





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

Twenty-Seventh Monthly Environmental Monitoring and Audit Report – January 2009

17 February 2009

Environmental Resources Management

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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:

27th Monthly EM&A Report - January 2009

Date of Report:

17 February 2009

Date prepared by ET:

17 February 2009

Date received by IEC:

17 February 2009

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:

17 February 2009

IEC Verification

I hereby verify that the above referenced document/ $\frac{1}{2}$ complies with the above referenced condition of EP-262/2007/B

Dr Guiyi Li, Independent Environmental Checker: Date:

19 Feb 2009

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)

Twenty-Seventh Monthly Environmental Monitoring and Audit Report – January 2009

17 February 2009

Prepared by: Karen Lui/Craig A Reid

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For and on behalf of

Environmental Resources Management

Approved by: Craig A Reid

Signed:

Position: Environmental Team Leader

Date: 17 February 2009

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EXECUTIVE SUMMARY

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

Breaches of all Action and Limit Levels

No exceedances of any Action and Limit Levels applicable to the project were observed during the reporting period.

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 was no reporting changes in the reporting period.

Future Key Issues

Dust release and suppression.

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 (PAFF) (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 has been 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 issued by the EPD on 27 February 2008.

The construction works and EM&A requirements were resumed on 9th 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 **twenty-seventh** EM&A Report which summarizes the monitoring results and audit findings for the EM&A programme during the reporting period from **1 January** to **31 January** 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*. Dredging operation was suspended from 1 April to 31 August 2008 and resumed on 1 September 2008. *Table 2.2* presents the cumulative quantity of excavated materials up to 31 January 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
	Operational & Fire Services Buildings Construction
	Jetty Works (Non-piling)
Submarine Pipeline Route	Dredging Operations

Table 2.2 Cumulative Quantity of Excavated Marine Sediments up to 31 January 2009

Type of Excavated Materials	Cumulative Bulk Volume (m³)
From 17 December 2007 to 31 March 2008	
Contaminated Mud	105,974
Uncontaminated Mud	97,815
From 1 September 2008 to 31 January 2009	
Contaminated Mud	0
Uncontaminated Mud	149,147

2.4 MONITORING SCHEDULE OF THE REPORTING MONTH

Daily water quality monitoring during dredging activities was recommenced on 1 September 2008. The monitoring schedule for January 2009 is presented in *Annex C*.

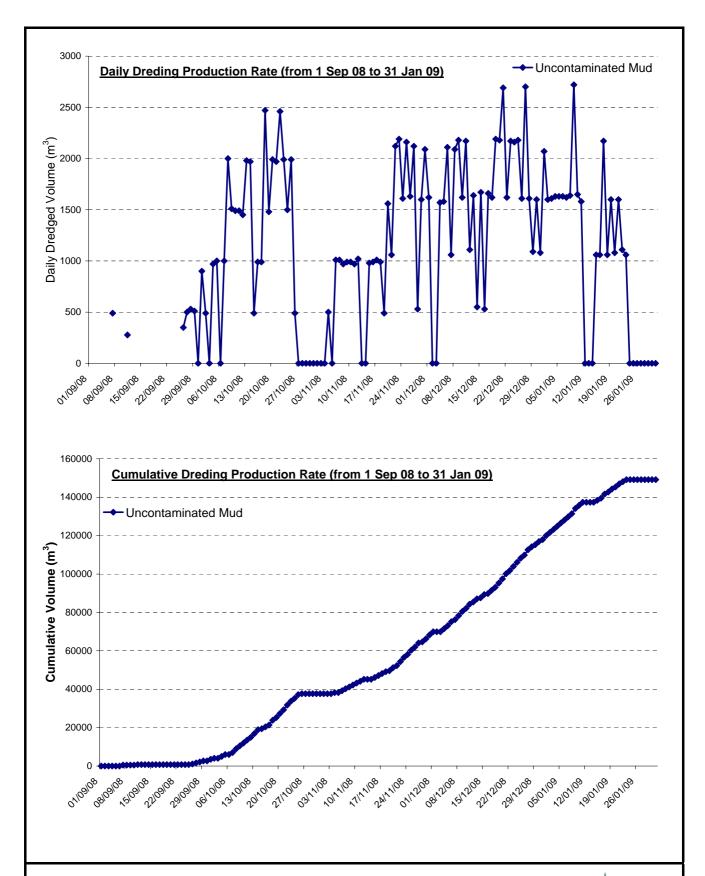


Figure 2.1 Daily and cumulative volumes (m³) of excavated materials from 1 September to 31 January 2009. Excavated materials contained uncontaminated mud only.



Ref: 0018105_Figure 2.1_dredging volume.doc

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
	GW-RVV0678-07	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

Permit/ Licenses/	Reference	Validity Period	Remarks
Notification	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
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

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
	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
	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
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) shall be established within three months after 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. Details of the CLG (including Membership and its Terms of Reference) can be found on the Project website (http://www.paffhk.com).

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

No environmental non-compliance was recorded during the reporting period.

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 ENVIRONMENTAL ISSUES AND ACTIONS

3.1 Previous Environmental Deficiencies and Follow-up Actions

As no environmental complaint was received over the last reporting period, no follow-up action was required.

Weekly site inspections were carried out by the ET on 7, 15 and 20 January 2009. Site inspection was not conducted in the last week of January as the site was not in operation due to public holidays. Overall, the site was in good orderly manner and no non-compliances were found. Environmental deficiencies and follow-up actions/mitigation measures were identified during the inspections, as follows:

Water Quality

• On 7 January 2009, a stagnant water pool was observed inside the chemical storage area. The Contractor was reminded to arrange *ad hoc* water clearances as necessary.

Waste Management

- On 15 January 2009, general wastes near the operation building were observed to be full. The Contractor was recommended to arrange collection of general wastes by a licensed Contractor as soon as possible.
- On 20 January 2009, oil sheens were observed on the floor in the chemical storage area near the operational building. The Contractor was recommended to clear spillages and to provide suitable spillage control measures as soon as possible.
- On 15 and 20 January 2009, some lubricant oil containers were stored outside workshop without proper receptacle and not sealed. The Contractor was reminded to replace bins and lids for temporary storage as soon as possible.
- On 20 January 2009, construction waste and paper waste were piled up together without proper sorting and receptacle bins near the operation building. The Contractor was reminded to replace bins for temporary storage as soon as possible.

With the exception of the above observations, the site was in a good orderly manner. 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 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 recommenced on 1 September 2008 alongside dredging activities. 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 turbidity, dissolved oxygen (DO) and suspended solids (SS) levels of all Impact Stations were compliant with the Action and Limit (AL) Levels specified in the *EM&A Manual*.

4.3 POPS MONITORING

Biweekly monitoring of POPs in water samples was conducted on 10 January 2009 for POPs analysis. All POPs parameters were below detection limits. Monitoring results and QA/QC reports for 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 05 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 appeared to be habilitated by vegetation which was grown during the project suspension period. The transplanted trees appeared to be in good and healthy condition.

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

4.7 LAND CONTAMINATION, HAZARD TO LIFE AND FUEL SPILL RISK

The ET and IEC verified updated design audit plan was submitted to the EPD on 7 November 2007.

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 with *EM&A Manual*, dolphin monitoring has been undertaken during dredging activities since 1 September 2008. During the reporting period, a total of 3 dolphin sightings were recorded. Appropriate action was taken in accordance with 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 has been 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 construction of the Project. A revised *EM&A Manual* has been verified by the IEC and was submitted to EPD on 2 December 2008. Further comments were received from the EPD on 16 January 2009 and the ET will revise the *Manual* in the next reporting month.

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 issues to be considered in the next month will be:

• Dust release and suppression.

5.2 IMPACT PREDICTION FOR THE NEXT MONTH

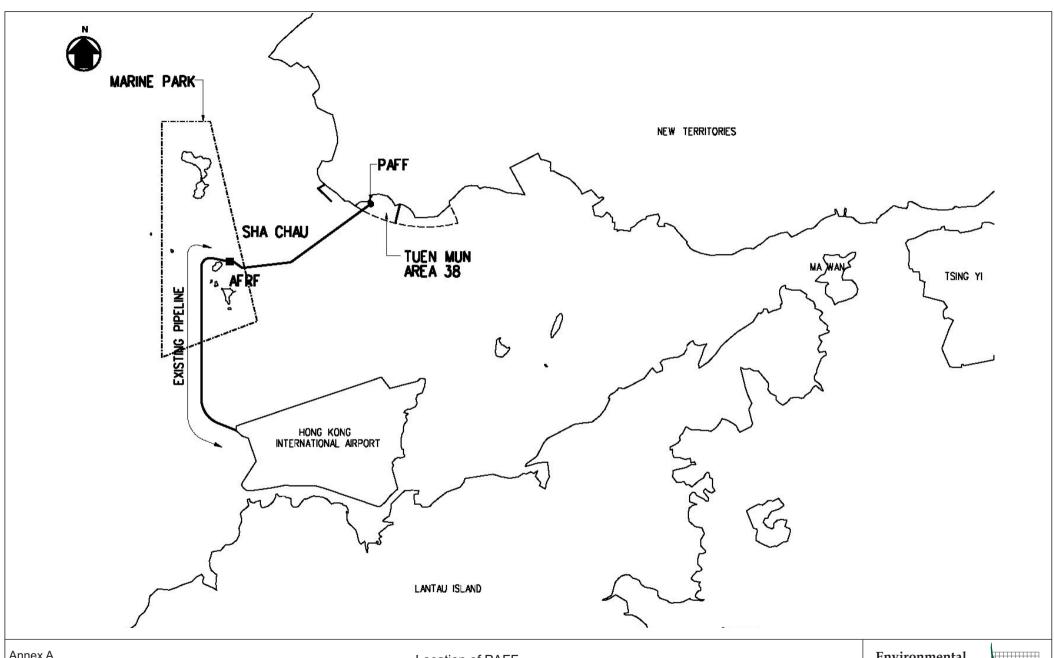
Provided that environmental mitigation measures including good on-site practises are properly implemented, it is not expected that unacceptable adverse impacts will arise.

5.3 WORKS AND MONITORING SCHEDULE FOR THE NEXT MONTH

Work programme for the next month includes jetty platform works (non-piling) and land-based site works (construction works for tank farm, operational and fire services buildings, pump platform, drainages, bund wall, security wall etc). Weekly site inspections will be undertaken.

Annex A

Project Location



Annex A

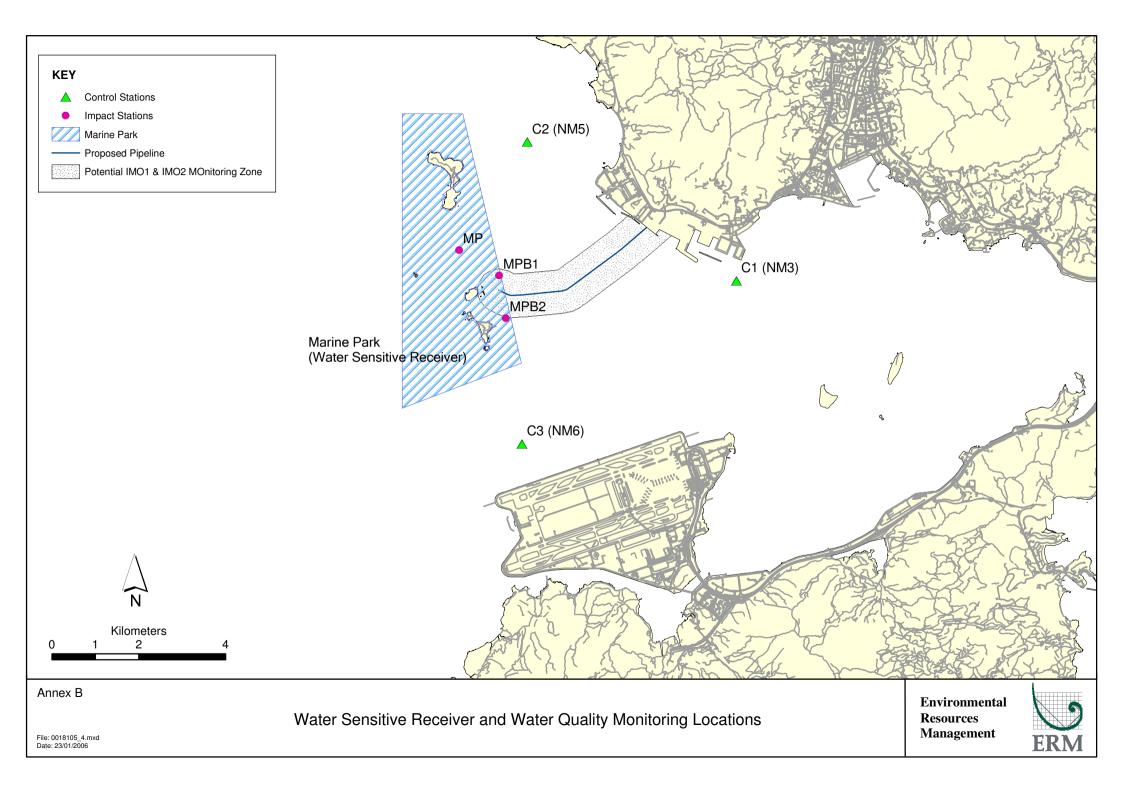
Location of PAFF

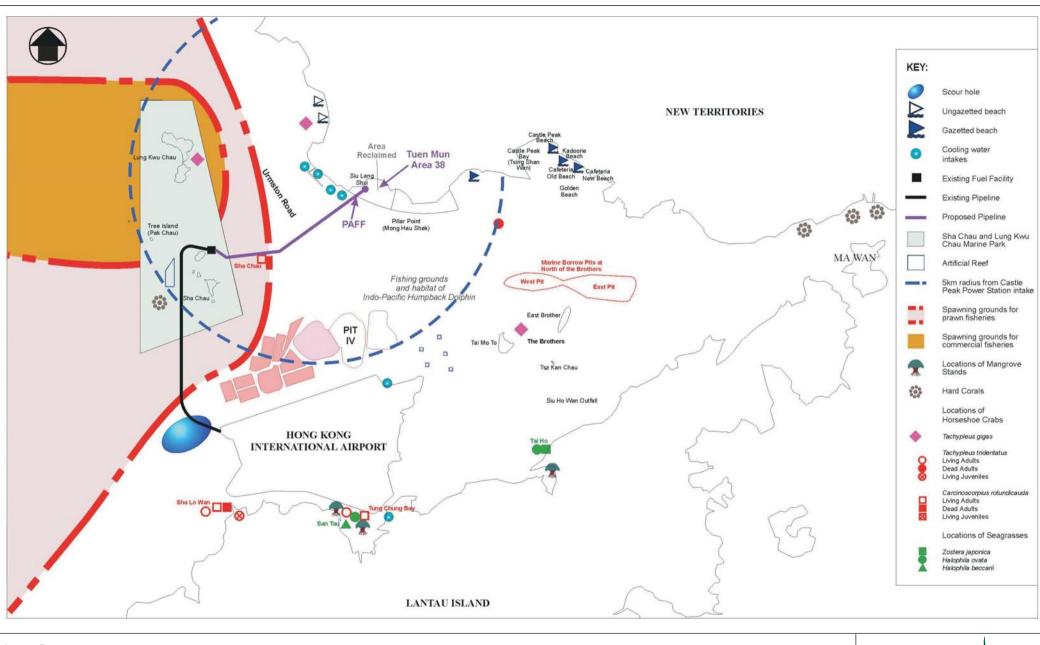
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Annex B

Water Quality Monitoring Stations, Water Quality and Ecological Sensitive Receivers





Annex B

FILE: C2475aa

DATE: 12/11/2007

Water Quality and Ecological Sensitive Receivers

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

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Annex C

Monitoring Schedule for the Reporting Period

PAFF
Impact Water Quality Monitoring Schedule for January 2009

Sunda	ay	Monda	ay	Tues	day	Wedne	esday	Thurs	day	Frid	ay	Satu	rday
									01-Jan		02-Jan		03-Jan
								Mid-Flood	10:38	Mid-Flood	11:08	Mid-Flood	11:41
								Mid-Ebb	16:00	Mid-Ebb	16:44	Mid-Ebb	17:37
	04-Jan		05-Jan		06-Jan		07-Jan		08-Jan		09-Jan		10-Jan
												(POP sample	ing)
Mid-Flood	12:15	Mid-Flood	12:52	Mid-Ebb	07:18	Mid-Ebb	08:45	Mid-Ebb	10:14	Mid-Ebb	11:21	Mid-Ebb	12:17
Mid-Ebb	18:47	Mid-Ebb	19:54	Mid-Flood	13:33	Mid-Flood	14:19	Mid-Flood	15:14	Mid-Flood	16:14	Mid-Flood	17:15
	11-Jan		12-Jan		13-Jan		14-Jan		15-Jan		16-Jan		17-Jan
Mid-Ebb	13:08	Mid-Ebb	13:55	Mid-Ebb	14:39	Mid-Flood	10:00	Mid-Flood	10:35	Mid-Flood	11:07	Mid-Flood	11:38
Mid-Flood	18:13	Mid-Flood	19:07	Mid-Flood	19:58	Mid-Ebb	15:22	Mid-Ebb	16:06	Mid-Ebb	16:52	Mid-Ebb	17:49
	18-Jan		19-Jan		20-Jan		21-Jan		22-Jan		23-Jan		24-Jan
Mid-Flood	12:06	Mid-Ebb	06:12	Mid-Flood	09:06	Mid-Flood	10:15	Mid-Flood	10:58	Mid-Ebb	11:25		
Mid-Ebb	19:01	Mid-Flood	12:36	Mid-Ebb	21:48	Mid-Ebb	22:34	Mid-Ebb	23:14	Mid-Flood	15:55	No WQ M	onitoring*
	25-Jan		26-Jan		27-Jan		28-Jan		29-Jan		30-Jan		31-Jan

No WQ Monitoring*

^{*} Water quality monitoring will not be conducted since no dredging operation will be undertaken

Annex D

Cumulative Complaints Statistics

Summary of Environmental Complaints

Reporting Period	Complaint Statistics						
	Frequency	Cumulative	Complaint Nature				
Before construction	1	1	Dust				
works							
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				
09/07/07 = 31/07/07	0	2	Nil				
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				

Summary of Environmental Summons

Reporting Period]	Environmental Summo	ns
	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 con	struction 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

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 Qua	lity				•			
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	On going
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	EM&A	Environmental Protection Measures	Location/	Implementation Agent	Relevant	In	-			Maintenance	-
Reference	Manual Reference		Timing		Standard or Requirement	D		hedu C	o O	Agency	
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	e	Location/ Timing	Implementation Agent	Relevant Standard or	In	nplementation Schedule		Status
Keterence	Reference		rming		Requirement	D	C O	Agency	
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	Pending
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 onsite 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	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	In	-	emei ched	ntation ule	Maintenance Agency	Implementation Status
	Reference		8	8-	Requirement	D		C	О	<i>8</i> 7	
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) o nsite 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	In	-	mentation hedule	Maintenance Agency	Implementation Status
			· ·		Requirement	D C O				
6.7	6.8.1	All vehicles and plant should be cleaned	Land site/	Contractor	TMEIA			Y	N/A	Ongoing
		before they leave the construction site to	Throughout		ProPECC Note					
		ensure that no earth, mud or debris is	construction		1/94. WPCO					
		deposited by them on roads. A wheel	period		TM on Effluent					
		washing bay should be provided at every site exit.			Standards					
6.7	6.8.1	Wheel wash overflow shall be directed to	•	Contractor	TMEIA			Y	N/A	Ongoing
		silt removal facilities before being	Throughout		ProPECC Note					
		discharged to the storm drain.	construction		1/94. WPCO					
			period		TM on Effluent					
					Standards					
6.7	6.8.1	The section of construction road between	•	Contractor	TMEIA			Y	N/A	Ongoing
		the wheel washing bay and the public	Throughout		ProPECC Note					
		road should be surfaced with crushed	construction		1/94. WPCO					
		stone or coarse gravel.	period		TM on Effluent					
				_	Standards					
6.7	6.8.1	Wastewater generated from concreting,	Land site/	Contractor	TMEIA			Y	N/A	Ongoing
		plastering, internal decoration, cleaning	period	on	ProPECC Note					
		work and other similar activities, shall be			1/94. WPCO					
		,			TM on Effluent					
					Standards			27/1		
6.7	6.8.1	Vehicle and plant servicing areas, vehicle	·	Contractor	TMEIA			Y	N/A	Ongoing
		wash bays and lubrication facilities shall	Throughout		ProPECC Note					
		be located under roofed areas. The	construction		1/94. WPCO					
		drainage in these covered areas shall be	period		TM on Effluent					
		connected to foul sewers via a petrol			Standards					
		interceptor in accordance with the								
		requirements of the WPCO or collected								
6.7	6.8.1	for off site disposal. The contractors shall prepare	Land site/	Contractor	TMEIA			Y	NI / A	Ongoing
0.7	0.0.1	oil/chemical cleanup plan and ensure	Throughout	Contractor	ProPECC Note			1	N/A	Ongoing
		that leakages or spillages are contained	construction		1/94. WPCO					
		and cleaned up immediately.	period		TM on Effluent					
		and cleaned up mimediatery.	periou		Standards					
					Januarus					

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	In	-		Maintenance	-
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D		edule C O	Agency	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	Pending
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	Pending

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	In	-	ementa chedul		Maintenance Agency	Implementation Status
	Reference		_		Requirement	D		C	О		
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	Pending
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	On going
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	On going
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	On going
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	Pending
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	On going

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant Standard or Requirement	In	Implementation				-
Reference	Manual Reference		Timing	Agent		D		hedul C	le O	Agency	Status
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
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	Pending
Ecology 7.8	5.3	Undertake post construction dolphin abundance monitoring.	Construction	Contractor	TMEIA			Y		N/A	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	-	entatio dule	Agency	Implementation Status
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/throug hout 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									
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	Υ	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	Υ	N/A	Ongoing

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	Im	plement Schedu		Maintenance Agency	Implementation Status
	Reference		-		Requirement	D	C	Ο		
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
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.	-	Project Proponent	TMEIA	Y	Y	Y	N/A	Ongoing

Cultural Heritage

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	,	olement Schedu		Maintenance Agency	Implementation Status
	Reference				Requirement	D	C	Ο		
9.8.1	9.2.1	Undertake a watching brief during	Within vicinity	Franchisee	TMEIA		Y		N/A	Completed
		dredging of the pipeline within 25m	of SS1 and SS2							

- 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,

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	In	plement Schedu		Maintenance Agency	Implementation Status
-	Reference				Requirement	D	C	O		
		 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. 								
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 I	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	On going
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	On going
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	On going
11.4.1	10.2	Pipeline to be covered with a protective rock armour layer.	Pipelines/ Design Phase	Franchisee	TMEIA	Y			Franchisee	On going
11.4.1	10.2	An integrated leak detection system shall be installed to all pipelines to provide early detection of any leak.	0	Franchisee	TMEIA	Y			N/A	On going

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	plem	entation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Sche	dule	Agency	Status
	Reference				Requirement	D	C	O		
11.4.1	10.2	An automatic shut-off system shall be	Pipelines/	Franchisee	TMEIA	Y			N/A	On going
		implemented for pipelines.	Design Phase							
11.4.1	10.2	A workboat shall be on standby at the	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		jetty during tanker berthing.	Tanker Berth							
11.4.1	10.2	Skimmers shall be available for quick	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		deployment in case of a spill.	Tanker Berth							
11.4.1	10.2	An emergency response plan shall be	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		prepared prior to the operation of the	Tanker Berth							
		PAFF.								
11.4.1	10.2	Operator-training programme shall be	Jetty/ During	Franchisee	TMEIA	Y		Y	N/A	Pending
		implemented.	Tanker Berth							
11.6	10.4	During the planning of the later phase of	During	Franchisee	TMEIA			Y	N/A	Pending
		the tank farm development, in order to	planning stage							
		ensure that the required mitigation	for future tank							
		measures are undertaken at that time,	construction							
		review the EIA report only if the latest								
		technology, industrial standards and								
		statutory requirements have changed by								
		that time.								

