		<0.01	<0.01	<0.01		
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%		**80.1**	**77.4**	**77.8**		

Laboratory Duplicate (DUP) Report

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-065A: PCB Single Congeners (QC Lot: 1193435)								
HK0925898-001	MPB1 MID-EBB	**PCB 8**	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 149	38380-04-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 156	38380-08-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	60044-26-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 195	52663-78-2	0.01	µg/L	<0.01	<0.01	0.0
EP-065B: Organochlorine Pesticides (QC Lot: 1193435)								
HK0925898-001	MPB1 MID-EBB	**4.4`-DDT**	50-29-3	0.01	µg/L	<0.01	<0.01	0.0
		4.4`-DDE	72-55-9	0.01	µg/L	<0.01	<0.01	0.0
		4.4`-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	0.0

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

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot: 1193435)											
PCB 8	34883-43-7	0.01	µg/L	<0.01	100 µg/L	88.7	----	50	130	----	----
PCB 18	37680-65-2	0.01	µg/L	<0.01	100 µg/L	76.8	----	50	130	----	----
PCB 28	7012-37-5	0.01	µg/L	<0.01	100 µg/L	75.7	----	50	130	----	----
PCB 52	35693-99-3	0.01	µg/L	<0.01	100 µg/L	73.6	----	50	130	----	----
PCB 44	41464-39-5	0.01	µg/L	<0.01	100 µg/L	78.5	----	50	130	----	----
PCB 66	32598-10-0	0.01	µg/L	<0.01	100 µg/L	76.6	----	50	130	----	----
PCB 101	37680-73-2	0.01	µg/L	<0.01	100 µg/L	72.0	----	50	130	----	----
PCB 77	32598-13-3	0.01	µg/L	<0.01	100 µg/L	89.9	----	50	130	----	----
PCB 149	38380-04-0	0.01	µg/L	<0.01	100 µg/L	76.2	----	50	130	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot: 1193435) - Continued											
PCB 118	31508-00-6	0.01	µg/L	<0.01	100 µg/L	71.7	----	50	130	----	----
PCB 153	35065-27-1	0.01	µg/L	<0.01	100 µg/L	78.8	----	50	130	----	----
PCB 105	32598-14-4	0.01	µg/L	<0.01	100 µg/L	75.0	----	50	130	----	----
PCB 126	57465-28-8	0.01	µg/L	<0.01	100 µg/L	85.0	----	50	130	----	----
PCB 187	52663-68-0	0.01	µg/L	<0.01	100 µg/L	75.8	----	50	130	----	----
PCB 128	38380-07-3	0.01	µg/L	<0.01	100 µg/L	74.9	----	50	130	----	----
PCB 156	38380-08-4	0.01	µg/L	<0.01	100 µg/L	74.2	----	50	130	----	----
PCB 180	35065-29-3	0.01	µg/L	<0.01	100 µg/L	71.2	----	50	130	----	----
PCB 169	60044-26-0	0.01	µg/L	<0.01	100 µg/L	82.4	----	50	130	----	----
PCB 170	35065-30-6	0.01	µg/L	<0.01	100 µg/L	77.2	----	50	130	----	----
PCB 195	52663-78-2	0.01	µg/L	<0.01	100 µg/L	79.2	----	50	130	----	----
EP-065B: Organochlorine Pesticides (QC Lot: 1193435)											
4.4`-DDT	50-29-3	0.01	µg/L	<0.01	100 µg/L	--	----	50	130	----	----
4.4`-DDE	72-55-9	0.01	µg/L	<0.01	100 µg/L	73.5	----	50	130	----	----
4.4`-DDD	72-54-8	0.01	µg/L	<0.01	100 µg/L	68.0	----	50	130	----	----

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

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

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate			
Decachlorobiphenyl	2051-24-3	50	130

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: **ES0918986**	Page	: 1 of 8
Client	: **ALS TECHNICHEM (HK)**	Laboratory	: Environmental Division Sydney
Contact	: MR GODFREY CHAN	Contact	: Charlie Pierce
Address	: 11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: godfrey.chan@alsenviro.com	E-mail	: charlie.pierce@alsenviro.com
Telephone	: +852 001185226101044	Telephone	: +61-2-8784 8555
Facsimile	: +852 26102021	Facsimile	: +61-2-8784 8500
Project	: ----	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 14-DEC-2009
Sampler	: ----	Issue Date	: 23-DEC-2009
Site	: ----		
		No. of samples received	: 18
Quote number	: ----	No. of samples analysed	: 18