EIA Reference	EM&A Manual	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or	In	plement Schedu		Maintenance Agency	Implementation Status
Reference	Reference		Timing	Agent	Requirement	D	C	O	Agency	Status
11.6	10.4	Regular inspections and audits will be undertaken by the Franchisee during the operational phase of the facility:	Operation	Franchisee	TMEIA			Y	N/A	Pending
		 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.								
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.	of operation of the PAFF with audits every 12	Franchisee	TMEIA			Y	N/A	Pending
Land Conta	amination	1								
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	On going
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	On going
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	On going
13.5.1	10.2	Impermeable lining shall be provided for all tank pits.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	On going

EIA Reference	EM&A Manual	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or	Im	pleme Sche	entation dule	Maintenance Agency	Implementation Status
	Reference		8	8	Requirement	D	C	О	<i>g</i> - <i>y</i>	
13.5.1	10.2	Leak detection systems shall be provided to all valves.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	On going
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	On going
13.5.1	10.2	Emergency spill response plans shall be prepared.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Pending
13.5.1	10.2	Spill control materials and equipment shall be provided on site.	Tank farm / Design	Franchisee	TMEIA	Y		Y	N/A	Pending
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	On going
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	Pending
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	On going
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.		Franchisee	TMEIA	Y	Y	Y	N/A	On going
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	Υ	Y	N/A	On going
13.5.5	10.2	-	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	On going

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Imp	lement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or	9	Schedu	le	Agency	Status
	Reference				Requirement	D	C	O		
13.5.5	10.2	Drainage from areas of hardstanding	Tank farm /	Franchisee	TMEIA	Y	Y	Y	N/A	On going
		shall be treated by means of oil/water	Design							
		separators prior to discharge to storm								
		drain. All surface drainage shall be								
		fitted with closure valves to provided								
		additional containment and facilitate								
		clean up of any leaks.								
13.5.5	10.2	The delivery pipeline from the jetty and	Tank farm /	Franchisee	TMEIA	Y	Y		N/A	On going
		the supply line to the airport shall be	Design							
		fitted with pressure sensitive leak								
Masta Mass		detectors.								
Waste Man	U				TD CELL		37		NT / A	
14.7.2	8.3.1	The Contractor shall identify a	Contract mobilisation	Contractor	TMEIA		Y		N/A	Ongoing
		coordinator for the management of waste.	modifisation							
14.7.2	8.3.1	The waste coordinator shall prepare and	Contract	Contractor	TMEIA, Works		Y		N/A	Ongoing
14.7.2	0.3.1	implement a Waste Management Plan	mobilisation	Contractor	Branch		1		11/11	Origonia
		which specifies procedures such as	modification		Technical					
		ticketing system, to facilitate tracking of			Circular No.					
		loads and to ensure that illegal disposal			5/99 for the					
		of waste does not occur, and protocols			Trip-ticket					
		for the maintenance of records of the			System for					
		quantities of wastes generated, recycled			Disposal of					
		and disposal.			Construction					
					and Demolition					
					Material					

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	-	nentat		Maintenance	Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D		edule	O	Agency	Status
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		•	Ý		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
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		,	Ý		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

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	In			Maintenance	Implementation
Reference	Manual Reference		Timing	Agent	Standard or Requirement	D	hedul C	e O	Agency	Status
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	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
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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	-		ntatio	on O	Maintenance Agency	Implementation Status
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	Б		Y		<u>J</u>	N/A	Ongoing
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			Υ			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

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	-			Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or	Ъ		hedu		Agency	Status
14.7.2	Reference 8.3.1	Suitable chemical waste storage areas	Works site/	Contractor	Requirement TMEIA, Code of	D		C Y	O	N/A	Ongoing
14.7.2	0.3.1	should be formed at the works site for	throughout	Contractor	Practice on the			1		IN/ A	Origoring
		temporary storage pending collection.	construction		Packaging,						
		temporary storage pertains concedion.	period		Labelling and						
			1		Storage of						
					Chemical						
					Wastes. A						
					Guide to the						
					Chemical Waste						
					Control Scheme						
14.7.2	8.3.1	A licensed contractor shall be employed	Chemical waste	Contractor	TMEIA, Code of			Y		N/A	Ongoing
		to collect chemical waste for delivery to a			Practice on the						
		licensed treatment facility.	facility at Tsing		Packaging,						
			Yi / throughout		Labelling and						
			construction		Storage of						
			period		Chemical						
					Wastes. A						
					Guide to the						
					Chemical Waste Control Scheme	e					
14.7.2	8.3.1	Toman analysis atoma are among four grounds	All areas/	Combractor	TMEIA, Public			N/A	Omacina		
14.7.2	0.3.1	Temporary storage areas for general refuse should be enclosed to avoid	throughout	Contractor	Health and			Y		N/A	Ongoing
		environmental impacts.	construction		Municipal						
		environmental impacts.	period		Services						
			period		Ordinance						
14.7.2	8.3.1	Sufficient dustbins should be provided	All areas/	Contractor	TMEIA, Public			Y		N/A	Ongoing
11.7.2	0.0.1	for storage of waste.	throughout	Contractor	Cleansing and			•		14/11	Ongonig
			construction		Prevention of						
			period		Nuisances						
			1		Ordinance						
					(Regional						
					Council) By-						
				laws, Public							
		Health and	Health and								
					Municipal						
					Services						
					Ordinance						

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	nplementation Schedule C O	Maintenance Agency	Implementation Status
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
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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	In D	nplementation Schedule C O	Maintenance Agency	Implementation Status
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
14.7.2	8.3.1	All storage areas for chemical waste shall be:	PAFF site/ throughout construction	Contractor	TMEIA		Y	N/A	Ongoing
		Clearly labelled;Enclosed on at least 3 sides;	period						
		 Have impermeable floor and bunding sufficient to fully retain any spillage or leakages; 							
		• Ventilated; and,							
		Covered to prevent rainfall from entering.							
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

EIA	EM&A	Environmental Protection Measures	Location/	Implementation	Relevant	Im	plement	ation	Maintenance	Implementation
Reference	Manual		Timing	Agent	Standard or		Schedule		Agency	Status
	Reference				Requirement	D	C	O		
14.7.2	8.3.1	EM&A of waste handling, storage,	All areas/	Contractor	TMEIA		Y		N/A	Ongoing
Section 5		transportation, disposal procedures and	throughout							
		documentation through the site audit	construction							
		programme shall be undertaken.	period							

Annex F

QA/QC Results for Laboratory Testing of Suspended Solids

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

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CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG : ALS Technichem HK Pty Ltd Page : 1 of 5

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 01-JAN-2009

FACILITY

Order number : ---- Date of issue : 06-JAN-2009

C-O-C number : --- No. of samples - Received : 74

+852 2610 2021

Site : --- - Analysed : 74

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824185 supersedes any previous reports with this reference. The completion date of analysis is 03-JAN-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 HK0824185: Sample(s) were collected by ALS Technichem (HK) staff on 01 January, 2009.

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

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of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Client : ERM HONG KONG

Work Order HK0824185



Laboratory Duplicate (DUP) Report

Matrix: WATER					Labo	ratory Duplicate (DUP) i	Report	
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and	d Aggregate Properties	s (QC Lot: 855588)						
HK0824185-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0
HK0824185-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0
EA/ED: Physical and	d Aggregate Properties	s (QC Lot: 855589)						
HK0824185-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0
HK0824185-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0
EA/ED: Physical and	d Aggregate Properties	s (QC Lot: 855590)						
HK0824185-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0
HK0824185-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	17.4
EA/ED: Physical and	d Aggregate Properties	s (QC Lot: 855591)						
HK0824185-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0
HK0824185-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0

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

Matrix: WATER		Method Blank (MB) Report				Laboratory Control S	Spike (LCS) and Laborate	ory Control S	pike Duplicat	te (DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound C	AS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot:	855588)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	855589)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	89.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	855590)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	855591)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 5
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FACILITY

Order number : ---- Date of issue : 07-JAN-2009

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824180 supersedes any previous reports with this reference. The completion date of analysis is 06-JAN-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 HK0824180: Sample(s) were collected by ALS Technichem (HK) staff on 02 January, 2009.

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

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of Hong Kong. Chapter 553. Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Client : ERM HONG KONG

Work Order HK0824180



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856764)									
HK0824180-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
HK0824180-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856765)									
HK0824180-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
HK0824180-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856766)									
HK0824180-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0824180-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856767)									
HK0824180-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0824180-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			

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

						. , .					
Matrix: WATER			Method Blank (Mi	B) Report		Laboratory Control S	pike (LCS) and Laborate	ory Control S	pike Duplica	te (DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound CA	AS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot:	856764)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856765)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856766)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856767)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 03-JAN-2009

FACILITY

Order number : ---- Date of issue : 07-JAN-2009

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824178 supersedes any previous reports with this reference. The completion date of analysis is 06-JAN-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 HK0824178: Sample(s) were collected by ALS Technichem (HK) staff on 03 January, 2009.

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

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Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Page Number

: 5 of 5

Client : ERM HONG KONG

Work Order HK0824178



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856757)									
HK0824178-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0			
HK0824178-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856759)									
HK0824178-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	8	7	14.0			
HK0824178-047	C2 (NM5) B ME	EA025: Suspended Solids (SS)		1	mg/L	6	5	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856762)									
HK0824178-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0824178-074	IMO2 S DUP MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	22.5			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856763)									
HK0824178-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0824178-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0			

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

			-								
Matrix: WATER	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report							
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)	
Method: Compound CAS Number	r LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QCLot: 856757)										
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	106		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 856759											
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	95.0		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 856762											
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	96.0		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 856763											
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	100		85	115			

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

· ERM HONG KONG : ALS Technichem HK Pty Ltd Client Laboratory Page : 1 of 5

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : 04-JAN-2009 Date received

FACILITY

Date of issue : 07-JAN-2009 Order number

C-O-C number 74 No. of samples Received

74 Analysed Site

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0822951 supersedes any previous reports with this reference. The completion date of analysis is 06-JAN-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.

Sample(s) were collected by ALS Technichem (HK) staff on 04 January, 2009. Specific comments for Work Order HK0822951:

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

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of Hong Kong. Chapter 553. Section 6.

Position Authorised results for:-Signatory

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

Client : ERM HONG KONG

Work Order HK0822951



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856853)									
HK0822951-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0822951-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856854)									
HK0822951-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
HK0822951-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856855)									
HK0822951-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0			
HK0822951-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 856856)									
HK0822951-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0822951-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0			

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

Matrix: WATER			Method Blank (ME	3) Report		Laboratory Control S	pike (LCS) and Laborate	ory Control S	pike Duplicat	te (DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound CA	S Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot:	856853)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	93.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856854)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856855)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	856856)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

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74

CERTIFICATE OF ANALYSIS

· ERM HONG KONG : ALS Technichem HK Pty Ltd Client Laboratory Page : 1 of 5

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : 05-JAN-2009 Date received

FACILITY

Date of issue : 08-JAN-2009 Order number

C-O-C number No. of samples Received

74 Analysed Site

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Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0823728 supersedes any previous reports with this reference. The completion date of analysis is 07-JAN-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.

Sample(s) were collected by ALS Technichem (HK) staff on 05 January, 2009. Specific comments for Work Order HK0823728:

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

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Position Authorised results for:-Signatory

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

Client : ERM HONG KONG

Work Order HK0823728



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 857370)									
HK0823728-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0823728-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 857371)									
HK0823728-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0823728-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 857372)									
HK0823728-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	3	3	0.0			
HK0823728-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 857373)									
HK0823728-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0823728-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	5	4	0.0			

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

Matrix: WATER			Method Blank (ME	B) Report		Laboratory Control S	pike (LCS) and Laborate	CS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)		
Method: Compound C	AS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Properties (QCLot:	857370)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115				
EA/ED: Physical and Aggregate Properties (QCLot:	857371)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115				
EA/ED: Physical and Aggregate Properties (QCLot:	857372)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	91.5		85	115				
EA/ED: Physical and Aggregate Properties (QCLot:	857373)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115				

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

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Date received

: 06-JAN-2009

HK0823734

: 1 of 5

Date of issue No. of samples

Page

Work Order

: 09-JAN-2009

Received Analysed 74 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0823734 supersedes any previous reports with this reference. The completion date of analysis is 08-JAN-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 HK0823734:

Sample(s) were collected by ALS Technichem (HK) staff on 06 January, 2009.

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

Laboratory

E-mail

Quote number

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Signatory

Fung Lim Chee, Richard

Position

Authorised results for:-

General Manager

Inorganics

Client : ERM HONG KONG

Work Order HK0823734



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 858398)										
HK0823734-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0				
HK0823734-014	MPB2 S DUP ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 858399)										
HK0823734-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				
HK0823734-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 858400)										
HK0823734-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0823734-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	4	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 858401)										
HK0823734-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0823734-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	6	5	0.0				

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

Matrix: WATER			Method Blank (ME	3) Report		Laboratory Control S	pike (LCS) and Laborato				
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound CA	S Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 8	358398)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	87.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 8	358399)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	91.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 8	358400)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 8	358401)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	106		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

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Project : EM&A FOR THE PERMANENT AVIATION FUEL

FACILITY

Order number : ----

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Date received

Page

Work Order

: 07-JAN-2009

HK0824184

Date of issue
No. of samples

: 12-JAN-2009

Received

: 1 of 5

74

Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824184 supersedes any previous reports with this reference. The completion date of analysis is 09-JAN-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 HK0824184:

Sample(s) were collected by ALS Technichem (HK) staff on 07 January, 2009.

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

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Signatory

Position

Authorised results for:-

Fung Lim Chee, Richard

General Manager

Inorganics

Page Number :

Client

: 5 of 5

: ERM HONG KONG

Work Order HK0824184



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 859382)										
HK0824184-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0824184-014	MPB2 S DUP ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	16.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 859383)										
HK0824184-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				
HK0824184-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 859384)										
HK0824184-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0824184-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 859385)										
HK0824184-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	10	23.2				
HK0824184-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	6	16.3				

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

	-				· · ·							
Matrix: WATER		Method Blank (Mi	B) Report		Laboratory Control S	pike (LCS) and Laborate	oratory Control Spike Duplicate (DCS) Report					
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)		
Method: Compound CAS Numb	r LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Properties (QCLot: 859382)											
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	96.0		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 859383												
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	95.0		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 859384												
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	93.5		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 859385												
EA025: Suspended Solids (SS)	- 2	mg/L	<2	20 mg/L	96.0		85	115				

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



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Project : EM&A FOR THE PERMANENT AVIATION FUEL

FACILITY

Order number

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: 08-JAN-2009 Date received

Page

Work Order

: 1 of 5

HK0824182

Date of issue : 13-JAN-2009 No. of samples

Received Analysed 74 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824182 supersedes any previous reports with this reference. The completion date of analysis is 12-JAN-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 HK0824182:

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

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

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Signatory

Position

Authorised results for:-

Fung Lim Chee, Richard

General Manager

Inorganics

Client : ERM HONG KONG

Work Order HK0824182



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 860008)										
HK0824182-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0				
HK0824182-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 860009)										
HK0824182-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0824182-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 860010)										
HK0824182-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
HK0824182-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 860011)										
HK0824182-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0824182-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				

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

		-				· · ·					
Matrix: WATER		Method Blank (MB) Report				Laboratory Control S	pike (LCS) and Laborate	ory Control S	pike Duplicat	te (DCS) Report	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound CAS No.	ımber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 860	008)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	103		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 860	009)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 860	010)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	104		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 860	011)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



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Order number

C-O-C number Site

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Quote number

Date received

Page

Work Order

: 09-JAN-2009

HK0824179

: 1 of 5

Date of issue : 14-JAN-2009

No. of samples

Received Analysed

74

74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824179 supersedes any previous reports with this reference. The completion date of analysis is 12-JAN-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 HK0824179:

Sample(s) were collected by ALS Technichem (HK) staff on 09 January, 2009.

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

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Signatory

Position

Authorised results for:-

Fung Lim Chee, Richard

General Manager

Inorganics

Client : ERM HONG KONG

Work Order HK0824179



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 860048)									
HK0824179-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0			
HK0824179-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 860049)									
HK0824179-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0			
HK0824179-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 860050)									
HK0824179-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	6	17.3			
HK0824179-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	9	10	0.0			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 860051)									
HK0824179-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	11	10	9.6			
HK0824179-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0			

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

	-			-	<u>-</u>	· · ·						
Matrix: WATER			Method Blank (ME	Method Blank (MB) Report Laboratory Control Spike (LCS) and Laboratory Control S					rol Spike Duplicate (DCS) Report			
					Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPD	5 (%)	
Method: Compound CAS N	lumber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QCLot: 860	0048)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 860	0049)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 860	0050)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.0		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 860	0051)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.0		85	115			

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

+852 2723 5660



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900246

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 10-JAN-2009

FACILITY

Order number : --- Date of issue : 14-JAN-2009

C-O-C number : --- No. of samples - Received : 74

+852 2610 2021

Site : --- - Analysed : 74

Report Comments

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900246 supersedes any previous reports with this reference. The completion date of analysis is 13-JAN-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 HK0900246: Sample(s) were collected by ALS Technichem (HK) staff on 10 January, 2009.

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

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Electronic signing has been carried out in compliance with procedures specified in the 'Electronic Transactions Ordinance' of Hong Chapter 552, Section 6

of Hong Kong, Chapter 553, Section 6.

Signatory Position Authorised results for:-

Fung Lim Chee, Richard General Manager Inorganics

Client : ERM HONG KONG

Work Order HK0900246



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861502)										
HK0900246-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	12.1				
HK0900246-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861503)										
HK0900246-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0				
HK0900246-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	8	7	15.6				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861504)										
HK0900246-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
HK0900246-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861505)										
HK0900246-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	9	12.0				
HK0900246-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	9	10	0.0				

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

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Matrix: WATER			Method Blank (MI	3) Report		Laboratory Control S	pike (LCS) and Laborate	and Laboratory Control Spike Duplicate (DCS) Report					
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)		
Method: Compound CAS	Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit		
EA/ED: Physical and Aggregate Properties (QCLot: 86	31502)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	95.5		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 86	61503)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 86	31504)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.0		85	115				
EA/ED: Physical and Aggregate Properties (QCLot: 86	31505)												
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115				

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG
Contact : MS KAREN LUI

REN LUI Contact

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Project : EM&A FOR THE PERMANENT AVIATION FUEL

FACILITY

Order number : ----

C-O-C number : ----

Site :

Address

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Quote number : ----

E-mail

Date received :

Page

Work Order

: 11-JAN-2009

HK0900244

: 1 of 5

Date of issue : 14-JAN-2009

No. of samples - Received

: 74

Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900244 supersedes any previous reports with this reference. The completion date of analysis is 13-JAN-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 HK0900244:

Sample(s) were collected by ALS Technichem (HK) staff on 11 January, 2009.

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

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Signatory

Position

Authorised results for:-

Fung Lim Chee, Richard

General Manager

Inorganics

Client : ERM HONG KONG

Work Order HK0900244



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861498)										
HK0900244-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	9	8	16.1				
HK0900244-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861499)										
HK0900244-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0				
HK0900244-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861500)										
HK0900244-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0				
HK0900244-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 861501)										
HK0900244-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	12	11	11.2				
HK0900244-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				

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

_				<u> </u>						
		Method Blank (ME	3) Report		Laboratory Control S	pike (LCS) and Laborato	ory Control S	pike Duplicat	te (DCS) Report	
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
mber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
198)										
	2	mg/L	<2	20 mg/L	106		85	115		
199)										
	2	mg/L	<2	20 mg/L	100		85	115		
500)										
	2	mg/L	<2	20 mg/L	100		85	115		
501)										
	2	mg/L	<2	20 mg/L	94.5		85	115		
	499) 500) 501)	498)	######################################	498) 2 mg/L <2 499) 2 mg/L <2 500) 2 mg/L <2 501)	Spike Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Spik	Spike Spike Red Spike Red	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery (mber LOR Unit Result Concentration LCS DCS Low	Spike Spike Recovery (%) Recovery Limits (%) Imber LOR Unit Result Concentration LCS DCS Low High	Spike Spike Recovery (%) Recovery Limits (%) RPDs

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem HK Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900245

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 12-JAN-2009

FACILITY

Order number : ---- Date of issue : 15-JAN-2009

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900245 supersedes any previous reports with this reference. The completion date of analysis is 13-JAN-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 HK0900245: Sample(s) were collected by ALS Technichem (HK) staff on 12 January, 2009.

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

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0900245



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 861865)									
HK0900245-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
HK0900245-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 861866)									
HK0900245-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0			
HK0900245-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	9	8	11.9			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 861867)									
HK0900245-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
HK0900245-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0			
EA/ED: Physical and	Aggregate Properties (QC	Lot: 861868)									
HK0900245-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0			
HK0900245-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0			

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

	-		-	<u>-</u>						
	Method Blank (MB) Report				Laboratory Control S	pike (LCS) and Laborate	ory Control S	pike Duplica	te (DCS) Report	
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
ber LOI	₹	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
5)										
2		mg/L	<2	20 mg/L	97.0		85	115		
6)										
2		mg/L	<2	20 mg/L	104		85	115		
7)										
2		mg/L	<2	20 mg/L	100		85	115		
8)										
2		mg/L	<2	20 mg/L	95.0		85	115		
6	65) 2 660) 2 667) 2 668) 2	65) 2 66) 2 67) 2 68)	mber LOR Unit 65) 2 mg/L 66) 2 mg/L 67) 2 mg/L 68)	Description LOR	Spike Concentration Spike Concentration	Spike Spike Record Spike Recor	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery	Spike Spike Recovery (%) Recovery Limits (%)	Spike Spike Recovery (%) Recovery Limits (%) RPDs

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



74

CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 5
Contact : MS KAREN LUI : Wong Wai Man, Alice : Work Order : LIVE

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900248

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 13-JAN-2009

FACILITY

Order number : ---- Date of issue : 16-JAN-2009

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

Site : --- - - Analysed : 74

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900248 supersedes any previous reports with this reference. The completion date of analysis is 15-JAN-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 HK0900248: Sample(s) were collected by ALS Technichem (HK) staff on 13 January, 2009.