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Edwandy Fadjar	Senior Organic Chemist	Organics

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting

Analytical Results

Sub-Matrix: WATER				Client sample ID	HK0925898-1 MPB1 MID-EBB	HK0925898-2 MPB1 MID-EBB DUP	HK0925898-3 MPB2 MID-EBB	HK0925898-4 MPB2 MID-EBB DUP	HK0925898-5 MP MID-EBB
				Client sampling date / time	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00
Compound	CAS Number	LOR	Unit		ES0918986-001	ES0918986-002	ES0918986-003	ES0918986-004	ES0918986-005
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		74.9	78.1	77.3	75.3	72.0
Anthracene-d10	1719-06-8	0.1	%		83.5	83.9	83.5	79.3	79.5
4-Terphenyl-d14	1718-51-0	0.1	%		88.4	91.0	87.5	85.2	84.2

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID	HK0925898-6 MP MID-EBB DUP	HK0925898-7 C2(NM5) MID-EBB	HK0925898-8 C2(NM5) MID-EBB DUP	HK0925898-9 MPB1 MID-FLOOD	HK0925898-10 MPB1 MID-FLOOD DUP
				Client sampling date / time	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00
					ES0918986-006	ES0918986-007	ES0918986-008	ES0918986-009	ES0918986-010
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**67.7**	**77.8**	**78.1**	**84.7**	**80.0**
Anthracene-d10	1719-06-8	0.1	%		**73.5**	**90.3**	**81.6**	**87.9**	**81.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**78.9**	**94.7**	**86.7**	**95.6**	**89.2**

Analytical Results

Sub-Matrix: WATER				Client sample ID	HK0925898-11 MPB2 MID-FLOOD	HK0925898-12 MPB2 MID-FLOOD DUP	HK0925898-13 MP MID-FLOOD	HK0925898-14 MP MID-FLOOD DUP	HK0925898-15 C1 (NM3) MID-FLOOD
				Client sampling date / time	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00
Compound	CAS Number	LOR	Unit		ES0918986-011	ES0918986-012	ES0918986-013	ES0918986-014	ES0918986-015
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**83.3**	**78.2**	**79.0**	**88.1**	**86.4**
Anthracene-d10	1719-06-8	0.1	%		**90.2**	**85.3**	**88.0**	**96.6**	**93.5**
4-Terphenyl-d14	1718-51-0	0.1	%		**96.0**	**92.2**	**95.4**	**99.3**	**99.7**

Analytical Results

Sub-Matrix: WATER				Client sample ID	HK0925898-16 C1 (NM3) MID-FLOOD DUP	HK0925898-17 C3(NM6) MID-FLOOD	HK0925898-18 C3(NM6) MID-FLOOD DUP	----	----
				Client sampling date / time	08-DEC-2009 15:00	08-DEC-2009 15:00	08-DEC-2009 15:00	----	----
Compound	CAS Number	LOR	Unit		ES0918986-016	ES0918986-017	ES0918986-018	----	----
EP132B: Polynuclear Aromatic Hydrocarbons									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	<0.1	<0.1	----	----
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	<0.1	<0.1	----	----
7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Acenaphthene	83-32-9	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Anthracene	120-12-7	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	<0.05	<0.05	----	----
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Chrysene	218-01-9	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Coronene	191-07-1	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Fluoranthene	206-44-0	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Fluorene	86-73-7	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L		<0.1	<0.1	<0.1	----	----
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Naphthalene	91-20-3	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Perylene	198-55-0	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Phenanthrene	85-01-8	0.1	µg/L		<0.1	<0.1	<0.1	----	----
Pyrene	129-00-0	0.1	µg/L		<0.1	<0.1	<0.1	----	----
EP132T: Base/Neutral Extractable Surrogates									
2-Fluorobiphenyl	321-60-8	0.1	%		**93.3**	**86.1**	**88.5**	----	----
Anthracene-d10	1719-06-8	0.1	%		**101**	**93.6**	**93.0**	----	----
4-Terphenyl-d14	1718-51-0	0.1	%		**106**	**96.7**	**96.8**	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP132T: Base/Neutral Extractable Surrogates			
2-Fluorobiphenyl	321-60-8	43	116
Anthracene-d10	1719-06-8	27	133
4-Terphenyl-d14	1718-51-0	33	141