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

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approval from ALS Technichem (HK) Pty Ltd.

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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:-

Client : ERM HONG KONG

Work Order HK0900248



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties (0	QC Lot: 863084)										
HK0900248-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	13	14	0.0				
HK0900248-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	17	16	7.0				
EA/ED: Physical and	d Aggregate Properties (0	QC Lot: 863085)										
HK0900248-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	14	16	12.9				
HK0900248-044	C2 (NM5) S DUP ME	EA025: Suspended Solids (SS)		1	mg/L	12	15	17.3				
EA/ED: Physical and	d Aggregate Properties (0	QC Lot: 863086)										
HK0900248-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	15	13	17.1				
HK0900248-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	13	14	0.0				
EA/ED: Physical and	d Aggregate Properties (0	QC Lot: 863087)										
HK0900248-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	12	13	7.9				
HK0900248-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	14	14	0.0				

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

Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report							
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPD	s (%)	
Method: Compound CAS I	Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QCLot: 86	3084)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	106		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 86	3085)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	110		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 86	3086)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	91.0		85	115			
EA/ED: Physical and Aggregate Properties (QCLot: 86	3087)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115			

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



74

CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG : ALS Technichem HK Pty Ltd Page : 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900249

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 14-JAN-2009

FACILITY

Order number : ---- Date of issue : 19-JAN-2009

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

Site : ---- - Analysed : 74

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900249 supersedes any previous reports with this reference. The completion date of analysis is 16-JAN-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 HK0900249: Sample(s) were collected by ALS Technichem (HK) staff on 14 January, 2009.

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

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of Hong Kong, Chapter 553, Section 6.

Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0900249



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 864421)										
HK0900249-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0				
HK0900249-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 864422)										
HK0900249-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
HK0900249-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 864425)										
HK0900249-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
HK0900249-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 864429)										
HK0900249-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0900249-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				

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

	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
			Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)		
er LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit	
)										
2	mg/L	<2	20 mg/L	94.0		85	115			
2)										
2	mg/L	<2	20 mg/L	102		85	115			
5)										
2	mg/L	<2	20 mg/L	99.5		85	115			
))										
2	mg/L	<2	20 mg/L	108		85	115			
2	ber LOR 1) 2 2) 2 5) 2 9)	ber LOR Unit 1) 2 mg/L 2) 2 mg/L 5) 2 mg/L 9)	ber LOR Unit Result 1) 2 mg/L <2 2) 2 mg/L <2 5) 2 mg/L <2 9)	Spike Concentration Spike Concentration	Spike Spike Spike Record Spike Spike Record Spike Spike Record Spike Record Spike Spike Spike Record Spike Spike Spike Record Spike Spike Record Spike Spike Spike Record Spike S	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery	Spike Spike Recovery (%) Recovery Limits (%)	Spike Spike Recovery (%) Recovery Limits (%) RPDs	

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 5
Contact : MS KAREN LUI : Wong Wai Man, Alice : Work Order : LIVE

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0824183

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date received : 15-JAN-2009

FACILITY

Order number : ---- Date of issue : 20-JAN-2009

C-O-C number : ---- No. of samples - Received : 98

Site : --- - - Analysed : 98

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0824183 supersedes any previous reports with this reference. The completion date of analysis is 19-JAN-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 HK0824183: Sample(s) were collected by ALS Technichem (HK) staff on 15 January, 2009.

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

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0824183



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 866068)										
HK0824183-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	13	13	0.0				
HK0824183-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	16	16	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 866069)										
HK0824183-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	18	17	0.0				
HK0824183-033	IMO3 M ME	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 866070)										
HK0824183-043	C2 (NM5) S ME	EA025: Suspended Solids (SS)		1	mg/L	17	17	0.0				
HK0824183-055	MPB1 S MF	EA025: Suspended Solids (SS)		1	mg/L	14	14	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 866071)										
HK0824183-065	MPB2 B MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
HK0824183-075	IMO2 M MF	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 866072)										
HK0824183-085	IMO4 S MF	EA025: Suspended Solids (SS)		1	mg/L	21	21	0.0				
HK0824183-095	C1 (NM3) B MF	EA025: Suspended Solids (SS)		1	mg/L	13	13	0.0				

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

Matrix: WATER		Method Blank (MB) Report Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report									
					Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCL	ot: 866068)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	92.5		85	115		
EA/ED: Physical and Aggregate Properties (QCL	ot: 866069)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Properties (QCL	ot: 866070)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.0		85	115		
EA/ED: Physical and Aggregate Properties (QCL	ot: 866071)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115		
EA/ED: Physical and Aggregate Properties (QCL	ot: 866072)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	96.5		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem HK Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0823729

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 16-JAN-2009

FACILITY

Order number : ---- Date of issue : 21-JAN-2009

C-O-C number : --- No. of samples - Received : 98

Site : --- - - Analysed : 98

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0823729 supersedes any previous reports with this reference. The completion date of analysis is 20-JAN-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 HK0823729: Sample(s) were collected by ALS Technichem (HK) staff on 16 January, 2009.

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

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0823729



Laboratory Duplicate (DUP) Report

, ,	, , ,		_										
Matrix: WATER				Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867969)											
HK0823729-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	15	15	0.0					
HK0823729-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	14	14	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867970)											
HK0823729-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0					
HK0823729-033	IMO3 M ME	EA025: Suspended Solids (SS)		1	mg/L	12	11	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867971)											
HK0823729-043	C2 (NM5) S ME	EA025: Suspended Solids (SS)		1	mg/L	9	9	0.0					
HK0823729-055	MPB1 S MF	EA025: Suspended Solids (SS)		1	mg/L	19	20	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867972)											
HK0823729-065	MPB2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0					
HK0823729-075	IMO2 M MF	EA025: Suspended Solids (SS)		1	mg/L	12	12	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867973)											
HK0823729-085	IMO4 S MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0					
HK0823729-095	C1 (NM3) B MF	EA025: Suspended Solids (SS)		1	mg/L	17	18	0.0					

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

Matrix: WATER	Method Blank (MB) Report Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report											
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867969)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115			
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867970)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115			
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867971)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115			
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867972)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115			
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867973)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	95.0		85	115			

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem HK Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900600

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 17-JAN-2009

FACILITY

Order number : ---- Date of issue : 21-JAN-2009

C-O-C number : ---- No. of samples - Received : 98

Site : --- - Analysed : 98

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900600 supersedes any previous reports with this reference. The completion date of analysis is 20-JAN-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 HK0900600: Sample(s) were collected by ALS Technichem (HK) staff on 17 January, 2009.

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

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Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0900600



Laboratory Duplicate (DUP) Report

	. , ,		Г		1-1-		3 4					
Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867983)										
HK0900600-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
HK0900600-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867984)										
HK0900600-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0				
HK0900600-033	IMO3 M ME	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867985)										
HK0900600-043	C2 (NM5) S ME	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
HK0900600-055	MPB1 S MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867986)										
HK0900600-065	MPB2 B MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
HK0900600-075	IMO2 M MF	EA025: Suspended Solids (SS)		1	mg/L	10	10	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867987)										
HK0900600-085	IMO4 S MF	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0				
HK0900600-095	C1 (NM3) B MF	EA025: Suspended Solids (SS)		1	mg/L	11	11	0.0				

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

Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Re	ecovery (%)	Recovery	Limits (%)	RPD	s (%)
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867983)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	106		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867984)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867985)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867986)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115		
EA/ED: Physical and Aggregate Properties (QCLo	ot: 867987)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	110		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

· ERM HONG KONG Client Contact

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Project

: EM&A FOR THE PERMANENT AVIATION FUEL

FACILITY

Order number

C-O-C number Site

Laboratory

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Date received

No. of samples

Page

Work Order

: 18-JAN-2009

HK0900594

: 1 of 5

Date of issue

: 21-JAN-2009

Received Analysed 98 98

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900594 supersedes any previous reports with this reference. The completion date of analysis is 20-JAN-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 HK0900594:

Sample(s) were collected by ALS Technichem (HK) staff on 18 January, 2009.

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

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Signatory

Position

Authorised results for:-

Fung Lim Chee, Richard

General Manager

Inorganics

Client : ERM HONG KONG

Work Order HK0900594



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867977)										
HK0900594-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0900594-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867978)										
HK0900594-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0900594-033	IMO3 M ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867979)										
HK0900594-043	C2 (NM5) S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0				
HK0900594-055	MPB1 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867980)										
HK0900594-065	MPB2 B MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0				
HK0900594-075	IMO2 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 867981)										
HK0900594-085	IMO4 S MF	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0				
HK0900594-095	C1 (NM3) B MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				

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

Matrix: WATER			Method Blank (MI	(MB) Report Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report							
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLc	ot: 867977)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	92.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLc	ot: 867978)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLc	ot: 867979)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLc	ot: 867980)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	110		85	115		
EA/ED: Physical and Aggregate Properties (QCLc	ot: 867981)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : 19-JAN-2009 Date received

FACILITY

Date of issue : 22-JAN-2009 Order number

C-O-C number Received

74 No. of samples 74 Analysed Site

Report Comments

E-mail

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900597 supersedes any previous reports with this reference. The completion date of analysis is 21-JAN-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.

Sample(s) were collected by ALS Technichem (HK) staff on 19 January, 2009. Specific comments for Work Order HK0900597:

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

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of Hong Kong, Chapter 553, Section 6.

Position Authorised results for:-Signatory

Page

: 1 of 5

Client : ERM HONG KONG

Work Order HK0900597



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	Aggregate Properties	(QC Lot: 869883)									
HK0900597-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	0.0			
HK0900597-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	6	5	0.0			
EA/ED: Physical and	Aggregate Properties	(QC Lot: 869884)									
HK0900597-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0900597-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0			
EA/ED: Physical and	Aggregate Properties	(QC Lot: 869885)									
HK0900597-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0900597-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	4	0.0			
EA/ED: Physical and	Aggregate Properties	(QC Lot: 869886)									
HK0900597-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0			
HK0900597-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	4	5	0.0			

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

-					· · ·					
	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	5 (%)
umber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
9883)										
	2	mg/L	<2	20 mg/L	103		85	115		
9884)										
	2	mg/L	<2	20 mg/L	91.5		85	115		
9885)										
	2	mg/L	<2	20 mg/L	104		85	115		
9886)										
	2	mg/L	<2	20 mg/L	110		85	115		
	9883) 9884) 9885) 	9883)	LOR	Unit Result	Spike Concentration Spike Concentration Spike Spike	Spike Spike Recommend Spike Spike Recommend Spike Spike Recommend Spik	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery	Spike Spike Recovery (%) Recovery Limits (%)	Spike Spike Recovery (%) Recovery Limits (%) RPDs

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem HK Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900595

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Project: EM&A FOR THE PERMANENT AVIATION FUEL Quote number: ---- Date received: 20-JAN-2009

FACILITY

Order number : ---- Date of issue : 23-JAN-2009

C-O-C number : --- No. of samples - Received : 74

Site : --- - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900595 supersedes any previous reports with this reference. The completion date of analysis is 21-JAN-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 HK0900595: Sample(s) were collected by ALS Technichem (HK) staff on 20 January, 2009.

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

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of Hong Kong, Chapter 553, Section 6.

Signatory Position Authorised results for:-

Client : ERM HONG KONG

Work Order HK0900595



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 870033)										
HK0900595-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	7	6	0.0				
HK0900595-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	9	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 870034)										
HK0900595-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0				
HK0900595-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 870035)										
HK0900595-058	MPB1 M DUP MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0900595-068	IMO1 S DUP MF	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0				
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 870036)										
HK0900595-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	7	6	17.7				
HK0900595-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	7	8	0.0				

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

-			-		· · · ·					
	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
				Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPD	5 (%)
Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
70033)										
	2	mg/L	<2	20 mg/L	100		85	115		
70034)										
	2	mg/L	<2	20 mg/L	110		85	115		
70035)										
	2	mg/L	<2	20 mg/L	110		85	115		
70036)										
	2	mg/L	<2	20 mg/L	92.0		85	115		
	70033) 70034) 70035) 70036)	70033)	Number LOR Unit 70033) 2 mg/L 70034) 2 mg/L 70035) 2 mg/L 70036)	Number LOR Unit Result 70033) 2 mg/L <2 70034) 2 mg/L <2 70035) 2 mg/L <2 70036)	Spike Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Concentration Spike Spike	Spike Spike Rec	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery	Spike Spike Recovery (%) Recovery Limits (%)	Spike Spike Recovery (%) Recovery Limits (%) RPDs

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client: ERM HONG KONG Laboratory: ALS Technichem HK Pty Ltd Page: 1 of 5

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0900251

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date received : 21-JAN-2009

FACILITY

Order number : ---- Date of issue : 29-JAN-2009

C-O-C number : ---- No. of samples - Received : 74

Site : --- - - Analysed : 74

Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900251 supersedes any previous reports with this reference. The completion date of analysis is 23-JAN-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 HK0900251: Sample(s) were collected by ALS Technichem (HK) staff on 21 January, 2009.

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

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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:-

Client : ERM HONG KONG

Work Order HK0900251



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report									
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 871846)											
HK0900251-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0					
HK0900251-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	6	7	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 871847)											
HK0900251-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	5	6	17.3					
HK0900251-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	8	8	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 871848)											
HK0900251-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0					
HK0900251-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0					
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 871849)											
HK0900251-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0					
HK0900251-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	6	5	0.0					

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

	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	s (%)
nber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
46)										
	2	mg/L	<2	20 mg/L	96.5		85	115		
47)										
	2	mg/L	<2	20 mg/L	100		85	115		
48)										
	2	mg/L	<2	20 mg/L	104		85	115		
49)										
	2	mg/L	<2	20 mg/L	98.0		85	115		
3	347) 348) 349)	346) 2 347) 2 348) 2	mber LOR Unit 346) 2 mg/L 347) 2 mg/L 348) 2 mg/L	mber LOR Unit Result 346) 2 mg/L <2 347) 2 mg/L <2 348) 2 mg/L <2 349)	Spike Concentration Concentratio	Spike Spike Recomber LOR Unit Result Concentration LCS	Spike Spike Recovery (%)	Spike Spike Recovery (%) Recovery (mber LOR Unit Result Concentration LCS DCS Low	Spike Spike Recovery (%) Recovery Limits (%)	Spike Spike Recovery (%) Recovery Limits (%) RPDs

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



74

CERTIFICATE OF ANALYSIS

· ERM HONG KONG : ALS Technichem HK Pty Ltd Client Laboratory Page : 1 of 5

: MS KAREN LUI : Wong Wai Man, Alice Work Order Contact Contact HK0900250 Address : 21/F, LINCOLN HOUSE, 979 KING'S ROAD, Address : 11/F., Chung Shun Knitting Centre,

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : 22-JAN-2009 Date received

FACILITY

Date of issue : 30-JAN-2009 Order number

C-O-C number No. of samples Received

74 Analysed Site

+852 2610 2021

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900250 supersedes any previous reports with this reference. The completion date of analysis is 24-JAN-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.

Sample(s) were collected by ALS Technichem (HK) staff on 22 January, 2009. Specific comments for Work Order HK0900250:

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

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Position Authorised results for:-Signatory

Client : ERM HONG KONG

Work Order HK0900250



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report								
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)				
EA/ED: Physical and	d Aggregate Properties (C	QC Lot: 872766)										
HK0900250-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
HK0900250-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
EA/ED: Physical and	d Aggregate Properties (C	QC Lot: 872767)										
HK0900250-023	IMO1 B ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
HK0900250-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0				
EA/ED: Physical and	d Aggregate Properties (C	QC Lot: 872768)										
HK0900250-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0				
HK0900250-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				
EA/ED: Physical and	d Aggregate Properties (C	QC Lot: 872769)										
HK0900250-091	C1 (NM3) S MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0				
HK0900250-100	C3 (NM6) M DUP MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0				

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

Matrix: WATER		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPD)s (%)
Method: Compound CA	S Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot:	872766)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	872767)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	108		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	872768)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.0		85	115		
EA/ED: Physical and Aggregate Properties (QCLot:	872769)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		

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

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

+852 2723 5660



CERTIFICATE OF ANALYSIS

· ERM HONG KONG : ALS Technichem HK Pty Ltd Client Laboratory Page : 1 of 5

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : 23-JAN-2009 Date received

FACILITY

Date of issue : 02-FEB-2009 Order number

C-O-C number 74 No. of samples Received

74 Analysed Site

+852 2610 2021

Report Comments

E-mail

Facsimile

This report for ALS Technichem (HK) Pty Ltd work order reference HK0900596 supersedes any previous reports with this reference. The completion date of analysis is 24-JAN-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.

Sample(s) were collected by ALS Technichem (HK) staff on 23 January, 2009. Specific comments for Work Order HK0900596:

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

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Position Authorised results for:-Signatory

Client : ERM HONG KONG

Work Order HK0900596



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 872770)									
HK0900596-001	MP S ME	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0			
HK0900596-013	MPB2 S ME	EA025: Suspended Solids (SS)		1	mg/L	8	7	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 872771)									
HK0900596-024	IMO1 B DUP ME	EA025: Suspended Solids (SS)		1	mg/L	7	7	0.0			
HK0900596-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 872772)									
HK0900596-057	MPB1 M MF	EA025: Suspended Solids (SS)		1	mg/L	4	4	0.0			
HK0900596-067	IMO1 S MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
EA/ED: Physical and	d Aggregate Properties	(QC Lot: 872773)									
HK0900596-077	IMO2 B MF	EA025: Suspended Solids (SS)		1	mg/L	5	5	0.0			
HK0900596-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)		1	mg/L	6	6	0.0			

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

					<u>-</u>						
Matrix: WATER			Method Blank (ME	3) Report	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
Method: Compound CAS Nu	mber	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QCLot: 872)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 872)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	99.5		85	115		
EA/ED: Physical and Aggregate Properties (QCLot: 872)	772)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	98.5		85	115		
A/ED: Physical and Aggregate Properties (QCLot: 872773)											
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	100		85	115		

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

Annex G

Impact Water Quality Monitoring Results

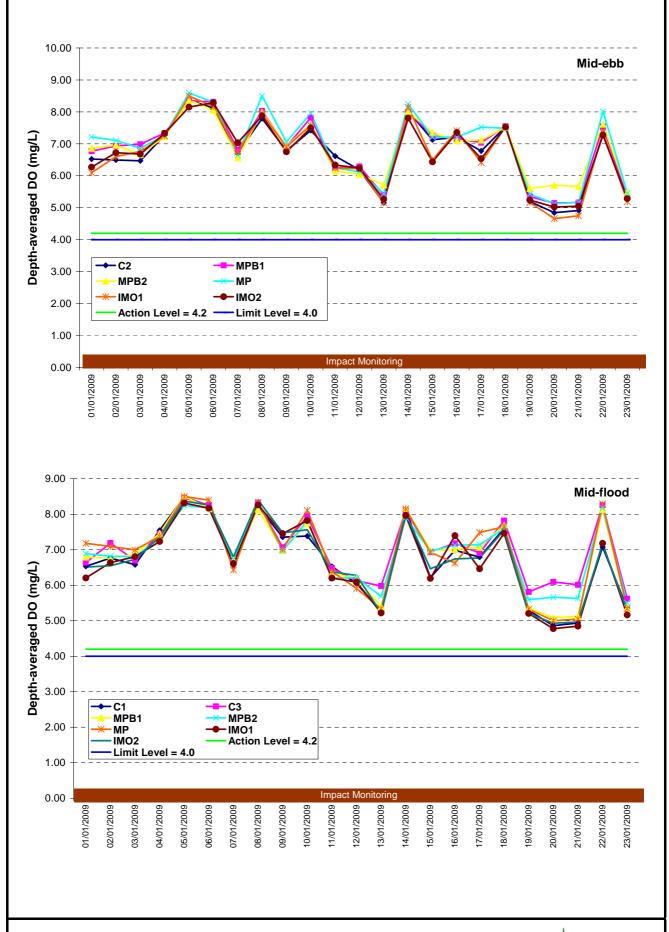


Figure G1 Dissolved oxygen concentration (depth-averaged) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 Jan to 31 Jan 09. No monitoring was conducted in from 24 Jan to 31 Jan since no dredging operation was undertaken.



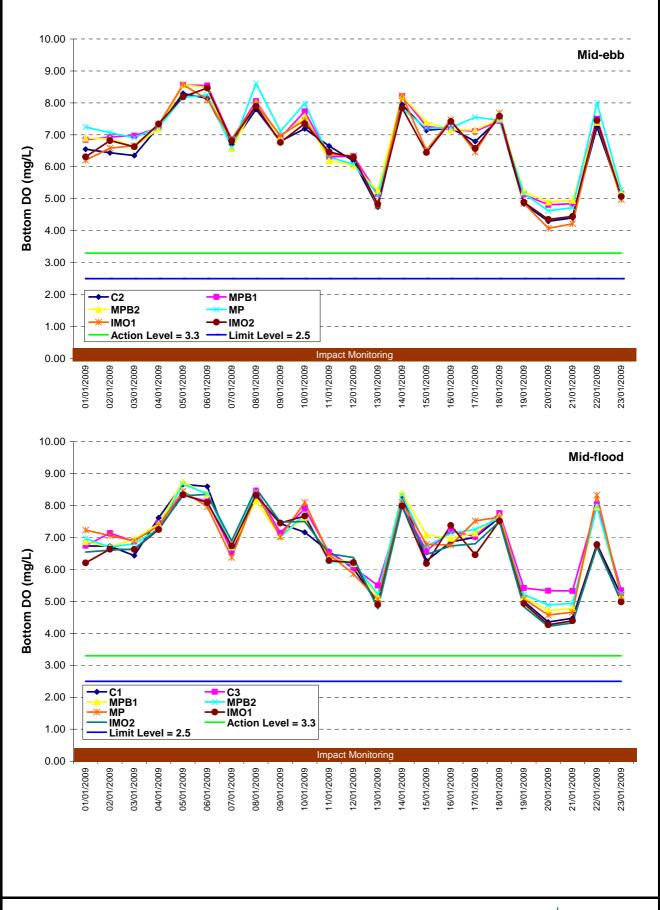


Figure G2 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 Jan to 31 Jan 09. No monitoring was conducted in from 24 Jan to 31 Jan since no dredging operation was undertaken.



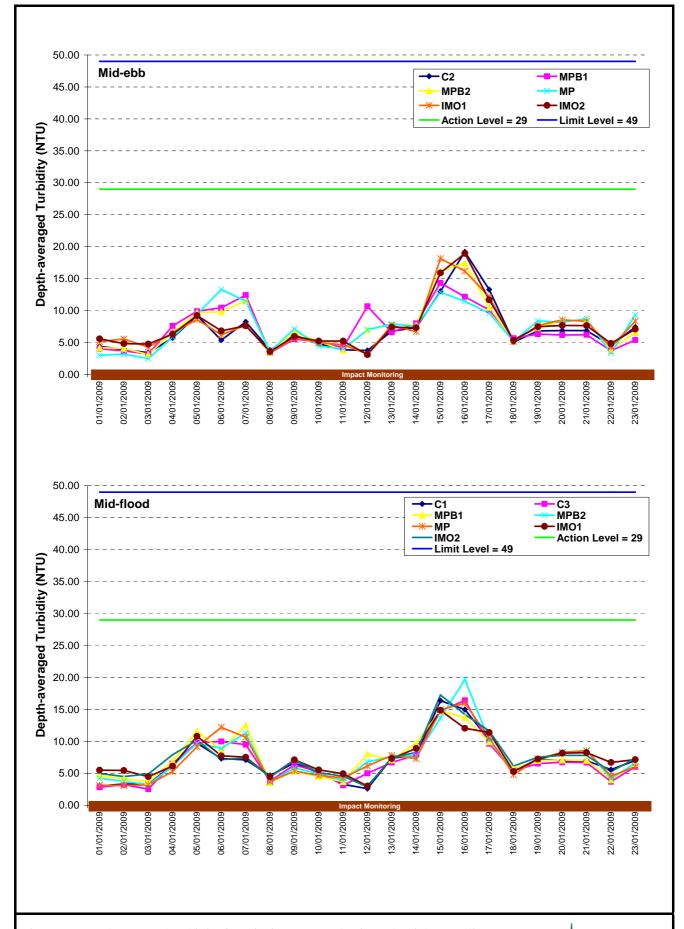


Figure G3 Depth-averaged turbidity (NTU) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 Jan to 31 Jan 09. No monitoring was conducted in from 24 Jan to 31 Jan since no dredging operation was undertaken.



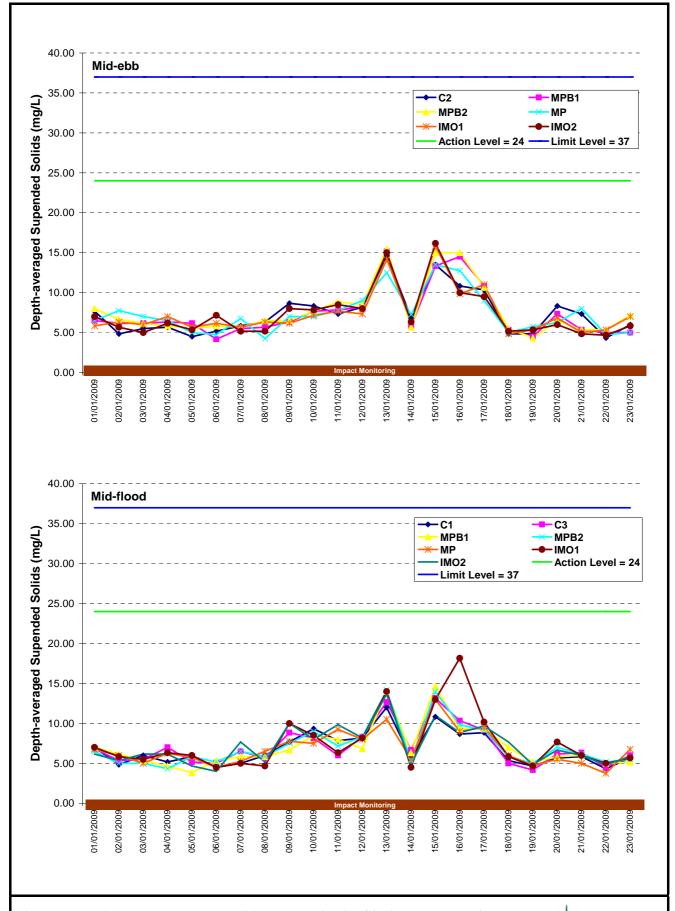


Figure G4 Depth-averaged suspended solids concentration (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 Jan to 31 Jan 09. No monitoring was conducted in from 24 Jan to 31 Jan since no dredging operation was undertaken.



Sampling Date	01/01/2009
Weather & Ambient Temperature	Fine, 15C

Station			C2 (NM5)			1	
Time (hh:mm)			15:42	-15:45				
Water Depth (m)			20	0.8				
Monitoring Depth (m)	1	.0	10).4	19	9.8		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.7	19.7	19.1	19.0	18.8	18.9	19.20	ı
Salinity (ppt)	23.9	24.0	29.0	29.1	30.2	30.2	27.74	-
pH	8.4	8.4	8.5	8.5	8.5	8.5	8.49	
D.O. Saturation (%)	98.0	96.9	94.2	93.0	97.5	97.3	96.15	-
D.O. (mg/L)	6.7	6.7	6.4	6.3	6.6	6.5	6.53	6.55
Turbidity (NTU)	3.6	3.5	4.40	-				
SS (mg/L)	8.0	6.0	7.67	1				
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	01			Co-ore	dinates
Time (hh:mm)			15:55	-15:57			Northing	Easting
Water Depth (m)			22.22.019	113.55.324				
Monitoring Depth (m)	1	.0	5	.3	9	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.4	19.3	18.9	18.9	18.4	18.4	18.88	-
Salinity (ppt)	29.8	29.7	31.2	31.2	31.7	31.7	30.86	-
pH	8.6	8.5	8.5	8.5	8.6	8.6	8.55	
D.O. Saturation (%)	95.3	93.5	87.4	86.8	92.1	92.6	91.28	-
D.O. (mg/L)	6.4	6.3	5.7	5.8	6.2	6.22	6.10	6.21
Turbidity (NTU)	4.2	4.4	5.3	5.2	5.8	6.0	5.15	-
SS (mg/L)	7.0	5.0	5.83	-				
Remarks			С	redging wor	ks was obse	rved.		

Station			IM	02			Co-ord	dinates			
Time (hh:mm)			16:08	-16:10			Northing	Easting			
Water Depth (m)			9	.8			22.21.794	113.55.786			
Monitoring Depth (m)	1	.0	4	.9	8	.8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	19.2	19.2	18.4	18.5	18.2	18.3	18.63	-			
Salinity (ppt)	29.4	29.3	31.1	31.1	31.8	31.7	30.71	-			
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.50				
D.O. Saturation (%)	94.9	93.7	92.0	91.9	94.2	93.2	93.32	-			
D.O. (mg/L)	6.3	6.3	6.2	6.2	6.3	6.29	6.27	6.31			
Turbidity (NTU)	4.8	4.6	5.5	5.4	6.5	6.7	5.58	-			
SS (mg/L)	8.0	6.0	7.0	7.0	6.0	7.00	-				
Remarks		Dredging works was observed.									

Mid-Ebb

Station			MF	PB1			1	
Time (hh:mm)			15:15	-15:17				
Water Depth (m)								
Monitoring Depth (m)	1	.0	3	.9	6	.8		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.8	19.7	19.4	19.4	19.2	19.2	19.45	-
Salinity (ppt)	23.9	24.0	26.1	26.2	27.6	27.7	25.90	-
pH	8.4	8.5	8.5	8.5	8.5	8.5	8.48	
D.O. Saturation (%)	99.1	98.7	97.8	98.2	100.1	101.3	99.20	-
D.O. (mg/L)	6.8	6.8	6.7	6.7	6.8	6.9	6.77	6.85
Turbidity (NTU)	3.3	3.5	4.2	4.1	4.6	4.5	4.03	-
SS (mg/L)	5.0	6.0	6.50	-				
Remarks			D	redging wor	ks was obse	rved.		

Station			M	PB2							
Time (hh:mm)			15:03	-15:06							
Water Depth (m)											
Monitoring Depth (m)	1	.0	4	.5	8	.0					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	19.7	19.7	19.6	19.6	19.6	19.6	19.61	-			
Salinity (ppt)	24.4	24.3	24.9	25.0	25.1	24.9	24.76	-			
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.48				
D.O. Saturation (%)	99.8	99.4	100.6	100.5	101.1	100.8	100.37	-			
D.O. (mg/L)	6.8	6.8	6.9	6.9	6.9	6.9	6.86	6.90			
Turbidity (NTU)	3.5	3.4	3.9	4.1	5.0	5.2	4.18	-			
SS (mg/L)	8.0	9.0	8.00	-							
Remarks		Dredging works was observed.									

Station		•	N	/IP			1	
Time (hh:mm)								
Water Depth (m)			5	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 (°C)	19.6	19.7	-	-	19.3	19.3	19.47	-
Salinity (ppt)	25.6	25.7		-	27.1	27.0	26.36	-
pH	8.5	8.5		-	8.5	8.5	8.50	
D.O. Saturation (%)	105.2	106.3	-	-	106.6	106.9	106.25	-
D.O. (mg/L)	7.2	7.2	-	-	7.2	7.3	7.22	7.25
Turbidity (NTU)	2.6	2.8	-	-	3.2	3.4	3.00	-
SS (mg/L)	6.0	6.0	6.50	-				
Remarks				redging wor	ks was obse	rved.	•	

Compliance with Action and Limit Level

Compliance with Action and Limit Level														
Parameter	As in	As in EM&A C2*130%		130% IMO1		IM	IMO2		MPB1	MF	PB2	MP		
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	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	5.7	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	10.0	10.0	N	N	N	N	N	N	Ν	N	N	N

Sampling Date	01/01/2009
Weather & Ambient Temperature	Fine, 15C

Station			C1 (NM3)				
Time (hh:mm)			10:26	-10:29				
Water Depth (m)			16					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	19.1	18.3	18.3	18.2	18.2	18.52	-
Salinity (ppt)	31.2	31.1	32.1	32.1	32.3	32.3	31.83	-
pH	8.3	8.3	8.3	8.4	8.4	8.3	8.33	
D.O. Saturation (%)	98.9	98.5	94.3	92.4	99.6	100.5	97.37	-
D.O. (mg/L)	6.6	6.6	6.3	6.2	6.7	6.8	6.53	6.74
Turbidity (NTU)	2.3	2.4	3.3	3.1	3.6	3.5	3.03	-
SS (mg/L)	6.0	7.0	6.0	7.00	-			
Remarks				Dredg	jing works w	as observed.		

Station			C3 (NM6)				
Time (hh:mm)			11:49	-11:51				
Water Depth (m)			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 (°C)	19.6	19.6	19.1	19.1	19.0	19.0	19.23	-
Salinity (ppt)	27.1	27.1	28.6	28.7	29.0	29.0	28.24	-
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.52	
D.O. Saturation (%)	98.5	97.4	96.8	96.9	99.4	99.9	98.15	-
D.O. (mg/L)	6.7	6.6	6.6	6.6	6.7	6.8	6.64	6.75
Turbidity (NTU)	2.3	2.4	2.8	2.9	3.2	3.3	2.82	-
SS (mg/L)	7.0	7.0	6.0	6.0	8.0	7.0	6.83	-
Remarks				Dredo	jing works w	as observed.		

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			10:52	-10:54			Northing	Easting			
Water Depth (m)			9	.6		22.21.798	113.55.781				
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	20.0	19.9	18.6	18.6	18.5	18.5	19.01	-			
Salinity (ppt)	30.1	30.0	31.1	31.2	31.6	31.6	30.95	-			
pH	8.5	8.5	8.5	8.5	8.6	8.6	8.56				
D.O. Saturation (%)	97.3	96.5	90.6	89.0	92.1	92.6	93.02	-			
D.O. (mg/L)	6.4	6.4	5.9	6.0	6.2	6.2	6.21	6.21			
Turbidity (NTU)	4.7	4.5	5.4	5.3	6.5	6.6	5.50	-			
SS (mg/L)	7.0 6.0 9.0 8.0 7.0 5.0						7.00	-			
Remarks		Dredging works was observed.									

Station			IM	02			Co-ordinate	s		
Time (hh:mm)			10:39	-10:41			Northing	Easting		
Water Depth (m)			10	0.4		22.22.014	113.55.321			
Monitoring Depth (m)	1	.0	5							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.3	19.4	18.6	18.6	18.4	18.4	18.77	-		
Salinity (ppt)	30.7	30.7	31.6	31.6	31.8	31.8	31.35	-		
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.50			
D.O. Saturation (%)	97.8	98.7	95.2	96.3	97.5	95.7	96.87	-		
D.O. (mg/L)	6.5	6.6	6.4	6.5	6.6	6.5	6.51	6.55		
Turbidity (NTU)	4.1	4.3	4.8	4.7	6.0	5.9	4.97	-		
SS (mg/L)	7.0	5.0	8.0	6.0	6.17	-				
Remarks		Dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			11:24	-11:27						
Water Depth (m)			8							
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 (°C)	19.9	19.9	19.5	19.6	19.3	19.3	19.58	-		
Salinity (ppt)	23.8	23.7	26.1	26.1	27.8	27.8	25.90	-		
pH	8.4	8.4	8.5	8.5	8.5	8.5	8.47			
D.O. Saturation (%)	99.9	98.5	97.9	98.7	101.3	101.1	99.57	-		
D.O. (mg/L)	6.9	6.8	6.7	6.7	6.9	6.9	6.80	6.87		
Turbidity (NTU)	3.8	3.5	4.6	4.5	5.8	5.5	4.62	-		
SS (mg/L)	6.0	7.0	7.0	8.0	7.0	7.0	7.00	-		
Remarks		Dredging works was observed.								

Station			MF	B2							
Time (hh:mm)			11:35	-11:37							
Water Depth (m)			9								
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 (°C)	19.9	19.9	19.6	19.6	19.5	19.5	19.65	-			
Salinity (ppt)	24.1	24.1	26.3	26.4	26.7	26.8	25.73	-			
pH	8.5	8.5	8.5	8.5	8.5	8.5	8.49				
D.O. Saturation (%)	99.9	99.7	100.6	101.0	101.9	103.1	101.03	-			
D.O. (mg/L)	6.9	6.8	6.9	6.9	6.9	7.0	6.89	6.98			
Turbidity (NTU)	3.7	3.8	4.2	4.1	4.9	4.6	4.22	-			
SS (mg/L)	6.0	7.0	6.0	7.0	6.0	7.0	6.50	-			
Remarks		Dredging works was observed.									

Station			IV	IP							
Time (hh:mm)			11:15	-15:16							
Water Depth (m)			5								
Monitoring Depth (m)	1.	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.8	19.9	-	-	19.5	19.5	19.67	-			
Salinity (ppt)	25.4	25.2	-	-	26.4	26.3	25.81	-			
pH	8.5	8.5	-	-	8.5	8.5	8.49				
D.O. Saturation (%)	103.5	104.6	-	-	106.2	106.7	105.25	-			
D.O. (mg/L)	7.1	7.1	-	-	7.2	7.3	7.18	7.24			
Turbidity (NTU)	2.7	2.6	-	-	3.5	3.7	3.13	-			
SS (mg/L)	7.0	8.0	-	-	6.0	6.0	6.75	-			
Remarks		Dredging works was observed.									

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2			MPB1	MF	PB2 M		/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.7	6.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.6	6.6	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	3.8	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	9.0	9.0	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	02/01/2009
Weather & Ambient Temperature	Sunny, 16C

Station	1		C2 (NM5)			1	
			<u> </u>					
Time (hh:mm)			16:26	-16:29				
Water Depth (m)			20	0.6				
Monitoring Depth (m)	1	.0	10	0.3	19	9.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.5	18.5	19.2	19.2	19.1	19.1	18.92	-
Salinity (ppt)	28.8	28.8	31.8	31.9	32.3	32.3	30.99	-
pH	8.3	8.3	8.3	8.4	8.3	8.3	8.33	
D.O. Saturation (%)	96.3	95.8	91.4	92.3	94.1	94.7	94.10	-
D.O. (mg/L)	6.8	6.8	6.3	6.3	6.4	6.5	6.50	6.44
Turbidity (NTU)	3.3	3.2	3.8	3.9	4.7	4.6	3.92	-
SS (mg/L)	4.0	5.0	4.0	4.83	-			
Remarks			D	redging wor	ks was obse	rved.	•	

Station			IM	01			Co-ore	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			9	.4			22.22.073	113.55.302
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 (°C)	19.5	19.5	20.1	20.2	19.1	19.2	19.61	-
Salinity (ppt)	30.3	30.5	31.7	31.7	31.8	31.8	31.30	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.29	
D.O. Saturation (%)	98.3	98.7	95.3	96.4	96.0	96.8	96.92	-
D.O. (mg/L)	6.8	6.8	6.4	6.5	6.6	6.60	6.60	6.59
Turbidity (NTU)	4.7	4.6	5.6	5.4	6.6	6.4	5.55	-
SS (mg/L)	6.0	6.0	6.0	6.0	7.0	7.0	6.33	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			10	0.0			22.21.811	113.55.758
Monitoring Depth (m)	1	.0	5	.0	9	.0		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.7	19.7	19.1	19.1	18.9	18.9	19.25	-
Salinity (ppt)	30.8	30.7	31.7	31.7	31.8	31.7	31.39	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.30	
D.O. Saturation (%)	100.4	99.3	95.9	95.1	99.3	99.4	98.23	-
D.O. (mg/L)	6.8	6.8	6.6	6.5	6.8	6.83	6.73	6.82
Turbidity (NTU)	4.1	4.2	4.7	4.8	5.7	5.5	4.83	-
SS (mg/L)	5.0	5.0	7.0	5.67	-			
Remarks			D	redging wor	ks was obse	rved.	•	

Mid-Ebb

Station			MF	PB1			1	
Time (hh:mm)								
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-	Bottom
							averaged	
Water Temperature (°C)	18.2	18.2	18.5	18.5	18.5	18.5	18.40	-
Salinity (ppt)	26.6	26.4	29.3	29.3	29.5	29.5	28.44	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.31	
D.O. Saturation (%)	97.6	99.0	96.9	96.7	98.2	99.2	97.93	-
D.O. (mg/L)	7.0	7.1	6.8	6.8	6.9	7.0	6.94	6.94
Turbidity (NTU)	3.1	3.3	3.5	3.6	4.2	4.4	3.68	-
SS (mg/L)	6.0	6.0	6.0	6.17	-			
Remarks			D	redging wor	ks was obse	rved.		

Station			MF	PB2			1	
Time (hh:mm)			15:41	-15:43				
Water Depth (m)								
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.4	18.4	18.4	18.4	18.4	18.4	18.39	-
Salinity (ppt)	28.3	28.2	28.5	28.5	31.7	31.7	29.48	-
pH	8.3	8.3	8.3	8.3	8.3	8.4	8.33	
D.O. Saturation (%)	99.4	100.1	97.9	98.1	99.4	98.8	98.95	-
D.O. (mg/L)	7.1	7.1	6.9	7.0	6.9	6.9	6.96	6.88
Turbidity (NTU)	3.6	4.10	-					
SS (mg/L)	8.0	6.67	-					
Remarks			D	redging wor	ks was obse	rved.		

Station			IV	IP			1	
Time (hh:mm)			16:03	-16:04				
Water Depth (m)								
Monitoring Depth (m)	1	.0	.7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.1	18.1	-	-	18.6	18.6	18.35	-
Salinity (ppt)	27.7	27.8	-	-	30.3	30.3	29.00	-
pH	8.3	8.3	-	-	8.3	8.3	8.29	
D.O. Saturation (%)	100.3	99.6	-	-	100.8	102.1	100.70	-
D.O. (mg/L)	7.2	7.1	-	-	7.0	7.1	7.11	7.07
Turbidity (NTU)	2.9	3.20	-					
SS (mg/L)	7.0	8.0	8.0	7.75	-			
Remarks			D	redging wor	ks was obse	rved.	-	

Compliance with Action and Limit Level

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MF	PB2	MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	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	6.5	6.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.1	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	6.3	6.3	N	N	N	N	N	N	N	N	N	N

Sampling Date	02/01/2009
Weather & Ambient Temperature	Sunny, 15C

Station			C1 (NM3)				
Time (hh:mm)			10:48	-10:51				
Water Depth (m)			16					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	19.0	18.8	18.8	19.1	19.1	18.95	-
Salinity (ppt)	31.4	31.6	31.9	31.9	32.3	32.3	31.89	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	
D.O. Saturation (%)	99.2	100.2	97.8	97.4	98.2	98.9	98.62	-
D.O. (mg/L)	6.8	6.9	6.7	6.7	6.7	6.8	6.77	6.73
Turbidity (NTU)	2.8	2.9	3.4	3.3	3.7	3.9	3.33	-
SS (mg/L)	4.0	5.0	6.0	6.0	4.0	4.0	4.83	-
Remarks								

Station			C3 (NM6)								
Time (hh:mm)			12:18	-12:20								
Water Depth (m)			6									
Monitoring Depth (m)	1	.0	3									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.5	18.4	18.5	18.5	18.5	18.5	18.48	-				
Salinity (ppt)	29.1	29.1	29.4	29.5	30.7	30.7	29.73	-				
pH	8.3	8.4	8.3	8.3	8.4	8.3	8.34					
D.O. Saturation (%)	102.4	102.7	102.0	102.5	101.9	102.3	102.30	-				
D.O. (mg/L)	7.2	7.2	7.2	7.2	7.2	7.1	7.19	7.14				
Turbidity (NTU)	2.7	2.8	3.3	3.2	3.7	3.6	3.22	-				
SS (mg/L)	5.0	5.0	5.0	6.0	5.33	-						
Remarks		Dredging works was observed.										

Station			IM	01			Co-ordinates			
Time (hh:mm)			11:15	-11:18			Northing	Easting		
Water Depth (m)			9		22.22.070	113.55.297				
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 2 Trial 1		Depth-averaged	Bottom		
Water Temperature (°C)	19.4	19.4	19.6	19.6	19.7	19.7	19.56	-		
Salinity (ppt)	30.7	30.7	30.9	30.9	31.3	31.3	30.97	-		
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.33			
D.O. Saturation (%)	97.1	97.8	97.7	97.3	97.6	97.9	97.57	-		
D.O. (mg/L)	6.7	6.7	6.6	6.6	6.6	6.7	6.64	6.64		
Turbidity (NTU)	4.6 4.5 5.7 5.4 6				6.4	6.1	5.45	-		
SS (mg/L)	6.0	5.0	5.0	7.0	5.83	-				
Remarks				Dredg	ging works w	as observed.				

Station			IM	02			Co-ordinate	S			
Time (hh:mm)			11:02	-11:05			Northing	Easting			
Water Depth (m)			10		22.21.808	113.55.752					
Monitoring Depth (m)	1	.0	5								
Trial	Trial 1 Trial 2 Trial 1 Trial 2 Trial 1 Trial 2						Depth-averaged	Bottom			
Water Temperature (°C)	19.8	19.7	19.1	19.1	18.9	18.9	19.23	-			
Salinity (ppt)	31.0	30.9	31.8	1.8 31.8	32.0	32.1	31.61	-			
pH	8.4	8.3	8.4	8.3	8.4	8.3	8.35				
D.O. Saturation (%)	96.6	96.4	94.5	94.3	96.2	95.9	95.65	-			
D.O. (mg/L)	6.6	6.6	6.5	6.5	6.6	6.6	6.55	6.61			
Turbidity (NTU)	3.5	3.7	4.7	4.5	5.4	5.2	4.50	-			
SS (mg/L)	5.0	5.0	5.0	6.0	5.33	-					
Remarks		Dredging works was observed.									