Environmental Division

QUALITY CONTROL REPORT

Work Order	: **ES0918986**	Page	: 1 of 5
Client	: **ALS TECHNICHEM (HK)**	Laboratory	: Environmental Division Sydney
Contact	: MR GODFREY CHAN	Contact	: Charlie Pierce
Address	: 11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: godfrey.chan@alsenviro.com	E-mail	: charlie.pierce@alsenviro.com
Telephone	: +852 001185226101044	Telephone	: +61-2-8784 8555
Facsimile	: +852 26102021	Facsimile	: +61-2-8784 8500
Project	: ----	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----		
C-O-C number	: ----	Date Samples Received	: 14-DEC-2009
Sampler	: ----	Issue Date	: 23-DEC-2009
Order number	: ----		
		No. of samples received	: 18
Quote number	: ----	No. of samples analysed	: 18

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

This document has been electronically signed by the authorized signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category
Edwandy Fadjar	Senior Organic Chemist	Organics

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insuffient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR:- No Limit; Result between 10 and 20 times LOR:- 0% - 50%; Result > 20 times LOR:- 0% - 20%.

		----						No Limit

- **No Laboratory Duplicate (DUP) Results are required to be reported.**

Method Blank (MB) and Laboratory Control Spike (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Recovery Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 1196003)								
EP132: 3-Methylcholanthrene	56-49-5	0.10	µg/L	<0.1	2 µg/L	93.0	65.8	121
EP132: 2-Methylnaphthalene	91-57-6	0.10	µg/L	<0.1	2 µg/L	79.2	67.7	112
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.10	µg/L	<0.1	2 µg/L	101	11.6	146
EP132: Acenaphthene	83-32-9	0.10	µg/L	<0.1	2 µg/L	82.0	73.2	111
EP132: Acenaphthylene	208-96-8	0.10	µg/L	<0.1	2 µg/L	84.2	72.4	112
EP132: Anthracene	120-12-7	0.10	µg/L	<0.1	2 µg/L	84.9	73.4	113
EP132: Benz(a)anthracene	56-55-3	0.10	µg/L	<0.1	2 µg/L	87.6	73.6	114
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	83.1	75.2	117
EP132: Benzo(b)fluoranthene	205-99-2	0.10	µg/L	<0.1	2 µg/L	84.4	71.4	119
EP132: Benzo(e)pyrene	192-97-2	0.10	µg/L	<0.1	2 µg/L	82.5	75.3	118
EP132: Benzo(g.h.i)perylene	191-24-2	0.10	µg/L	<0.1	2 µg/L	77.3	66.6	121
EP132: Benzo(k)fluoranthene	207-08-9	0.10	µg/L	<0.1	2 µg/L	84.7	74.8	118
EP132: Chrysene	218-01-9	0.10	µg/L	<0.1	2 µg/L	83.8	69.6	120
EP132: Coronene	191-07-1	0.10	µg/L	<0.1	2 µg/L	74.4	47.4	131
EP132: Dibenz(a.h)anthracene	53-70-3	0.10	µg/L	<0.1	2 µg/L	80.0	71.5	117
EP132: Fluoranthene	206-44-0	0.10	µg/L	<0.1	2 µg/L	85.1	74.8	117
EP132: Fluorene	86-73-7	0.10	µg/L	<0.1	2 µg/L	88.5	72.9	114
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.10	µg/L	<0.1	2 µg/L	79.6	67.8	119
EP132: N-2-Fluorenyl Acetamide	53-96-3	0.10	µg/L	<0.1	20 µg/L	108	53.6	131
EP132: Naphthalene	91-20-3	0.10	µg/L	<0.1	2 µg/L	83.1	68.3	116
EP132: Perylene	198-55-0	0.10	µg/L	<0.1	2 µg/L	83.2	68	122
EP132: Phenanthrene	85-01-8	0.10	µg/L	<0.1	2 µg/L	85.0	74.8	112
EP132: Pyrene	129-00-0	0.10	µg/L	<0.1	2 µg/L	86.1	75.1	117

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

- **No Matrix Spike (MS) Results are required to be reported.**

Annex I

Dolphin Sighting Records

Project name: EM&A for Permanent Aviation Fuel Facility (PAFF)
Activity: Dolphin Impact Monitoring

*Remark: Record the number of dolphin occurrences within the 500m exclusion zone
(A) prior to/ outside dredging times and (B) during dredging OR (C) outside the exculsion zone