Station			MF	PB1							
Time (hh:mm)			11:50	-11:53							
Water Depth (m)			8								
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.2	18.2	18.5	18.4	18.5	18.4	18.35	-			
Salinity (ppt)	27.4	27.5	29.6	29.6	29.9	30.0	28.99	-			
pH	8.3	8.3	8.4	8.4	8.4	8.3	8.35				
D.O. Saturation (%)	96.5	97.4	94.4	94.3	95.1	95.9	95.60	-			
D.O. (mg/L)	6.9	7.0	6.6	6.6	6.7	6.7	6.76	6.71			
Turbidity (NTU)	3.6	3.4	4.1	4.3	4.6	4.8	4.13	-			
SS (mg/L)	7.0	7.0	5.0	6.17	-						
Remarks		Dredging works was observed.									

Station			MF	PB2									
Time (hh:mm)			12:01	-12:03									
Water Depth (m)			9										
Monitoring Depth (m)	1	.0	4										
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	18.3	18.3	18.3	18.3	18.3	18.3	18.33	-					
Salinity (ppt)	28.4	28.4	28.7	28.7	31.8	31.7	29.61	-					
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.37						
D.O. Saturation (%)	97.2	97.7	96.6	96.5	96.8	96.5	96.88	-					
D.O. (mg/L)	6.9	6.9	6.8	6.8	6.7	6.7	6.82	6.70					
Turbidity (NTU)	3.3	3.1	3.5	3.7	4.4	4.5	3.75	-					
SS (mg/L)	6.0	5.0	6.0	4.0	5.00	-							
Remarks		Dredging works was observed.											

Station			IV	IP									
Time (hh:mm)			11:40	-11:41									
Water Depth (m)			5										
Monitoring Depth (m)	1.	.0											
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	18.1	18.0	-	-	18.5	18.5	18.28	-					
Salinity (ppt)	27.8	27.7	-	-	30.6	30.5	29.15	-					
pH	8.3	8.3	-	-	8.4	8.3	8.34						
D.O. Saturation (%)	99.2	100.0	-	-	101.8	100.6	100.40	-					
D.O. (mg/L)	7.1	7.2	-	-	7.1	7.0	7.09	7.06					
Turbidity (NTU)	2.9	2.7	-	-	3.3	3.5	3.10	-					
SS (mg/L)	6.0	6.0	-	6.0	6.00	-							
Remarks		Dredging works was observed.											

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		101	IMO2		MPB1		MPB2		IV	IP .
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.9	6.9	N	N	N	N	N	N	Z	N	N	N
DO (Depth-averaged)	4.2	4.0	7.0	7.0	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	4.3	4.3	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	6.6	6.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	03/01/2009
Weather & Ambient Temperature	Fine, 15C

Station			1					
Time (hh:mm)								
Water Depth (m)								
Monitoring Depth (m)	1	.0	10	0.1	19	9.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.3	18.3	18.5	18.5	18.6	18.6	18.46	-
Salinity (ppt)	26.0	26.1	31.0	30.9	31.7	31.7	29.57	-
pH	8.0	8.0	8.1	8.1	8.0	8.0	8.04	
D.O. Saturation (%)	96.2	96.1	93.5	91.8	94.5	94.0	94.35	-
D.O. (mg/L)	6.8	6.8	6.3	6.2	6.4	6.3	6.47	6.35
Turbidity (NTU)	2.5	2.6	3.4	3.5	4.3	4.2	3.42	-
SS (mg/L)	5.0	7.0	5.50	-				
Remarks			D	redging wor	ks was obse	rved.		-

Station			Co-ordinates					
Time (hh:mm)			Northing	Easting				
Water Depth (m)			9	.6			22.22.016	113.55.331
Monitoring Depth (m)	1	.0	4	.8	8	.6		•
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.5	18.5	18.4	18.4	18.3	18.3	18.42	-
Salinity (ppt)	25.6	25.7	29.9	30.0	31.6	31.6	29.06	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.10	
D.O. Saturation (%)	98.4	98.5	97.2	96.9	97.6	97.6	97.70	-
D.O. (mg/L)	7.0	7.0	6.7	6.7	6.7	6.63	6.77	6.66
Turbidity (NTU)	3.3	3.5	4.3	4.2	5.1	5.3	4.28	-
SS (mg/L)	5.0	6.0	5.0	6.0	8.0	6.0	6.00	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	02			Co-ordinates		
Time (hh:mm)			Northing	Easting					
Water Depth (m)			9	.8			22.21.764	113.55.790	
Monitoring Depth (m)	1	.0	4	.9	8	.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	18.2	18.2	18.4	18.4	18.6	18.6	18.40	-	
Salinity (ppt)	27.3	27.5	31.1	31.1	32.2	32.1	30.22	-	
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.08		
D.O. Saturation (%)	96.4	96.9	97.5	97.1	98.9	97.6	97.40	-	
D.O. (mg/L)	6.8	6.8	6.7	6.6	6.7	6.59	6.68	6.63	
Turbidity (NTU)	4.0	3.9	4.6	4.7	5.6	5.8	4.77	-	
SS (mg/L)	5.0 6.0		4.0	5.0	5.0	5.0	5.00	-	
Remarks		-	D	redging wor	ks was obse	rved.			

Mid-Ebb

Station			MF	PB1			1	
Time (hh:mm)								
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 (°C)	18.4	18.4	18.2	18.2	18.3	18.3	18.30	-
Salinity (ppt)	26.5	26.7	28.2	28.3	29.7	29.6	28.16	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.18	
D.O. Saturation (%)	100.1	100.6	98.8	100.2	101.5	100.6	100.30	-
D.O. (mg/L)	7.0	7.1	6.9	7.0	7.0	7.0	6.99	6.98
Turbidity (NTU)	2.6	2.7	3.2	3.3	3.8	3.7	3.22	-
SS (mg/L)	5.0	6.0	7.0	6.0	7.0	6.0	6.17	-
Remarks			D	redging wor	ks was obse	rved.	•	•

Station											
Time (hh:mm)											
Water Depth (m)			g	9.2							
Monitoring Depth (m)	1	.0	4	1.6	8	.2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	18.7	18.7	18.3	18.3	18.2	18.2	18.38	-			
Salinity (ppt)	25.5	25.5	27.4	27.3	29.4	29.4	27.42	-			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.18				
D.O. Saturation (%)	96.0	96.7	93.7	94.2	95.9	95.6	95.35	-			
D.O. (mg/L)	6.8	6.8	6.6	6.6	6.6	6.6	6.66	6.63			
Turbidity (NTU)	2.6	2.5	3.1	3.2	3.6	3.8	3.13	-			
SS (mg/L)	5.0	6.0	6.0	5.0	8.0	7.0	6.17	-			
Remarks	Dredging works was observed.										

Station			1					
Time (hh:mm)								
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 (°C)	18.4	18.4	-	-	18.2	18.1	18.29	-
Salinity (ppt)	26.7	26.7	-	-	28.4	28.4	27.56	-
pH	8.1	8.1	-	-	8.1	8.1	8.14	
D.O. Saturation (%)	96.9	97.2	-	-	98.7	99.4	98.05	-
D.O. (mg/L)	6.8	6.8	-	-	6.9	6.9	6.86	6.91
Turbidity (NTU)	2.4	2.3	-	-	2.7	2.6	2.50	-
SS (mg/L)	7.0	8.0	-	-	7.0	6.0	7.00	-
Remarks		•	D	redging wor	ks was obse	rved.		

Compliance with Action and Limit Level

Compliance with Action at	Compilance with Action and Limit Level													
Parameter	As in	EM&A	C2*130%		IMO1		IMO2			MPB1	MPB2		IV	IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	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	6.5	6.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	4.4	4.4	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	7.2	7.2	N	N	N	N	N	N	N	N	N	N

Sampling Date	03/01/2009
Weather & Ambient Temperature	Fine, 15C

Station			C1 (NM3)				
Time (hh:mm)			11:33					
Water Depth (m)			16	6.8				
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.8	18.8	18.6	18.7	18.7	18.7	18.72	-
Salinity (ppt)	31.8	31.8	32.2	32.2	32.6	32.7	32.21	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.99	
D.O. Saturation (%)	100.5	101.2	96.7	96.4	95.4	95.6	97.63	-
D.O. (mg/L)	6.8	6.8	6.5	6.5	6.4	6.4	6.58	6.44
Turbidity (NTU)	2.6	2.5	3.4	3.2	4.1	3.9	3.28	-
SS (mg/L)	5.0	7.0	6.0	6.0	6.0	6.0	6.00	-
Remarks				as observed.				

Station			C3 (NM6)								
Time (hh:mm)			12:59									
Water Depth (m)			6									
Monitoring Depth (m)	1	.0	3									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.7	18.7	18.4	18.4	18.4	18.4	18.48	-				
Salinity (ppt)	26.6	26.6	29.8	29.7	31.0	31.1	29.12	-				
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.27					
D.O. Saturation (%)	95.3	95.6	94.5	95.2	101.2	100.1	96.98	-				
D.O. (mg/L)	6.7	6.7	6.5	6.5	6.9	6.8	6.70	6.88				
Turbidity (NTU)	2.1	2.2	2.6	2.5	2.9	2.8	2.52	-				
SS (mg/L)	5.0	6.0	5.0	5.0	6.0	6.0	5.50	-				
Remarks		Dredging works was observed.										

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			11:59		Northing	Easting					
Water Depth (m)			9	.8			22.22.020	113.55.334			
Monitoring Depth (m)	1	.0	4	.9	8	3.8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.5	18.5	18.3	18.3	18.5	18.5	18.43	-			
Salinity (ppt)	26.0	26.1	30.1	30.0	32.0	32.0	29.34	-			
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.15				
D.O. Saturation (%)	99.5	99.3	98.2	98.0	97.3	98.3	98.43	-			
D.O. (mg/L)	7.0	7.0	6.8	6.8	6.6	6.7	6.80	6.63			
Turbidity (NTU)	3.5	3.4	4.7	4.4	5.4	5.5	4.48	-			
SS (mg/L)	4.0	6.0	6.0	5.0	6.0	6.0	5.50	-			
Remarks		Dredging works was observed.									

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			11:47		Northing	Easting					
Water Depth (m)			10		22.21.770	113.55.787					
Monitoring Depth (m)	1	.0	5	.1	9	.2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.4	18.3	18.4	18.4	18.6	18.6	18.45	-			
Salinity (ppt)	27.2	27.3	30.6	30.7	32.1	32.0	29.99	-			
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.11				
D.O. Saturation (%)	97.8	97.5	97.9	98.1	98.2	98.2	97.95	-			
D.O. (mg/L)	6.9	6.8	6.7	6.7	6.7	6.6	6.73	6.64			
Turbidity (NTU)	4.4	4.2	4.8	4.9	5.6	5.5	4.90	-			
SS (mg/L)	6.0	5.0	6.0	7.0	6.0	7.0	6.17	-			
Remarks		Dredging works was observed.									

Station										
Time (hh:mm)			12:33							
Water Depth (m)			8							
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 (°C)	18.5	18.5	18.3	18.3	18.4	18.5	18.41	-		
Salinity (ppt)	26.6	26.6	27.6	27.4	30.0	30.0	28.02	-		
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20			
D.O. Saturation (%)	98.6	97.6	97.6	96.4	101.2	100.6	98.67	-		
D.O. (mg/L)	6.9	6.9	6.8	6.8	7.0	6.9	6.88	6.95		
Turbidity (NTU)	3.2	3.1	3.5	3.6	4.5	4.3	3.70	-		
SS (mg/L)	5.0	5.0	6.0	6.0	5.0	5.0	5.33	-		
Remarks		Dredging works was observed.								

Station			MF	PB2							
Time (hh:mm)			12:43								
Water Depth (m)			9	.6							
Monitoring Depth (m)	1	.0	4	.8	8	.6					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.7	18.7	18.3	18.4	18.3	18.3	18.43	-			
Salinity (ppt)	25.7	25.6	26.8	26.8	29.7	29.6	27.36	-			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.21				
D.O. Saturation (%)	98.1	97.6	95.7	95.3	98.5	98.2	97.23	-			
D.O. (mg/L)	6.9	6.9	6.7	6.7	6.8	6.8	6.81	6.81			
Turbidity (NTU)	2.6	2.5	3.2	3.3	3.9	3.8	3.22	-			
SS (mg/L)	4.0	5.0	5.0	6.0	4.0	6.0	5.00	-			
Remarks		Dredging works was observed.									

Station												
Time (hh:mm)			12:23									
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 (°C)	18.6	18.6	-	-	18.2	18.2	18.38	-				
Salinity (ppt)	26.8	26.7	-	-	28.6	28.5	27.65	-				
pH	8.2	8.2	-	-	8.2	8.2	8.18					
D.O. Saturation (%)	100.0	102.3	-	-	98.6	99.2	100.03	-				
D.O. (mg/L)	7.0	7.2	-	-	6.9	6.9	7.00	6.90				
Turbidity (NTU)	2.8	2.7	-	-	3.6	3.7	3.20	-				
SS (mg/L)	4.0	5.0	-	-	5.0	6.0	5.00	-				
Remarks		Dredging works was observed.										

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2	IMO2		MPB1	MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.7	6.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.6	6.6	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	3.8	3.8	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	7.5	7.5	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	04/01/2009
Weather & Ambient Temperature	Fine, 18C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			19	9.2				
Monitoring Depth (m)	1	.0	9	.6	18	3.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	22.2	22.3	21.8	21.9	21.4	21.5	21.86	-
Salinity (ppt)	49.3	48.7	53.2	53.3	55.5	55.3	52.55	-
pH	1.1	1.1	9.7	9.7	18.2	18.2	9.66	
D.O. Saturation (%)	34.2	33.8	37.0	37.0	38.6	38.5	36.53	-
D.O. (mg/L)	98.7	96.6	98.0	97.1	98.2	97.2	97.63	97.70
Turbidity (NTU)	7.9	7.9	8.0	8.0	8.0	8.0	7.95	-
SS (mg/L)	6.0	7.0	6.0	5.0	4.0	6.0	5.67	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	01			Co-ore	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			9	.8			22.22.020	113.55.333
Monitoring Depth (m)	1	.0	4	.9	8	.8		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.3	22.2	21.9	21.9	21.8	21.7	21.94	-
Salinity (ppt)	43.3	43.2	46.1	46.0	49.8	49.8	46.38	-
pH	1.1	1.1	5.0	5.0	8.8	8.8	4.97	
D.O. Saturation (%)	29.9	29.8	31.9	31.8	34.5	34.5	32.06	-
D.O. (mg/L)	95.1	94.8	95.0	93.3	96.4	95.30	94.98	95.85
Turbidity (NTU)	7.9	7.9	7.9	7.9	7.9	7.9	7.91	-
SS (mg/L)	7.0	8.0	6.0	7.00	-			
Remarks			No	dredging wo	orks was obs	served.		

Station			IM	02			Co-ord	dinates		
Time (hh:mm)				Northing	Easting					
Water Depth (m)			10	0.0			22.21.770	113.55.782		
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	22.5	22.6	21.9	21.9	21.6	21.6	22.00	-		
Salinity (ppt)	41.4	40.4	46.9	47.4	51.3	51.9	46.56	-		
pH	1.0	1.1	5.5	5.5	9.1	9.1	5.21			
D.O. Saturation (%)	28.6	27.9	32.4	32.8	35.6	36.0	32.22	-		
D.O. (mg/L)	96.6	95.8	97.2	96.7	97.5	97.90	96.95	97.70		
Turbidity (NTU)	7.9	7.9	8.0	8.0	8.0	8.0	7.97	-		
SS (mg/L)	6.0	6.0 6.0 7.0 6.0 6.0 6.0 6.1								
Remarks		-	No	dredging wo	orks was obs	erved.	-			

Station			MF	PB1				
Time (hh:mm)			18:30	-18:33				
Water Depth (m)								
Monitoring Depth (m)	1	.0	4	.3	7	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.2	22.3	21.8	21.9	21.7	21.8	21.94	-
Salinity (ppt)	42.8	42.6	48.7	48.6	51.5	51.7	47.66	-
pH	1.1	1.1	4.3	4.4	7.6	7.7	4.37	
D.O. Saturation (%)	29.6	29.4	33.7	33.6	35.8	35.8	32.99	-
D.O. (mg/L)	97.0	96.5	97.3	96.5	96.5	97.1	96.82	96.80
Turbidity (NTU)	7.9	7.9	8.0	8.0	8.0	8.0	7.97	-
SS (mg/L)	7.0	7.0	6.0	6.33	-			
Remarks			No	dredging wo	orks was obs	served.		

Station			MF	PB2			1	
Time (hh:mm)								
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-	Bottom
							averaged	
Water Temperature (°C)	22.3	22.3	22.0	22.0	21.6	21.7	21.98	-
Salinity (ppt)	41.7	41.8	45.6	46.3	50.3	50.5	46.03	-
pH	1.0	1.2	4.5	4.5	8.0	8.1	4.55	
D.O. Saturation (%)	28.8	28.9	31.5	32.0	34.9	35.0	31.84	-
D.O. (mg/L)	95.1	95.2	94.9	94.2	95.8	94.9	95.02	95.35
Turbidity (NTU)	7.9	7.9	7.9	7.9	7.9	7.9	7.89	-
SS (mg/L)	6.0	6.0	6.0	6.0	5.0	6.0	5.83	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			N	IP			1				
Time (hh:mm)			18:12	-18:13							
Water Depth (m)			5	.5							
Monitoring Depth (m)	1	.0	2	.8	4	.5					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	22.2	22.1	-	-	21.8	21.7	21.95	-			
Salinity (ppt)	42.4	42.9	-	-	47.8	47.9	45.24	-			
pH	1.1	1.1	-	-	4.6	4.6	2.85				
D.O. Saturation (%)	29.2	29.6	-	-	33.1	33.1	31.25	-			
D.O. (mg/L)	95.5	94.8	-	-	96.1	94.7	95.28	95.40			
Turbidity (NTU)	7.9	7.9	-	-	8.0	8.0	7.94	-			
SS (mg/L)	6.0	6.0	7.0	6.50	-						
Remarks		No dredging works was observed.									

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	97.7	97.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	97.6	97.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.3	10.3	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	7.4	7.4	N	N	N	N	N	N	N	N	N	N

Sampling Date	04/01/2009
Weather & Ambient Temperature	Fine, 19C

Station			C1 (NM3)				
Time (hh:mm)			12:13					
Water Depth (m)			16	6.0				
Monitoring Depth (m)	1	.0	8	3.0	15	5.0		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.1	21.9	21.1	21.2	20.9	20.9	21.33	-
Salinity (ppt)	45.7	46.4	50.6	50.2	53.3	53.7	49.98	-
pH	1.0	1.0	8.0	8.1	15.0	15.0	8.04	
D.O. Saturation (%)	31.5	32.0	35.0	34.8	37.0	37.3	34.60	-
D.O. (mg/L)	98.7	97.9	98.9	99.6	101.1	101.2	99.57	101.15
Turbidity (NTU)	8.0	8.0	8.0	8.0	8.1	8.1	8.03	-
SS (mg/L)	6.0	5.0	5.0	5.0	5.0	5.0	5.17	-
Remarks				No dred	dging works	was observed	d.	

Station			C3 (NM6)							
Time (hh:mm)			12:38								
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 (°C)	22.4	22.2	22.1	22.0	21.8	21.7	22.01	-			
Salinity (ppt)	47.8	48.2	50.5	50.9	54.2	54.1	50.96	-			
pH	1.0	1.1	3.3	3.4	5.6	5.7	3.35				
D.O. Saturation (%)	33.2	33.5	35.1	35.3	37.7	37.7	35.41	-			
D.O. (mg/L)	100.6	99.8	99.4	99.5	100.0	99.9	99.87	99.95			
Turbidity (NTU)	7.8	7.8	7.9	7.9	7.8	7.8	7.83	-			
SS (mg/L)	5.0	6.0	8.0	8.0	8.0	7.0	7.00	-			
Remarks		No dredging works was observed.									

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			13:20	-13:22			Northing	Easting			
Water Depth (m)			9		22.22.021	113.55.331					
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	22.3	22.2	21.8	21.8	21.6	21.6	21.89	-			
Salinity (ppt)	43.1	43.1	46.4	46.4	49.6	49.4	46.33	-			
pH	1.1	1.1	4.7	4.8	8.4	8.4	4.76				
D.O. Saturation (%)	29.7	29.7	32.1	32.1	34.4	34.2	32.02	-			
D.O. (mg/L)	95.4	95.2	95.2	94.1	95.5	95.5	95.15	95.50			
Turbidity (NTU)	7.9	7.9	7.9	7.9	7.9	7.9	7.92	-			
SS (mg/L)	7.0	6.0	6.0	6.0	6.33	-					
Remarks		No dredging works was observed.									

Station			IM	02			Co-ordinate	s
Time (hh:mm)			12:53	-12:55			Northing	Easting
Water Depth (m)			10		22.21.772	113.55.785		
Monitoring Depth (m)	1	.0	5	.2	9	.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	22.2	21.9	21.8	21.8	21.5	21.93	-
Salinity (ppt)	41.4	41.4	47.7	48.8	51.4	52.1	47.13	-
pH	1.1	1.1	5.4	5.4	9.4	9.5	5.32	
D.O. Saturation (%)	28.6	28.7	33.0	33.8	35.7	36.1	32.64	-
D.O. (mg/L)	98.2	97.1	97.5	96.8	97.4	97.6	97.43	97.50
Turbidity (NTU)	7.9	7.9	8.0	8.0	8.0	8.0	7.96	-
SS (mg/L)	6.0	6.0	6.0	6.0	6.0	7.0	6.17	-
Remarks				No dred	dging works	was observed	d.	

Station			MF	PB1					
Time (hh:mm)			13:11						
Water Depth (m)			8						
Monitoring Depth (m)	1	.0	4	.6					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	22.4	22.4	21.8	21.8	21.7	21.7	21.95	-	
Salinity (ppt)	42.9	42.2	47.9	48.3	50.7	50.3	47.06	-	
pH	1.1	1.1	4.3	4.3	7.7	7.7	4.36		
D.O. Saturation (%)	29.6	29.2	33.1	33.4	35.2	34.9	32.55	-	
D.O. (mg/L)	97.5	97.6	98.6	97.7	97.9	99.7	98.17	98.80	
Turbidity (NTU)	7.9	7.9	8.0	8.0	8.0	8.0	7.96	-	
SS (mg/L)	4.0	4.0	4.0	6.0	5.0	5.0	4.67	-	
Remarks		No dredging works was observed.							

Station			MF	PB2						
Time (hh:mm)			13:03							
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 (°C)	22.4	22.4	21.9	22.0	21.6	21.6	21.97	-		
Salinity (ppt)	41.1	41.4	46.04	-						
pH	1.0	1.1	4.4	4.4	7.9	7.9	4.44			
D.O. Saturation (%)	28.4	28.6	31.6	31.7	34.4	36.5	31.84	-		
D.O. (mg/L)	96.7	96.4	95.8	96.3	96.6	96.0	96.30	96.30		
Turbidity (NTU)	7.8	7.8	7.9	7.9	7.9	7.9	7.87	-		
SS (mg/L)	5.0	5.0 4.0 4.0 5.0 4.0 4.0 4.33								
Remarks		No dredging works was observed.								

Station			IV	IP							
Time (hh:mm)			13:29	-13:30							
Water Depth (m)			5								
Monitoring Depth (m)	1	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	22.2	22.2	-	-	21.8	21.9	22.00	-			
Salinity (ppt)	42.9	42.5	-	-	47.4	47.4	45.05	-			
pH	1.0	1.1	-	-	4.5	4.6	2.81				
D.O. Saturation (%)	29.6	29.4	-	-	32.7	32.8	31.12	-			
D.O. (mg/L)	97.0	95.6	-	-	98.5	95.4	96.63	96.95			
Turbidity (NTU)	7.9	7.9	-	-	8.0	8.0	7.93	-			
SS (mg/L)	7.0	6.0	-	-	6.0	6.0	6.25	-			
Remarks		No dredging works was observed.									

Compliance with Action an	Compliance with Action and Limit Level													
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	101	IMO2	IMO2		MPB1		MPB2		IP .
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	100.6	100.6	N	N	N	N	N	N	Z	N	N	N
DO (Depth-averaged)	4.2	4.0	99.7	99.7	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.3	10.3	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	7.9	7.9	N	N	N	N	N	N	N	N	N	N

Sampling Date	05/01/2009
Weather & Ambient Temperature	Cloudy, 16C

Station			C2 (NM5)			1	
Time (hh:mm)			- 1	-19:38				
Water Depth (m)								
Monitoring Depth (m)	1	.0	10).1	19	9.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.9	19.0	18.3	18.4	18.0	18.2	18.47	-
Salinity (ppt)	31.5	31.4	32.3	32.2	33.0	32.8	32.18	-
pH	7.7	7.7	7.8	7.8	7.8	7.8	7.76	
D.O. Saturation (%)	97.3	97.7	96.3	96.7	96.0	93.8	96.30	-
D.O. (mg/L)	8.5	8.4	8.4	8.3	8.4	8.2	8.37	8.30
Turbidity (NTU)	9.6	9.6	8.9	9.1	9.1	9.2	9.25	-
SS (mg/L)	4.0	6.0	4.50	-				
Remarks			No	dredging wo	orks was obs	erved.	•	

Station			IM	01			Co-ore	dinates
Time (hh:mm)			19:48	-19:50			Northing	Easting
Water Depth (m)				22.21.987	113.55.307			
Monitoring Depth (m)	1	.0	9	.3	17	7.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.4	18.9	18.5	18.4	18.2	18.2	18.62	-
Salinity (ppt)	31.1	31.5	32.3	32.4	32.8	32.8	32.15	-
pH	7.8	7.7	7.7	7.8	7.7	7.8	7.75	
D.O. Saturation (%)	107.1	108.9	109.3	107.3	110.4	107.5	108.42	-
D.O. (mg/L)	8.3	8.5	8.6	8.4	8.7	8.45	8.50	8.57
Turbidity (NTU)	8.5	8.1	8.7	8.9	8.8	8.6	8.60	-
SS (mg/L)	7.0	7.0	5.0	5.0	5.0	5.0	5.67	-
Remarks			No	dredging wo	orks was obs	served.		

Station			IM	O2			Co-ord	dinates		
Time (hh:mm)			19:58	-20:00			Northing	Easting		
Water Depth (m)				22.21.769	113.55.764					
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	19.0	18.9	18.5	18.6	18.2	18.2	18.55	-		
Salinity (ppt)	31.7	31.8	32.3	32.3	32.9	33.0	32.36	-		
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.77			
D.O. Saturation (%)	103.6	105.2	102.5	104.0	103.5	104.7	103.92	-		
D.O. (mg/L)	8.1	8.2	8.1	8.2	8.1	8.24	8.15	8.19		
Turbidity (NTU)	9.3	9.7	8.6	9.2	9.0	9.6	9.23	-		
SS (mg/L)	6.0 5.0 5.0 6.0 5.0 5.0						5.33	-		
Remarks		No dredging works was observed.								

Station			MF	PB1			1	
Time (hh:mm)			19:18	-19:19				
Water Depth (m)								
Monitoring Depth (m)	1	.0	4	.3	7	.6		
Trial	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	19.4	19.5	18.9	19.0	18.4	18.3	18.90	-
Salinity (ppt)	31.1	30.9	31.8	31.8	33.1	33.2	31.98	-
pH	7.7	7.7	7.7	7.7	7.8	7.8	7.73	
D.O. Saturation (%)	86.1	95.2	104.7	90.9	98.3	98.0	95.53	-
D.O. (mg/L)	7.6	8.3	9.1	8.0	8.6	8.6	8.35	8.56
Turbidity (NTU)	9.7	9.4	10.5	10.3	9.6	9.9	9.90	-
SS (mg/L)	7.0	7.0	6.0	7.0	5.0	5.0	6.17	-
Remarks			No	dredging wo	orks was obs	served.		•

Station			MF	PB2			1			
Time (hh:mm)			19:09	-19:10						
Water Depth (m)										
Monitoring Depth (m)	1	.0	4	.6	8	.1				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	19.5	19.5	18.8	18.7	18.6	18.6	18.95	-		
Salinity (ppt)	31.2	31.2	32.1	32.1	32.6	32.5	31.93	-		
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.70			
D.O. Saturation (%)	86.5	89.0	101.6	98.3	96.7	98.6	95.12	-		
D.O. (mg/L)	7.7	7.9	8.9	8.6	8.5	8.7	8.37	8.57		
Turbidity (NTU)	8.4	8.4	10.3	10.2	10.0	10.7	9.67	-		
SS (mg/L)	5.0	5.0	5.50	-						
Remarks		No dredging works was observed.								

Station											
Time (hh:mm)			19:27	-19:28							
Water Depth (m)											
Monitoring Depth (m)	1	.0	2	.9	4	.7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	19.0	19.8	-	-	18.3	18.2	18.83	-			
Salinity (ppt)	31.5	30.9	-	-	32.4	32.5	31.81	-			
pH	7.7	7.7	-	-	7.8	7.8	7.74				
D.O. Saturation (%)	103.9	103.1	-	-	91.2	94.9	98.28	-			
D.O. (mg/L)	9.1	9.0	-	-	8.0	8.3	8.60	8.17			
Turbidity (NTU)	9.3	9.2	-	-	9.5	9.7	9.43	-			
SS (mg/L)	5.0	5.0	5.00	-							
Remarks		No dredging works was observed.									

Compliance with Action an	Compliance with Action and Limit Level													
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.3	8.3	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	8.4	8.4	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	12.0	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	5.9	5.9	N	N	N	N	N	N	Ν	N	N	N

Sampling Date	05/01/2009
Weather & Ambient Temperature	Fine, 18C

Station			C1 (NM3)							
Time (hh:mm)			12:31	-12:37							
Water Depth (m)			16								
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.6	18.5	18.4	18.4	18.3	18.4	18.41	-			
Salinity (ppt)	32.3	32.8	32.4	32.5	32.8	32.5	32.54	-			
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.78				
D.O. Saturation (%)	98.9	95.9	97.7	95.6	100.5	98.9	97.92	-			
D.O. (mg/L)	8.5	8.3	8.5	8.3	8.7	8.6	8.49	8.67			
Turbidity (NTU)	9.8	9.7	9.7	9.8	9.2	10.0	9.70	-			
SS (mg/L)	6.0	6.0	6.0	6.0	6.0	5.0	5.83	-			
Remarks		No dredging works was observed.									

Station			C3 (NM6)							
Time (hh:mm)			13:41	-13:44							
Water Depth (m)			6								
Monitoring Depth (m)	1	.0	3								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.3	19.0	18.8	18.9	18.4	18.3	18.77	-			
Salinity (ppt)	30.8	31.3	32.4	32.0	33.0	33.2	32.12	-			
pH	7.8	7.8	7.8	7.8	7.9	7.9	7.84				
D.O. Saturation (%)	91.7	97.4	96.7	101.8	91.9	97.3	96.13	-			
D.O. (mg/L)	8.1	8.6	8.5	8.9	8.1	8.6	8.46	8.34			
Turbidity (NTU)	9.0	8.7	9.7	9.3	11.2	10.8	9.78	-			
SS (mg/L)	6.0	6.0	5.0	6.0	4.0	4.0	5.17	-			
Remarks		No dredging works was observed.									

Station			IM	01			Co-ordinate	s	
Time (hh:mm)			12:52	-12:53			Northing	Easting	
Water Depth (m)			19	9.2			22.21.994	113.55.339	
Monitoring Depth (m)	1	1.0 9.6 18.2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.9	18.8	18.5	18.5	18.5	18.5	18.62	-	
Salinity (ppt)	31.8	31.8	32.2	32.2	32.3	32.3	32.08	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.81		
D.O. Saturation (%)	92.2	95.0	97.7	92.2	97.0	93.7	94.63	-	
D.O. (mg/L)	8.1	8.5	8.5	8.1	8.5	8.2	8.32	8.34	
Turbidity (NTU)	8.7	8.8	11.5	11.7	11.9	12.2	10.80	-	
SS (mg/L)	6.0	6.0	6.0	6.0	6.0	6.0	6.00	-	
Remarks		No dredging works was observed.							

Station			IM	IO2			Co-ordinate	s		
Time (hh:mm)			12:45	-12:47			Northing	Easting		
Water Depth (m)			20	0.1			22.21.783	113.55.774		
Monitoring Depth (m)	1	.0	10	0.1	19	9.1				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.0	19.0	18.6	18.5	18.4	18.5	18.65	-		
Salinity (ppt)	31.6	31.7	32.1	32.2	32.4	32.2	32.03	-		
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.79			
D.O. Saturation (%)	99.5	97.8	93.7	95.1	96.4	93.8	96.05	-		
D.O. (mg/L)	8.5	8.4	8.2	8.5	8.4	8.2	8.37	8.31		
Turbidity (NTU)	8.6	8.4	10.9	10.3	11.5	11.3	10.17	-		
SS (mg/L)	4.0	5.0	5.0	5.0	5.0	4.0	4.67	-		
Remarks		No dredging works was observed.								

Station			MF	PB1				
Time (hh:mm)			13:10	-13:12				
Water Depth (m)			8	.3				
Monitoring Depth (m)	1	.0	4	.2	7	.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.8	18.8	18.7	18.6	18.7	18.7	18.72	-
Salinity (ppt)	31.2	31.2	31.6	32.1	31.6	31.6	31.55	-
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.77	
D.O. Saturation (%)	92.6	95.8	101.2	94.9	106.0	94.3	97.47	-
D.O. (mg/L)	8.1	8.3	8.9	8.3	9.2	8.3	8.51	8.75
Turbidity (NTU)	10.6	10.6	11.9	12.0	12.1	12.3	11.58	-
SS (mg/L)	4.0	4.0	3.0	4.0	4.0	4.0	3.83	-
Remarks				No dredgi	ng works wa	s observed.		•

Station			MF	PB2					
Time (hh:mm)			13:19	-13:21					
Water Depth (m)			8						
Monitoring Depth (m)	1	.0	4						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	19.7	19.3	18.9	19.1	18.6	18.6	19.04	-	
Salinity (ppt)	30.6	30.7	31.2	30.9	31.9	31.9	31.20	-	
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.77		
D.O. Saturation (%)	85.0	99.0	90.3	90.4	103.2	94.7	93.77	-	
D.O. (mg/L)	7.5	8.7	8.0	8.0	9.0	8.3	8.25	8.68	
Turbidity (NTU)	9.4	9.5	9.4	8.5	10.4	10.9	9.68	-	
SS (mg/L)	6.0	7.0	5.0	6.0	5.0	6.0	5.83	-	
Remarks	No dredging works was observed.								

Station			IV	IP						
Time (hh:mm)			13:01	-13:02						
Water Depth (m)			5							
Monitoring Depth (m)	1	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.0	19.2	-	-	18.9	18.9	18.97	-		
Salinity (ppt)	31.8	31.7	-	-	31.8	31.8	31.79	-		
pH	7.8	7.8	-	-	7.8	7.8	7.79			
D.O. Saturation (%)	98.1	97.2	-	-	90.6	103.3	97.30	-		
D.O. (mg/L)	8.6	8.5	-	-	8.0	9.0	8.50	8.46		
Turbidity (NTU)	9.1	9.2	-	-	9.1	9.3	9.18	-		
SS (mg/L)	6.0	6.0	-	-	6.0	5.0	5.75	-		
Remarks		No dredging works was observed.								

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	01	IMO2			MPB1	MF	PB2	IV	ЛP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.5	8.5	N	N	N	N	N	N	Z	N	N	N
DO (Depth-averaged)	4.2	4.0	8.5	8.5	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	12.7	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	7.2	7.2	N	N	N	N	N	N	N	N	N	N

Sampling Date	06/01/2009
Weather & Ambient Temperature	Sunny, 19C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			20	0.3				
Monitoring Depth (m)	1	.0	10	0.2	19	9.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	16.8	18.0	17.9	17.8	17.8	17.8	17.67	-
Salinity (ppt)	32.8	31.9	32.7	32.6	32.8	32.7	32.57	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.61	
D.O. Saturation (%)	91.7	88.9	88.9	94.4	93.7	90.4	91.33	-
D.O. (mg/L)	8.3	7.9	7.9	8.3	8.3	8.0	8.12	8.14
Turbidity (NTU)	5.1	5.3	5.8	5.8	5.2	5.1	5.38	-
SS (mg/L)	5.0	6.0	5.0	5.17	-			
Remarks			D	redging wor	ks was obse	rved.		•

Station			IM	01			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			18	3.1			22.21.951	113.55.533
Monitoring Depth (m)	1	.0	9	.1	17	7.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.8	18.9	18.0	18.0	18.0	18.0	18.29	-
Salinity (ppt)	32.0	32.0	32.3	29.6	32.3	32.5	31.75	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.64	
D.O. Saturation (%)	94.5	96.2	90.4	91.8	93.1	90.5	92.75	-
D.O. (mg/L)	8.2	8.3	8.0	8.3	8.2	8.00	8.17	8.11
Turbidity (NTU)	5.8	5.8	6.3	6.4	6.5	6.4	6.20	-
SS (mg/L)	5.0	6.0	8.0	6.17	-			
Remarks			D	redging wor	ks was obse	rved.		

Station				Co-ord	dinates					
Time (hh:mm)				Northing	Easting					
Water Depth (m)			17	7.6			22.21.623	113.55.881		
Monitoring Depth (m)	1	.0	8	.8	16	6.6				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	18.7	18.6	18.1	18.1	18.0	18.0	18.25	-		
Salinity (ppt)	32.0	32.0	32.4	32.7	32.9	32.7	32.43	-		
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.67			
D.O. Saturation (%)	95.6	92.6	92.3	94.4	97.2	95.6	94.62	-		
D.O. (mg/L)	8.3	8.1	8.1	8.3	8.5	8.40	8.29	8.47		
Turbidity (NTU)	6.5	6.7	7.1	6.8	6.9	7.0	6.83	-		
SS (mg/L)	7.0	7.0	7.0	7.0	7.0	8.0	7.17	-		
Remarks		Dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)										
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 (°C)	18.3	18.3	17.8	17.8	17.8	18.0	18.01	-		
Salinity (ppt)	32.1	32.0	32.2	32.0	32.3	32.1	32.09	-		
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.56			
D.O. Saturation (%)	92.5	89.3	97.9	91.6	91.0	102.7	94.17	-		
D.O. (mg/L)	8.1	7.9	8.7	8.1	8.1	9.0	8.31	8.55		
Turbidity (NTU)	8.8	8.9	11.2	11.2	11.5	11.1	10.45	-		
SS (mg/L)	4.0	3.0	4.0	3.0	5.0	6.0	4.17	-		
Remarks		Dredging works was observed.								

Station			MI	PB2							
Time (hh:mm)			8:10	-8:11							
Water Depth (m)											
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	17.9	18.0	17.7	17.7	17.7	17.8	17.80	-			
Salinity (ppt)	31.9	31.8	32.1	32.0	32.3	32.3	32.05	-			
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.50				
D.O. Saturation (%)	81.7	95.7	87.1	87.0	91.4	99.9	90.47	=			
D.O. (mg/L)	7.3	8.5	7.8	7.8	8.1	8.8	8.05	8.48			
Turbidity (NTU)	8.2	7.9	9.9	10.5	11.2	11.2	9.82	=			
SS (mg/L)	6.0	6.0	5.0	5.0	6.0	7.0	5.83	-			
Remarks	Dredging works was observed.										

Station			I N	/IP	•			
Time (hh:mm)			7:51	-7:52				
Water Depth (m)								
Monitoring Depth (m)	1	.0	2	2.8	4	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.1	18.1	-	-	18.1	18.1	18.11	-
Salinity (ppt)	31.6	31.2	-	-	32.4	31.8	31.73	-
pH	7.6	7.6	-	-	7.5	7.6	7.57	
D.O. Saturation (%)	93.9	94.8	-	-	100.0	87.3	94.00	-
D.O. (mg/L)	8.3	8.4	-	-	8.8	7.8	8.30	8.26
Turbidity (NTU)	13.3	13.4	-	-	13.3	13.2	13.30	-
SS (mg/L)	4.0	4.0	-	-	6.0	5.0	4.75	-
Remarks		•		redging wor	ks was obse	rved.	-	

Compliance with Action at	ia Limit Lev	<u>'eı</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MF	PB2	MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.1	8.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	8.1	8.1	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	7.0	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	6.7	6.7	N	N	N	N	N	N	N	N	N	N

Sampling Date	06/01/2009
Weather & Ambient Temperature	Cloudy, 16C

Station			C1 (NM3)				
Time (hh:mm)			13:50	-13:52				
Water Depth (m)			10					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.7	17.8	17.8	17.4	17.4	17.8	17.65	-
Salinity (ppt)	33.1	32.9	32.9	33.3	33.4	33.0	33.09	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.69	
D.O. Saturation (%)	91.7	91.1	88.2	92.8	96.5	98.4	93.12	-
D.O. (mg/L)	8.1	8.1	7.8	8.3	8.6	8.7	8.24	8.60
Turbidity (NTU)	6.4	6.3	7.0	7.4	8.2	8.6	7.32	-
SS (mg/L)	4.0	4.0	5.0	4.0	6.0	4.0	4.50	-
Remarks				d.				

Station			C3 (NM6)				
Time (hh:mm)			12:34	-12:35				
Water Depth (m)			6					
Monitoring Depth (m)	1	.0	3					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.7	17.7	17.6	17.6	17.7	17.6	17.64	-
Salinity (ppt)	32.4	32.3	32.4	32.3	32.3	32.5	32.34	-
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.51	
D.O. Saturation (%)	94.1	88.4	93.4	98.5	88.6	94.0	92.83	-
D.O. (mg/L)	8.4	7.9	8.3	8.7	7.9	8.4	8.26	8.14
Turbidity (NTU)	9.3	9.1	9.8	10.1	10.8	10.8	9.98	-
SS (mg/L)	5.0	5.0	6.0	5.0	5.00	-		
Remarks				No dred	dging works	was observe	d.	

Station			IM	01			Co-ordinates					
Time (hh:mm)			13:24	-13:26			Northing	Easting				
Water Depth (m)			18		22.22.046	113.55.518						
Monitoring Depth (m)	1	.0	9	7.3								
Trial	Trial 1	Trial 2	Trial 1	1 Trial 2 Tria		Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.0	18.0	18.0	18.7	18.0	18.0	18.11	-				
Salinity (ppt)	32.4	32.3	32.2	32.1	32.3	32.6	32.32	-				
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.64					
D.O. Saturation (%)	94.0	94.4	93.0	93.4	90.5	92.7	93.00	-				
D.O. (mg/L)	8.3	8.2	8.2	8.1	8.0	8.2	8.17	8.10				
Turbidity (NTU)	7.1	6.9	8.0	7.9	8.5	8.0	7.73	-				
SS (mg/L)	5.0	5.0	4.0	4.0	4.50	-						
Remarks		No dredging works was observed.										

Station			IM	102			Co-ordinates			
Time (hh:mm)			13:35	-13:37			Northing	Easting		
Water Depth (m)			18		22.21.649	113.55.879				
Monitoring Depth (m)	1	.0	9							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.6	18.6	18.1	18.1	18.0	18.1	18.25	-		
Salinity (ppt)	31.5	32.0	32.4	31.8	32.6	32.7	32.17	-		
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.67			
D.O. Saturation (%)	102.9	89.4	89.0	92.8	90.6	99.7	94.07	-		
D.O. (mg/L)	9.0	7.8	7.9	8.2	8.0	8.7	8.26	8.36		
Turbidity (NTU)	7.1	7.2	7.2	7.4	6.9	7.1	7.15	-		
SS (mg/L)	4.0	4.0	3.0	4.0	4.00	-				
Remarks		No dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			13:01	-13:02						
Water Depth (m)			8							
Monitoring Depth (m)	1	.0	4	.7						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.3	18.2	17.9	17.9	18.1	18.1	18.07	-		
Salinity (ppt)	31.7	32.0	32.1	32.2	32.0	32.0	32.00	-		
pH	7.6	7.5	7.6	7.6	7.6	7.6	7.55			
D.O. Saturation (%)	91.9	82.8	87.6	101.4	95.0	94.7	92.23	-		
D.O. (mg/L)	8.1	7.4	7.8	8.9	8.4	8.4	8.15	8.36		
Turbidity (NTU)	7.0	7.2	9.0	9.2	9.5	9.6	8.58	-		
SS (mg/L)	5.0	5.0	5.0	5.0	6.0	6.0	5.33	-		
Remarks		No dredging works was observed.								

Station			MF	PB2								
Time (hh:mm)			12:50	-12:51								
Water Depth (m)			8									
Monitoring Depth (m)	1	.0	4	.8								
Trial	Trial 1	Trial 2	Depth-averaged	Bottom								
Water Temperature (°C)	17.8	17.8	17.7	17.7	17.7	17.8	17.76	-				
Salinity (ppt)	31.9	31.8	32.0	32.1	32.3	32.1	32.03	-				
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.48					
D.O. Saturation (%)	83.2	85.7	95.0	98.3	93.4	95.3	91.82	-				
D.O. (mg/L)	7.5	7.7	8.4	8.7	8.3	8.5	8.17	8.37				
Turbidity (NTU)	8.3	7.9	8.9	9.5	9.5	9.4	8.92	-				
SS (mg/L)	5.0	4.0	5.0	6.0	5.17	-						
Remarks		No dredging works was observed.										

Station			IV	IP								
Time (hh:mm)			13:11	-13:12								
Water Depth (m)			5									
Monitoring Depth (m)	1.	.0	2									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.1	18.1	-	-	18.1	18.1	18.09	-				
Salinity (ppt)	31.6	31.6	-	-	31.6	31.6	31.58	-				
pH	7.6	7.6	-	-	7.6	7.6	7.58					
D.O. Saturation (%)	99.8	100.6	-	-	91.6	87.9	94.98	-				
D.O. (mg/L)	8.8	8.9	-	-	8.1	7.8	8.40	7.97				
Turbidity (NTU)	12.1	12.2	12.20	-								
SS (mg/L)	5.0	4.0	-	4.0	4.50	-						
Remarks		No dredging works was observed.										