Week	Date		Derrick Lighters #38		Derrick Lighters #83		Grab dredger		Observer's Name
			No. of Dolphin Occurrence*	Sighting Sheet No.	No. of Dolphin Occurrence*	Sighting Sheet No.	No. of Dolphin Occurrence*	Sighting Sheet No.	
1	Fri	13-Nov	0	-	Not in operation		Not in operation		Alvin Lee
	Sat	14-Nov	0	-	0	0	Not in operation		Richard Huang
	Sun	15-Nov	0	-	0	0	Not in operation		Richard Huang
2	Mon	16-Nov	0	-	2 (C)	1-2	Not in operation		Alvin Lee
	Tue	17-Nov	0	-	Not in operation		0	-	Richard Huang
	Wed	18-Nov	0	0	Not in operation		Not in operation		Francesca Zino
	Thu	19-Nov	1 (C)	4	Not in operation		0	-	Richard Huang
	Fri	20-Nov	0	-	Not in operation		0	-	Alvin Lee
	Sat	21-Nov	0	-	Not in operation		0	-	Richard Huang
	Sun	22-Nov	0	-	Not in operation		0	-	Alvin Lee
3	Mon	23-Nov	Not in operation		Not in operation		0	-	Alvin Lee
	Tue	24-Nov	0	-	Not in operation		0	-	Richard Huang
	Wed	25-Nov	1 (C)	5	Not in operation		0	-	Alvin Lee
	Thu	26-Nov	0	-	Not in operation		0	-	Anson Chow
	Fri	27-Nov	0	-	Not in operation		0	-	Alvin Lee
	Sat	28-Nov	0	-	Not in operation		0	-	Richard Huang
	Sun	29-Nov	0	-	Not in operation		0	-	Alvin Lee
4	Mon	30-Nov	0	-	Not in operation		0	-	Anson Chow
	Tue	1-Dec	Not in operation		Not in operation		Not in operation [1 (A)]†	5	Richard Huang
	Wed	2-Dec	Not in operation		Not in operation		1 (A)	6	Anson Chow
	Thu	3-Dec	Not in operation		Not in operation		0	-	Richard Huang
	Fri	4-Dec	Not in operation		Not in operation		0	-	Anson Chow
	Sat	5-Dec	Not in operation		Not in operation		0	-	Richard Huang
	Sun	6-Dec	Not in operation		Not in operation		1 (A)	7	Alvin Lee
5	Mon	7-Dec	Not in operation		Not in operation		0	-	Anson Chow
	Tue	8-Dec	Not in operation		Not in operation		0	-	Richard Huang
	Wed	9-Dec	Not in operation		Not in operation		0	-	Anson Chow
	Thu	10-Dec	Not in operation		Not in operation		1 (B)	8	Anson Chow
	Fri	11-Dec	Not in operation		Not in operation		0	-	Anson Chow

† Dolphin monitoring was conducted, despite the Grab Dredger not operationing that day