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		101	IMO2			MPB1	MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.4	8.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	8.3	8.3	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	11.2	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	6.2	6.2	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	07/01/2009
Weather & Ambient Temperature	Fine, 17C

Station			C2 (NM5)			1	
Time (hh:mm)			8:54	-8:56				
Water Depth (m)								
Monitoring Depth (m)	1	.0	10).1	19	9.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.1	18.8	18.1	18.1	18.0	18.1	18.36	ı
Salinity (ppt)	28.1	28.6	32.0	32.0	32.3	32.1	30.84	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.70	
D.O. Saturation (%)	92.1	91.7	92.0	91.1	91.5	92.3	91.78	-
D.O. (mg/L)	6.7	6.7	6.7	6.6	6.7	6.7	6.71	6.71
Turbidity (NTU)	7.9	8.0	8.0	7.9	8.8	8.9	8.25	-
SS (mg/L)	6.0	7.0	5.83	1				
Remarks			No	dredging wo	orks was obs	served.		

Station			IM	01			Co-ore	dinates
Time (hh:mm)			8:36	-8:37			Northing	Easting
Water Depth (m)				22.21.954	113.55.536			
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.2	20.9	18.1	18.1	18.3	17.8	18.72	-
Salinity (ppt)	29.9	29.1	32.1	32.1	31.9	32.1	31.20	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.72	
D.O. Saturation (%)	93.2	91.2	92.9	92.7	93.5	94.3	92.97	-
D.O. (mg/L)	6.8	6.5	6.8	6.8	6.8	6.91	6.75	6.86
Turbidity (NTU)	7.6	7.8	7.72	-				
SS (mg/L)	5.0	6.0	6.0	5.67	-			
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)			8:23	-8:25			Northing	Easting
Water Depth (m)				22.21.628	113.55.897			
Monitoring Depth (m)	1	.0	9	.6	18	3.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.6	18.0	18.0	18.0	17.9	18.0	18.25	-
Salinity (ppt)	30.1	39.0	32.2	32.2	32.4	32.1	33.01	-
pH	7.7	7.8	7.7	7.9	7.7	7.8	7.77	
D.O. Saturation (%)	93.5	101.4	92.5	92.3	94.3	91.6	94.27	-
D.O. (mg/L)	6.7	8.3	6.8	6.8	6.9	6.74	7.03	6.82
Turbidity (NTU)	7.0	7.1	7.62	-				
SS (mg/L)	5.0	5.0	5.0	5.17	-			
Remarks		-	No	dredging wo	orks was obs	erved.	-	-

Station			MF	PB1			1	
Time (hh:mm)			9:14	-9:15				
Water Depth (m)								
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 (°C)	18.9	18.8	18.4	18.4	18.6	18.2	18.52	-
Salinity (ppt)	28.4	28.9	29.2	29.7	31.4	31.7	29.88	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.70	
D.O. Saturation (%)	92.2	92.0	92.7	92.8	93.4	94.6	92.95	-
D.O. (mg/L)	6.8	6.8	6.8	6.8	6.8	6.9	6.81	6.85
Turbidity (NTU)	12.9	12.4	12.0	12.2	12.6	12.5	12.43	-
SS (mg/L)	6.0	6.0	5.50	-				
Remarks			No	dredging wo	orks was obs	served.		

Station			MF	PB2				
Time (hh:mm)			9:22	-9:24				
Water Depth (m)								
Monitoring Depth (m)	1	.0	4	.6	8	.1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.9	19.1	18.2	18.5	18.3	18.5	18.60	-
Salinity (ppt)	28.7	28.4	31.2	29.3	30.9	31.4	29.96	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.71	
D.O. Saturation (%)	90.6	88.6	91.5	88.3	92.6	87.7	89.88	-
D.O. (mg/L)	6.6	6.5	6.7	6.5	6.8	6.4	6.57	6.57
Turbidity (NTU)	10.4	10.5	11.5	11.4	12.7	12.6	11.52	-
SS (mg/L)	6.0	7.0	6.0	5.67	-			
Remarks		•	No	dredging we	orks was obs	served.		

Station			IV	IP			1	
Time (hh:mm)			9:05	-9:05				
Water Depth (m)								
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 (°C)	18.9	18.9	-	-	19.2	19.1	19.00	-
Salinity (ppt)	28.2	27.0	-	-	28.3	29.4	28.23	-
pH	7.7	7.7	-		7.7	7.7	7.71	
D.O. Saturation (%)	90.8	91.2	-	-	90.8	90.3	90.78	-
D.O. (mg/L)	6.7	6.7	-	-	6.6	6.6	6.65	6.60
Turbidity (NTU)	11.4	11.4	-	-	11.6	11.6	11.50	-
SS (mg/L)	5.0	6.0	9.0	6.75	-			
Remarks		•	No	dredging we	orks was obs	erved.	•	

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.7	6.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.7	6.7	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.7	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	7.6	7.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	07/01/2009
Weather & Ambient Temperature	Cloudy, 18C

Station			C1 (
Time (hh:mm)			14:34					
Water Depth (m)			10	6.3				
Monitoring Depth (m)	1	.0	8	3.2	15	5.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.9	19.0	18.2	18.1	18.0	17.9	18.35	-
Salinity (ppt)	29.6	29.6	31.8	32.1	32.4	32.5	31.31	-
pH	7.7	7.7	7.8	7.7	7.8	7.8	7.75	
D.O. Saturation (%)	91.3	90.3	89.0	90.4	91.5	88.3	90.13	-
D.O. (mg/L)	6.7	6.6	6.5	6.6	6.7	6.4	6.57	6.56
Turbidity (NTU)	6.5	6.5	7.3	7.4	7.4	7.5	7.10	-
SS (mg/L)	6.0	4.0	4.0	6.0	5.00	-		
Remarks				No dre	dging works	was observe	d.	

Station			C3 (NM6)				
Time (hh:mm)			13:17					
Water Depth (m)			6	.9				
Monitoring Depth (m)	1	.0	3	.5	5	.9		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.7	18.9	18.7	18.6	18.8	18.6	18.72	-
Salinity (ppt)	30.0	29.2	29.4	30.8	31.0	30.8	30.20	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.71	
D.O. Saturation (%)	92.4	91.4	90.5	91.9	91.8	89.5	91.25	-
D.O. (mg/L)	6.7	6.7	6.6	6.7	6.7	6.5	6.65	6.59
Turbidity (NTU)	9.2	9.5	9.5	9.4	9.7	9.7	9.50	-
SS (mg/L)	7.0	8.0	7.0	5.0	6.50	-		
Remarks				No dred	dging works	was observe	d.	

Station			IM	01			Co-ordinate	s
Time (hh:mm)			14:08	-14:09			Northing	Easting
Water Depth (m)			18	3.3		22.21.887	113.55.531	
Monitoring Depth (m)	1	.0	9	7.3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.1	21.2	18.1	18.1	18.1	18.1	19.13	-
Salinity (ppt)	29.0	29.1	32.1	31.2	32.1	31.3	30.80	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.72	
D.O. Saturation (%)	91.2	90.3	91.7	91.9	92.3	92.2	91.60	-
D.O. (mg/L)	6.4	6.4	6.7	6.7	6.7	6.8	6.61	6.74
Turbidity (NTU)	7.6	7.4	7.6	7.6	7.5	7.4	7.52	-
SS (mg/L)	6.0	6.0	5.0	5.0	4.0	5.00	-	
Remarks				No dred	dging works	was observe	d.	

Station			IIV	IO2			Co-ordinate	s		
Time (hh:mm)			14:19	-14:20			Northing	Easting		
Water Depth (m)			1	7.9			22.21.652	113.55.830		
Monitoring Depth (m)	1	.0	g	0.0	16	6.9				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.7	19.8	18.3	18.1	18.0	17.8	18.62	-		
Salinity (ppt)	30.1	29.9	31.7	31.8	32.4	32.3	31.35	-		
pH	7.7	7.8	7.8	7.7	7.8	7.8	7.76			
D.O. Saturation (%)	93.5	94.2	92.7	92.5	94.3	94.3	93.58	-		
D.O. (mg/L)	6.7	6.8	6.8	6.8	6.9	6.9	6.80	6.90		
Turbidity (NTU)	6.8	6.8	7.7	7.8	7.6	7.6	7.38	-		
SS (mg/L)	7.0	8.0	6.0	8.0	8.0	9.0	7.67	-		
Remarks		No dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			13:45	-13:46						
Water Depth (m)			8	.8						
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.9	18.8	18.5	18.5	18.7	18.5	18.66	-		
Salinity (ppt)	28.5	28.8	29.5	29.6	30.9	31.4	29.78	-		
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.68			
D.O. Saturation (%)	91.4	91.4	91.6	92.0	92.3	92.4	91.85	-		
D.O. (mg/L)	6.7	6.7	6.7	6.8	6.7	6.7	6.71	6.71		
Turbidity (NTU)	12.4	12.8	12.6	12.4	12.5	12.5	12.53	-		
SS (mg/L)	7.0	6.0	5.0	4.0	7.0	6.0	5.83	-		
Remarks		No dredging works was observed.								

Station			MF	PB2							
Time (hh:mm)			13:33	-13:34							
Water Depth (m)			9								
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.9	18.8	18.3	18.5	18.6	18.6	18.61	-			
Salinity (ppt)	29.1	28.6	30.3	29.9	31.4	31.3	30.09	-			
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.69				
D.O. Saturation (%)	91.6	91.4	92.7	92.0	92.5	92.5	92.12	-			
D.O. (mg/L)	6.7	6.7	6.8	6.8	6.7	6.7	6.73	6.72			
Turbidity (NTU)	11.0	11.1	11.5	11.4	11.4	11.4	11.30	-			
SS (mg/L)	7.0	6.0	7.0	7.0	6.0	6.0	6.50	-			
Remarks		No dredging works was observed.									

Station			IV	IP						
Time (hh:mm)			13:55	-13:56						
Water Depth (m)			5							
Monitoring Depth (m)	1.	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.9	19.0	-	-	18.8	19.1	18.93	-		
Salinity (ppt)	28.2	28.1	-	-	29.2	29.3	28.71	-		
pH	7.7	7.7	-	-	7.7	7.7	7.73			
D.O. Saturation (%)	89.7	87.2	-	-	86.3	89.0	88.05	-		
D.O. (mg/L)	6.6	6.4	-	-	6.3	6.5	6.43	6.38		
Turbidity (NTU)	10.7	10.7	-	-	10.6	10.6	10.65	-		
SS (mg/L)	5.0	5.0	-	-	5.0	6.0	5.25	-		
Remarks		No dredging works was observed.								

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	01	IMO2	IMO2		MPB1	MF	PB2	IV	IP .
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.6	6.6	N	N	N	N	N	N	Ν	N	N	N
DO (Depth-averaged)	4.2	4.0	6.6	6.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.8	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	7.5	7.5	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	01/08/2009
Weather & Ambient Temperature	Sunny, 16C

Station			C2 (NM5)			1				
Time (hh:mm)											
Water Depth (m)											
Monitoring Depth (m)	1	.0	10).1	19	9.2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	18.9	18.9	18.8	18.8	18.8	18.8	18.85	-			
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.77	-			
pH	8.8	8.8	8.9	8.8	8.8	8.8	8.84				
D.O. Saturation (%)	102.5	102.4	102.5	102.2	102.3	102.6	102.42	-			
D.O. (mg/L)	7.8	7.8	7.8	7.8	7.8	7.8	7.80	7.80			
Turbidity (NTU)	3.5	3.6	3.9	3.8	4.2	3.9	3.82	-			
SS (mg/L)	5.0	5.0	7.0	7.0	7.0	7.0	6.33	-			
Remarks		No dredging works was observed.									

Station			IM	101			Co-ore	dinates		
Time (hh:mm)				Northing	Easting					
Water Depth (m)			14	4.0			22.20.791	113.53.644		
Monitoring Depth (m)	1	.0	7	·.0	13	3.0		•		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	18.9	18.9	18.9	18.9	18.9	18.9	18.86	-		
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.76	-		
pH	8.8	8.7	8.7	8.8	8.7	8.7	8.74			
D.O. Saturation (%)	104.0	104.5	104.5	104.0	104.9	104.3	104.37	-		
D.O. (mg/L)	7.9	8.0	8.0	7.9	8.0	7.94	7.95	7.97		
Turbidity (NTU)	3.3	2.8	3.1	3.2	3.9	4.4	3.45	-		
SS (mg/L)	9.0	8.0	5.0	6.33	-					
Remarks		No dredging works was observed.								

Station			IM	02			Co-ord	dinates	
Time (hh:mm)				Northing	Easting				
Water Depth (m)			13	3.6			22.21.510	113.54.436	
Monitoring Depth (m)	1	.0	6	.8	12	2.6			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	18.9	18.9	18.9	18.8	18.9	18.9	18.85	-	
Salinity (ppt)	33.8	33.8	33.8	33.8	33.8	33.8	33.76	-	
pH	8.8	8.7	8.8	8.8	8.8	8.7	8.75		
D.O. Saturation (%)	103.7	103.1	103.6	103.3	103.8	103.7	103.53	-	
D.O. (mg/L)	7.9	7.8	7.9	7.9	7.9	7.90	7.88	7.90	
Turbidity (NTU)	3.3	3.5	3.2	3.3	4.2	4.0	3.58	-	
SS (mg/L)	5.0	5.17	-						
Remarks		No dredging works was observed.							

Station			MF	PB1			1			
Time (hh:mm)			11:21	-11:22						
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 (°C)	18.8	18.8	18.8	18.8	18.8	18.8	18.83	-		
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.7	33.72	-		
pH	8.7	8.7	8.7	8.7	8.7	8.7	8.68			
D.O. Saturation (%)	105.2	105.3	105.4	105.1	105.3	106.2	105.42	-		
D.O. (mg/L)	8.0	8.0	8.0	8.0	8.0	8.1	8.03	8.06		
Turbidity (NTU)	3.2	3.4	3.6	3.3	3.4	3.4	3.38	-		
SS (mg/L)	5.0	6.0	5.0	5.0	6.0	7.0	5.67	-		
Remarks		No dredging works was observed.								

Station			MI	PB2					
Time (hh:mm)									
Water Depth (m)									
Monitoring Depth (m)	1	.0	4	.1	7	.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	18.8	18.8	18.8	18.8	18.8	18.8	18.82	-	
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.7	33.73	-	
pH	8.9	8.8	8.8	8.8	8.9	8.8	8.82		
D.O. Saturation (%)	104.9	104.9	104.9	104.8	105.0	105.1	104.93	-	
D.O. (mg/L)	8.0	8.0	8.0	8.0	8.0	8.0	7.99	8.01	
Turbidity (NTU)	3.4	3.1	3.6	3.5	3.6	3.5	3.45	-	
SS (mg/L)	5.0	5.0	7.0	6.0	8.0	8.0	6.50	-	
Remarks	No dredging works was observed.								

Station			N	/IP				
Time (hh:mm)								
Water Depth (m)			5	5.4				
Monitoring Depth (m)	1	.0	2	2.7	4	.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.8	18.8	-	-	18.8	18.8	18.82	-
Salinity (ppt)	33.7	33.7	-	-	33.7	33.7	33.69	-
pH	8.7	8.7	-	-	8.5	8.7	8.62	
D.O. Saturation (%)	108.4	112.0	-	-	115.6	110.2	111.55	-
D.O. (mg/L)	8.3	8.5	-	-	8.8	8.4	8.50	8.61
Turbidity (NTU)	3.6	3.5	-	-	3.8	3.6	3.63	-
SS (mg/L)	4.0	4.0	5.0	4.25	-			
Remarks	No dredging works was observed.							

Compliance with Action ar	id Limit Lev	<u>rel</u>												
Parameter	As in	EM&A	C2*1	130%	IIV	IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.8	7.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.8	7.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.0	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	8.2	8.2	N	N	N	N	N	N	N	N	N	N

Sampling Date	01/08/2009
Weather & Ambient Temperature	Sunny, 17C

Station			C1 (NM3)								
Time (hh:mm)			15:16	-15:18								
Water Depth (m)			16	6.8								
Monitoring Depth (m)	1	.0	8									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	19.0	19.2	18.6	18.7	18.6	18.6	18.79	-				
Salinity (ppt)	33.7 33.7		33.7	33.7	33.7	33.7	33.67	-				
pH	9.0	9.0	9.1	9.1	9.1	9.1	9.05					
D.O. Saturation (%)	107.3	107.7	107.9	107.1	108.3	108.7	107.83	-				
D.O. (mg/L)	8.1	8.2	8.3	8.2	8.3	8.3	8.22	8.30				
Turbidity (NTU)	4.4	4.3	4.7	4.6	5.3	4.6	4.65	-				
SS (mg/L)	5.0	5.0	8.0	5.0	6.00	-						
Remarks		No dredging works was observed.										

Station			C3 (NM6)								
Time (hh:mm)			13:51	-13:52								
Water Depth (m)			8	.6								
Monitoring Depth (m)	1	.0	4	.6								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.7 18.7		18.7	18.7	18.7	18.7	18.71	-				
Salinity (ppt)	33.7 33.7		33.7	33.7	33.7	33.7	33.69	-				
pH	8.8	8.9	8.9	8.9	8.9	8.7	8.84					
D.O. Saturation (%)	107.1	108.4	107.5	109.2	107.9	113.9	109.00	-				
D.O. (mg/L)	8.2	8.3	8.2	8.3	8.2	8.7	8.32	8.47				
Turbidity (NTU)	3.5	3.8	3.6	3.8	3.7	4.3	3.78	-				
SS (mg/L)	6.0	6.0	6.0	5.0	5.67	-						
Remarks		No dredging works was observed.										

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			15:04	-15:06			Northing	Easting			
Water Depth (m)			18	3.3			22.21.560	113.54.427			
Monitoring Depth (m)	1	.0	9	7.3							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.2 19.2		18.7	18.7	18.6	18.6	18.84	-			
Salinity (ppt)	33.6 33.6		33.7	33.7	33.7	33.7	33.65	-			
pH	9.1	9.0	9.1	9.0	9.0	9.0	9.03				
D.O. Saturation (%)	108.8	107.8	108.4	107.9	109.4	108.3	108.43	-			
D.O. (mg/L)	8.2	8.2	8.3	8.3	8.4	8.3	8.26	8.33			
Turbidity (NTU)	4.3	4.4	4.6	4.7	4.5	4.4	4.48	-			
SS (mg/L)	4.0	5.0	5.0	4.0	4.67	-					
Remarks		No dredging works was observed.									

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			14:53	-14:55			Northing	Easting			
Water Depth (m)			17	7.9			22.21.320	113.54.822			
Monitoring Depth (m)	1	.0	9	6.9							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.1 19.0		18.7	18.7	18.7	18.7	18.82	-			
Salinity (ppt)	33.6 33.7		33.6	33.7	33.6	33.6	33.64	-			
pH	8.9	9.0	8.9	9.0	8.8	9.0	8.90				
D.O. Saturation (%)	109.2	108.4	111.1	109.1	113.9	109.6	110.22	-			
D.O. (mg/L)	8.3	8.2	8.5	8.3	8.7	8.4	8.40	8.54			
Turbidity (NTU)	4.6	4.3	4.5	4.4	4.3	4.4	4.42	-			
SS (mg/L)	5.0	4.0	6.0	6.0	5.17	-					
Remarks		No dredging works was observed.									

Station			MF	PB1							
Time (hh:mm)			14:21	-14:22							
Water Depth (m)			8	.8							
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.7	18.7	18.7	18.7	18.7	18.7	18.73	-			
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.7	33.71	-			
pH	9.0	9.1	9.0	9.1	9.0	8.9	9.00				
D.O. Saturation (%)	106.8	106.3	106.8	106.5	106.6	107.0	106.67	-			
D.O. (mg/L)	8.2	8.1	8.2	8.1	8.1	8.2	8.14	8.16			
Turbidity (NTU)	3.6	3.6	3.8	3.4	3.4	3.5	3.55	-			
SS (mg/L)	6.0	6.0	6.0	6.0	5.83	-					
Remarks		No dredging works was observed.									

Station			MF	PB2						
Time (hh:mm)			14:13	-14:14						
Water Depth (m)			9	.3						
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.7	18.7	18.7	18.7	18.7	18.7	18.72	-		
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.7	33.71	-		
pH	8.8	8.8	8.9	8.8	8.8	8.8	8.84			
D.O. Saturation (%)	108.8	107.3	107.5	109.9	108.1	113.2	109.13	-		
D.O. (mg/L)	8.3	8.2	8.2	8.4	8.3	8.6	8.33	8.45		
Turbidity (NTU)	3.7	3.4	3.6	3.7	3.8	3.7	3.65	-		
SS (mg/L)	5.0	5.0	6.0	7.0	6.0	6.0	5.83	-		
Remarks	No dredging works was observed.									

Station			IV	IP							
Time (hh:mm)			14:30	-14:31							
Water Depth (m)			5	.3							
Monitoring Depth (m)	1	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.8	18.8	-	-	18.8	18.8	18.77	-			
Salinity (ppt)	33.7	33.7	-	-	33.7	33.7	33.71	-			
pH	9.0	9.0	-	-	9.0	8.9	8.97				
D.O. Saturation (%)	110.0	107.5	-	-	108.1	111.5	109.28	-			
D.O. (mg/L)	8.4	8.2	-	-	8.3	8.5	8.34	8.38			
Turbidity (NTU)	3.5	3.6	-	-	3.9	3.9	3.73	-			
SS (mg/L)	7.0	7.0	-	6.0	6.50	-					
Remarks		No dredging works was observed.									