Data included in the 37th Monthly Report

Permanent Aviation Fuel Facility (PAFF) - Dolphin Sighting Records

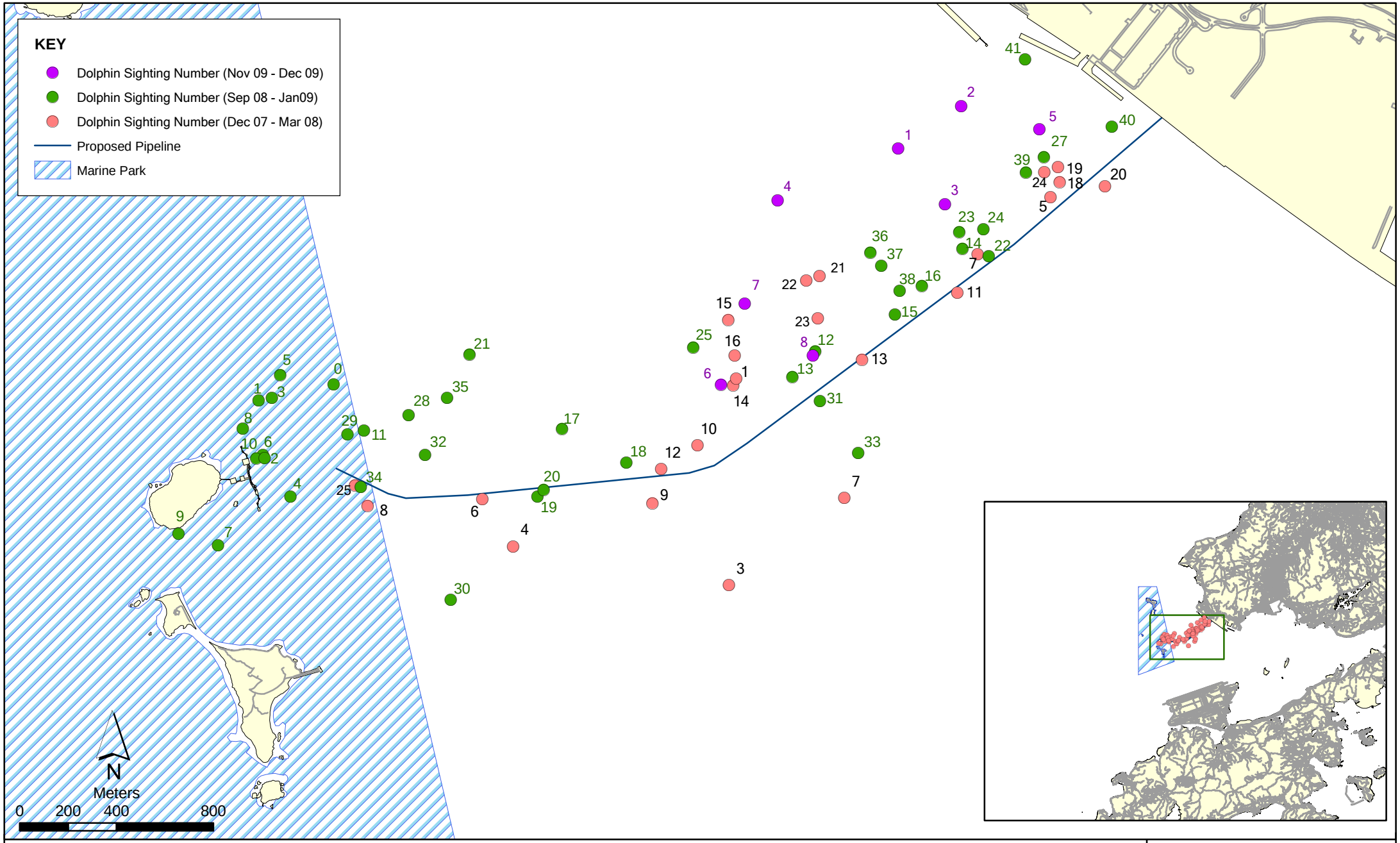
Sighting No.	Date	Time	Dredger Coordinates (N-Lat)	Dredger Coordinates (E-Long)	Sighting Distance (m)	#Sighting Angle from Dredging Machine (o)	Group size	Group Composition*	Beaufort	Boat Association	Behaviour	Other comments
1	16-Nov-09	0848	825063.045	810003.667	640	278	2	Undetermined	3	None	Undetermined	Sighting at 600m during dredging
2	16-Nov-09	0939	825223.562	810220.771	600	280	1	Undetermined	3	None	Undetermined	Sighting at 640m during dredging
3	19-Nov-09	1017	825098.716	810051.912	520	250	2	1SJ, 1UA	2	None	Travelling	One sighting at 520m during dredging
4	25-Nov-09	0849	825104.661	810059.953	>1200	262	2	Undetermined	2	Shrimp	Feeding	One sighting at >1.2km from vessel during dredging
5	1-Dec-09	0820	825104.641	810060.293	166	320	1	Undetermined	2	None	Jumping	One sighting at 166m. After 20 minutes, at 560m, not during dredging. **NB** Dredger not in operation for the whole day
6	2-Dec-09	1250	824212.831	808854.207	220	260	2	Undetermined	2	None	Socializing	Sighting at 220m; after 5 minutes, at 250m. Sited during lunch break when dredger had temporarity stopped operations
7	6-Dec-09	0832	824272.284	808934.619	310	320	2	1SS, 1US	2	None	Diving	Sighting at 310m moving west and leaving exclusion zone at 0838, during pre-dredging check
8	10-Dec-09	1645	824303.921	808968.362	50	100	1	Undetermined	2	None	Spy-hopping	Sighting at 50m during dredging

*Key:

UC = Unspotted Calf
UJ = Unspotted Juvenile
SJ = Spotted Juvenile
SS = Spotted Sub-adult
SA = Spotted Adult
UA = Unspotted Adult

Compass bearing is used (North = 0 degree)

Data included in the 37th Monthly Report



Dolphin Sighting Locations (as of 31 December 2009)

File: 0018105_Dolphin_Dec09.mxd
Date: 18/01/2010

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