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		01	IMO2		MPB1		MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.4	8.4	N	N	N	N	N	N	Z	N	N	N
DO (Depth-averaged)	4.2	4.0	8.3	8.3	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.5	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	7.6	7.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	01/09/2009
Weather & Ambient Temperature	Sunny, 14C

Station			C2 (NM5)			1	
Time (hh:mm)			- '	-11:44			1	
Water Depth (m)			1					
Monitoring Depth (m)	1	.0						
Trial	1.0 10.2 19.3 Trial 1 Trial 2 Trial 1 Trial 2 Trial 1 Trial 3						Depth- averaged	Bottom
Water Temperature (°C)	18.5	18.6	18.6	18.6	18.5	18.6	18.55	-
Salinity (ppt)	33.7	33.7	33.7	33.7	33.7	33.5	33.65	-
pH	8.9	8.9	8.9	8.9	8.9	8.9	8.89	
D.O. Saturation (%)	88.4	88.7	88.3	88.6	88.6	88.8	88.57	-
D.O. (mg/L)	6.8	6.8	6.8	6.8	6.8	6.8	6.79	6.80
Turbidity (NTU)	4.9	4.9	6.2	6.3	7.3	7.3	6.15	-
SS (mg/L)	7.0	9.0	8.67	-				
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	101			Co-ore	dinates
Time (hh:mm)			11:03	-11:05			Northing	Easting
Water Depth (m)			1:	2.6			22.20.791	113.53.644
Monitoring Depth (m)	1	.0		•				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.5	18.5	18.5	18.5	18.4	18.4	18.48	-
Salinity (ppt)	33.7	33.3	33.6	33.5	33.6	33.6	33.54	-
pH	8.8	8.8	8.8	8.8	8.8	8.7	8.78	
D.O. Saturation (%)	87.7	91.1	91.7	87.8	88.1	93.9	90.05	-
D.O. (mg/L)	6.7	7.0	7.0	6.7	6.8	7.21	6.91	6.99
Turbidity (NTU)	5.0	5.3	5.7	5.6	6.2	6.5	5.72	-
SS (mg/L)	8.0	5.0	7.0	5.0	7.0	5.0	6.17	-
Remarks			С	redging wor	ks was obse	rved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			14	1.4			22.21.510	113.54.436
Monitoring Depth (m)	1	.0	7	.2	13	3.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.5	18.5	18.5	18.5	18.4	18.4	18.48	-
Salinity (ppt)	33.7	33.7	33.7	33.7	33.5	33.6	33.65	-
pH	8.9	8.9	8.9	8.9	8.9	8.9	8.87	
D.O. Saturation (%)	87.9	88.0	88.0	88.0	88.1	88.0	88.00	-
D.O. (mg/L)	6.7	6.8	6.8	6.7	6.8	6.76	6.75	6.77
Turbidity (NTU)	5.7	5.6	6.0	5.9	6.4	6.2	5.97	-
SS (mg/L)	6.0	9.0	8.00	-				
Remarks		-	D	redging wor	ks was obse	rved.	-	

Station			MF	PB1			1	
Time (hh:mm)			12:17	-12:18				
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 (°C)	18.4	18.4	18.4	18.4	18.4	18.4	18.44	-
Salinity (ppt)	33.4	33.8	33.7	33.7	33.7	33.7	33.67	-
pH	9.0	9.0	9.0	9.0	9.0	8.9	8.95	
D.O. Saturation (%)	90.1	90.1	90.1	90.0	90.1	90.1	90.08	-
D.O. (mg/L)	6.9	6.9	6.9	6.9	6.9	6.9	6.91	6.91
Turbidity (NTU)	5.2	5.3	5.6	5.5	5.9	5.8	5.55	-
SS (mg/L)	5.0	8.0	6.0	6.33	-			
Remarks			D	redging worl	ks was obse	rved.		

Station			M	PB2						
Time (hh:mm)										
Water Depth (m)			8	3.1						
Monitoring Depth (m)	1	.0	4	.1	7	1.1				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	18.4	18.4	18.4	18.4	18.4	18.4	18.44	-		
Salinity (ppt)	33.6	33.7	33.7	32.5	33.5	33.6	33.43	-		
pH	9.0	9.0	9.0	9.0	9.0	9.0	8.98			
D.O. Saturation (%)	90.3	90.1	90.2	90.0	90.0	90.2	90.13	-		
D.O. (mg/L)	6.9	6.9	6.9	7.0	6.9	6.9	6.93	6.92		
Turbidity (NTU)	6.1	6.2	6.4	6.4	7.1	7.3	6.58	-		
SS (mg/L)	6.0	6.0	8.0	5.0	9.0	5.0	6.50	-		
Remarks		Dredging works was observed.								

Station			N	IP			1				
Time (hh:mm)											
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 (°C)	18.4	18.4	-	-	18.4	18.4	18.43	-			
Salinity (ppt)	33.7	33.8	-	-	33.7	33.7	33.70	-			
pH	8.9	8.9	-	-	8.9	8.9	8.90				
D.O. Saturation (%)	92.2	90.5	-	-	94.4	91.1	92.05	-			
D.O. (mg/L)	7.1	6.9	-	-	7.2	7.0	7.06	7.12			
Turbidity (NTU)	7.1	7.1	-	-	7.1	7.2	7.13	-			
SS (mg/L)	6.0	6.0	8.0	7.00	-						
Remarks		Dredging works was observed.									

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.8	6.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.8	6.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.0	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	11.3	11.3	N	N	N	N	N	N	N	N	N	N

Sampling Date	01/09/2009
Weather & Ambient Temperature	Sunny, 15C

Station			C1 (NM3)						
Time (hh:mm)			16:25							
Water Depth (m)			17	7.2						
Monitoring Depth (m)	1	.0	8	.6	16	6.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	17.8	17.8	18.2	18.4	18.5	18.5	18.19	-		
Salinity (ppt)	33.3	33.3	33.5	33.6	33.6	33.1	33.40	-		
pH	8.9	8.9	8.9	8.9	8.8	8.8	8.86			
D.O. Saturation (%)	94.9	95.2	93.5	94.1	95.7	98.0	95.23	-		
D.O. (mg/L)	7.4	7.4	7.2	7.2	7.3	7.5	7.36	7.44		
Turbidity (NTU)	6.5	6.4	6.6	6.7	6.8	6.8	6.63	-		
SS (mg/L)	9.0	8.0	9.0	8.0	5.0	7.0	7.67	-		
Remarks		Dredging works was observed.								

Station			C3 (NM6)										
Time (hh:mm)			15:03											
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 (°C)	18.5	18.5	18.5	18.5	18.4	18.4	18.44	-						
Salinity (ppt)	33.7	33.7	33.7	33.5	33.7	33.5	33.63	-						
pH	8.9	8.9	8.8	8.9	8.8	8.9	8.85							
D.O. Saturation (%)	91.1	92.0	92.2	91.1	94.6	91.7	92.12	-						
D.O. (mg/L)	7.0	7.1	7.1	7.0	7.3	7.0	7.07	7.15						
Turbidity (NTU)	5.6	5.4	5.9	5.7	7.7	7.6	6.32	-						
SS (mg/L)	8.0	10.0	10.0	9.0	8.83	-								
Remarks				Dredo	Dredging works was observed.									

Station			IM	01			Co-ordinate	s		
Time (hh:mm)			16:13	-16:15			Northing	Easting		
Water Depth (m)			12		22.21.560	113.54.427				
Monitoring Depth (m)	1	.0	6							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	17.8	17.8	18.2	18.1	18.3	18.5	18.12	-		
Salinity (ppt)	33.3	33.3	33.5	33.3	33.8	31.4	33.09	-		
pH	8.9	8.9	8.9	8.9	8.9	8.9	8.86			
D.O. Saturation (%)	96.4	97.0	97.5	93.4	98.7	94.4	96.23	-		
D.O. (mg/L)	7.5	7.6	7.5	7.2	7.6	7.3	7.45	7.46		
Turbidity (NTU)	6.9	7.1	7.1	7.2	7.1	7.3	7.12	-		
SS (mg/L)	9.0	9.0	9.0	12.0	10.00	-				
Remarks		Dredging works was observed.								

Station			IM	02			Co-ordinate	s		
Time (hh:mm)			16:04	-16:05			Northing	Easting		
Water Depth (m)			14		22.21.320	113.54.822				
Monitoring Depth (m)	1	.0	7							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	17.8	17.8	18.1	18.2	18.3	18.4	18.10	-		
Salinity (ppt)	32.3	33.3	33.4	33.5	33.6	33.7	33.29	-		
pH	8.9	8.9	8.8	8.8	8.8	8.8	8.83			
D.O. Saturation (%)	96.4	96.4	95.4	96.9	97.9	96.8	96.63	-		
D.O. (mg/L)	7.6	7.5	7.4	7.5	7.5	7.4	7.48	7.49		
Turbidity (NTU)	6.5	6.5	7.1	6.8	7.9	7.6	7.07	-		
SS (mg/L)	10.0	10.0	9.0	10.0	10.00	-				
Remarks		Dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			15:31							
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 (°C)	18.5	18.5	18.5	18.5	18.4	18.4	18.46	-		
Salinity (ppt)	33.7	33.7	33.6	33.7	33.8	30.3	33.13	-		
pH	9.0	9.0	9.0	9.0	9.0	8.9	8.96			
D.O. Saturation (%)	91.1	90.5	90.5	90.4	90.6	90.8	90.65	-		
D.O. (mg/L)	7.0	6.9	6.9	6.9	7.0	7.1	6.98	7.03		
Turbidity (NTU)	4.4	4.2	5.8	5.9	5.9	6.0	5.37	-		
SS (mg/L)	6.0	8.0	5.0	6.0	6.0	9.0	6.67	-		
Remarks		Dredging works was observed.								

Station			MF	PB2						
Time (hh:mm)			15:23	-15:24						
Water Depth (m)			8							
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Depth-averaged	Bottom						
Water Temperature (°C)	18.5	18.5	18.46	-						
Salinity (ppt)	33.7	33.7	33.71	-						
pH	8.9	8.9	8.9	8.9	8.9	8.9	8.92			
D.O. Saturation (%)	90.7	90.4	90.6	90.8	91.8	91.0	90.88	-		
D.O. (mg/L)	7.0	6.9	6.97	7.01						
Turbidity (NTU)	5.2	5.4	5.83	-						
SS (mg/L)	6.0	8.0	8.0	10.0	5.0	8.0	7.50	-		
Remarks		Dredging works was observed.								

Station			IV	IP								
Time (hh:mm)			15:40	-15:40								
Water Depth (m)			5									
Monitoring Depth (m)	1	.0	2									
Trial	Trial 1	Trial 2	Depth-averaged	Bottom								
Water Temperature (°C)	18.5	18.5	18.47	-								
Salinity (ppt)	32.6	33.7	-	33.43	-							
pH	9.0	9.0	-	-	9.0	9.0	8.97					
D.O. Saturation (%)	91.2	91.0	-	-	91.4	91.8	91.35	-				
D.O. (mg/L)	7.0	7.0 7.0 7.0 7.0 7.02 7.0										
Turbidity (NTU)	5.0	5.0 5.0 5.7 5.8 5.38 -										
SS (mg/L)	7.0	9.0		-	6.0	9.0	7.75	-				
Remarks		Dredging works was observed.										

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2		MPB1		MPB2		IV.	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.3	7.3	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.2	7.2	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.4	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	10.7	10.7	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	10/01/2009
Weather & Ambient Temperature	Fine, 14C

Station			C2 (NM5)			1			
Time (hh:mm)			<u> </u>	-13:16						
Water Depth (m)			1							
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Depth- averaged	Bottom							
Water Temperature (°C)	15.2	15.2	15.0	15.0	14.8	14.8	15.01	-		
Salinity (ppt)	35.5	35.5	37.0	37.0	37.5	37.5	36.69	-		
pH	8.2	8.2	8.2	8.2	8.0	8.1	8.12			
D.O. Saturation (%)	113.4	112.2	99.9	101.2	102.4	101.7	105.13	-		
D.O. (mg/L)	8.0	7.9	7.42	7.20						
Turbidity (NTU)	4.1	3.9	5.1	4.9	5.4	5.5	4.82	-		
SS (mg/L)	8.0	7.0	8.0	9.0	7.0	11.0	8.33	-		
Remarks		Dredging works was observed.								

Station			IM	01			Co-ore	dinates	
Time (hh:mm)			12:12	-12:13			Northing	Easting	
Water Depth (m)			22.22.002	113.55.393					
Monitoring Depth (m)	1	.0		3					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	15.5	15.4	15.2	15.2	14.7	14.7	15.14	-	
Salinity (ppt)	35.4	35.4 35.4 36.1 36.0 37.2 37.1					36.20	-	
pH	8.2	8.1	8.2	8.2	8.3	8.3	8.20		
D.O. Saturation (%)	110.3	109.3	105.0	107.37	-				
D.O. (mg/L)	7.8	7.7	7.58	7.46					
Turbidity (NTU)	4.4 4.4 4.9 4.9 5.6 5.8							-	
SS (mg/L)	8.0	8.0	8.0	7.0	6.0	6.0	7.17	-	
Remarks	Dredging works was observed.								

Station			IM		Co-ord	dinates			
Time (hh:mm)			12:23	-12:25			Northing	Easting	
Water Depth (m)			10	0.8			22.21.765	113.55.779	
Monitoring Depth (m)	1	.0							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	15.8	16.3	15.5	15.5	15.1	15.1	15.53	-	
Salinity (ppt)	35.2	35.2	36.0	35.9	36.9	36.9	36.04	-	
pH	8.2	8.2	8.2	8.1	8.2	8.1	8.15		
D.O. Saturation (%)	108.9	110.8	106.2	106.0	105.0	104.2	106.85	-	
D.O. (mg/L)	7.6	7.8	7.50	7.35					
Turbidity (NTU)	4.8	4.9	5.23	-					
SS (mg/L)	8.0	7.0	7.83	-					
Remarks		Dredging works was observed.							

Station			MF	PB1			1				
Time (hh:mm)			12:47	-12:48							
Water Depth (m)											
Monitoring Depth (m)	1	.0	4	.4	7	.8					
Trial	Trial 1	Trial 2	Depth- averaged	Bottom							
Water Temperature (°C)	14.9	14.9	14.91	-							
Salinity (ppt)	35.0	34.7	36.0	35.8	36.3	36.1	35.65	-			
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.15				
D.O. Saturation (%)	114.3	113.2	108.1	107.1	109.9	108.6	110.20	-			
D.O. (mg/L)	8.1	8.1 8.1 7.7 7.6 7.8 7.7									
Turbidity (NTU)	4.4	4.5	5.3	5.1	5.7	5.5	5.08	-			
SS (mg/L)	7.0	7.0	9.0	7.0	9.0	7.0	7.67	-			
Remarks		Dredging works was observed.									

Station			MI	PB2			1				
Time (hh:mm)			12:36	-12:37							
Water Depth (m)											
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	15.5	15.6	15.1	15.1	15.0	14.9	15.19	-			
Salinity (ppt)	34.8	34.8	35.70	-							
pH	8.2	8.1	8.1	8.2	8.2	8.1	8.14				
D.O. Saturation (%)	109.2	109.2	105.7	106.1	107.9	107.0	107.52	-			
D.O. (mg/L)	7.7	7.7 7.7 7.5 7.5 7.6 7.6 7.62 7									
Turbidity (NTU)	5.1	5.1	5.1	5.2	5.2	5.5	5.20	-			
SS (mg/L)	8.0	9.0	6.0	8.0	6.0	9.0	7.67	-			
Remarks		Dredging works was observed.									

Station			N	IP			1					
Time (hh:mm)			12:57	-12:58								
Water Depth (m)												
Monitoring Depth (m)	1	.0										
Trial	Trial 1	Trial 2	Depth- averaged	Bottom								
Water Temperature (°C)	15.1	15.2	15.1	15.11	-							
Salinity (ppt)	34.5	34.3	-	-	35.7	35.8	35.10	-				
pH	8.1	8.0	-	-	8.0	8.2	8.09					
D.O. Saturation (%)	111.4	111.0	-	-	112.8	112.9	112.03	-				
D.O. (mg/L)	7.9	7.9 7.9 - 8.0 8.0 7.95 7.99										
Turbidity (NTU)	4.3	4.3	-	-	4.6	4.7	4.48	-				
SS (mg/L)	8.0	6.0	-	-	8.0	6.0	7.00	-				
Remarks		Dredging works was observed.										

Compliance with Action at	ia Limit Lev	<u>'eı</u>												
Parameter	As in	EM&A	C2*1	30%	IIV	101	IM	02		MPB1	MF	PB2	IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.2	7.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.4	7.4	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	6.3	NA	N	N	N	N	N	N	Ν	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	10/01/2009
Weather & Ambient Temperature	Fine, 14C

Station			C1 (NM3)						
Time (hh:mm)			17:21	-17:23						
Water Depth (m)			16	6.0						
Monitoring Depth (m)	1	.0	8							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	15.3	15.2	14.8	14.8	14.7	14.7	14.91	-		
Salinity (ppt)	36.3	36.3	37.1	37.0	37.6	37.6	36.97	-		
pH	8.3	8.3	8.2	8.2	7.9	8.0	8.13			
D.O. Saturation (%)	112.0	112.4	100.6	100.5	101.7	101.9	104.85	-		
D.O. (mg/L)	7.9	7.9	7.1	7.1	7.2	7.2	7.39	7.17		
Turbidity (NTU)	4.4	4.5	5.2	4.9	5.7	5.8	5.08	-		
SS (mg/L)	10.0	9.0	11.0	8.0	10.0	8.0	9.33	-		
Remarks		Dredging works was observed.								

Station			C3 (NM6)							
Time (hh:mm)			16:16	-16:17							
Water Depth (m)			6	.8							
Monitoring Depth (m)	1	.0	3								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	15.2	15.3	14.7	14.7	14.7	14.7	14.88	-			
Salinity (ppt)	34.9	34.8	36.6	36.4	37.1	37.1	36.13	-			
pH	8.1	8.1	8.2	8.2	8.0	8.2	8.13				
D.O. Saturation (%)	114.3	114.7	111.1	110.2	112.0	111.2	112.25	-			
D.O. (mg/L)	8.1	8.1	7.8	7.8	7.9	7.9	7.94	7.91			
Turbidity (NTU)	4.9	4.8	5.2	5.2	5.8	5.7	5.27	-			
SS (mg/L)	9.0	7.0	9.0	8.0	7.0	9.0	8.17	-			
Remarks		Dredging works was observed.									

Station			IM	01			Co-ordinate	s		
Time (hh:mm)			16:56	-16:58			Northing	Easting		
Water Depth (m)			9	.2			22.22.005	113.55.390		
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 (°C)	15.3	15.6	15.5	15.5	14.9	14.8	15.27	-		
Salinity (ppt)	35.2	35.2	36.1	36.1	37.0	36.9	36.05	-		
pH	8.2 8.2		8.1	8.2	8.1	8.2	8.15			
D.O. Saturation (%)	115.2	115.3	109.9	108.4	109.0	108.9	111.12	-		
D.O. (mg/L)	8.1	8.1	7.7	7.6	7.7	7.7	7.82	7.68		
Turbidity (NTU)	4.8	4.8	5.5	5.6	6.2	6.3	5.53	-		
SS (mg/L)	8.0 8.0 9.0 9.0 9.0 8.0						8.50	-		
Remarks		Dredging works was observed.								

Station			IM	02			Co-ordinate	s		
Time (hh:mm)			17:03	-17:06			Northing	Easting		
Water Depth (m)			10).2			22.21.761	113.55.777		
Monitoring Depth (m)	1	1.0 5.1 9.2				.2				
Trial	Trial 1	Trial 2	Trial 1	rial 1 Trial 2 Trial 1 Trial :		Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	15.4	15.4	15.2	15.2	14.7	14.7	15.10	-		
Salinity (ppt)	35.5	35.4	36.2	36.2	37.2	37.1	36.26	-		
pH	8.2 8.1		8.1	8.1	8.1	8.0	8.10			
D.O. Saturation (%)	110.5	109.0	106.5	105.3	105.7	107.0	107.33	-		
D.O. (mg/L)	7.8	7.7	7.5	7.4	7.5	7.5	7.56	7.51		
Turbidity (NTU)	4.9	4.8	5.1	5.1	5.5	5.3	5.12	-		
SS (mg/L)	8.0	8.0	9.0	8.0	8.00	-				
Remarks		Dredging works was observed.								

Station			MF	PB1					
Time (hh:mm)			16:38	-16:40					
Water Depth (m)			8	.6					
Monitoring Depth (m)	1	.0	4	.6					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	14.9	15.0	14.9	14.9	14.8	14.8	14.88	-	
Salinity (ppt)	34.1	34.1	35.6	35.6	36.2	36.0	35.27	-	
pH	8.1	8.2	8.2	8.2	8.1	8.2	8.14		
D.O. Saturation (%)	112.6	113.6	105.9	107.3	107.1	108.3	109.13	-	
D.O. (mg/L)	8.0	8.1	7.5	7.6	7.6	7.7	7.76	7.64	
Turbidity (NTU)	4.0	4.1	4.5	4.3	5.0	5.0	4.48	-	
SS (mg/L)	9.0	9.0	8.0	9.0	7.0	9.0	8.50	-	
Remarks	Dredging works was observed.								

Station			MF	B2							
Time (hh:mm)			16:28	-16:29							
Water Depth (m)			8	.2							
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	15.4	15.3	15.1	15.0	14.9	14.9	15.11	-			
Salinity (ppt)	34.9	35.1	35.5	35.6	36.8	36.7	35.74	-			
pH	8.1	8.2	8.1	8.2	8.1	8.2	8.13				
D.O. Saturation (%)	113.2	112.4	109.6	108.3	110.2	109.7	110.57	-			
D.O. (mg/L)	8.0	8.0	7.8	7.7	7.8	7.7	7.82	7.75			
Turbidity (NTU)	4.5	4.5	4.9	5.0	5.3	5.4	4.93	-			
SS (mg/L)	10.0	10.0	7.0	8.0	9.0	10.0	9.00	-			
Remarks		Dredging works was observed.									

Station			IV	IP						
Time (hh:mm)			16:47	-16:48						
Water Depth (m)			5	.3						
Monitoring Depth (m)	1	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	15.1	15.0	-	-	15.0	15.0	15.02	-		
Salinity (ppt)	34.4	34.4	-	-	35.7	35.8	35.06	-		
pH	8.1 8.1 8.1 8.1						8.11			
D.O. Saturation (%)	114.1	114.2	-	-	115.4	113.6	114.33	-		
D.O. (mg/L)	8.1	8.1	-	-	8.2	8.1	8.11	8.11		
Turbidity (NTU)	4.5	4.6	-	-	4.8	4.8	4.68	-		
SS (mg/L)	7.0	8.0	-	9.0	7.50	-				
Remarks		Dredging works was observed.								

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2			MPB1	MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.5	7.5	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.7	7.7	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	6.7	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	11.4	11.4	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	11/01/2009
Weather & Ambient Temperature	Sunny, 16C

Station			C2 (NM5)			1				
Time (hh:mm)			- 1	-13:24			1				
Water Depth (m)				1							
Monitoring Depth (m)	1	.0	9.4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	17.8	17.8	17.6	17.6	17.6	17.6	17.66	-			
Salinity (ppt)	32.5	32.4	33.5	33.5	34.3	34.4	33.42	-			
pH	8.3	8.2	8.4	8.4	8.3	8.4	8.34				
D.O. Saturation (%)	99.3	99.9	97.6	97.8	99.8	99.2	98.93	-			
D.O. (mg/L)	6.6	6.7	6.5	6.5	6.7	6.6	6.62	6.65			
Turbidity (NTU)	2.9	3.1	4.1	3.9	4.7	4.5	3.87	-			
SS (mg/L)	6.0	9.0	7.0	6.0	9.0	7.0	7.33	-			
Remarks		Dredging works was observed.									

Station			IM	01			Co-ore	dinates		
Time (hh:mm)			13:08	-13:11			Northing	Easting		
Water Depth (m)				22.21.997	113.55.390					
Monitoring Depth (m)	1	.0		3						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	18.0	18.0	17.7	17.7	17.7	17.7	17.79	-		
Salinity (ppt)	27.1	27.1	29.5	29.5	31.4	31.3	29.31	-		
pH	8.2	8.2	8.3	8.3	8.3	8.3	8.29			
D.O. Saturation (%)	88.8	88.5	91.5	91.3	94.2	94.9	91.53	-		
D.O. (mg/L)	6.1	6.1	6.3	6.2	6.4	6.42	6.24	6.40		
Turbidity (NTU)	3.9	3.8	4.5	4.6	5.6	5.5	4.65	-		
SS (mg/L)	6.0	7.0	6.0	7.0	9.0	11.0	7.67	-		
Remarks		Dredging works was observed.								

Station			IM			Co-ord	dinates		
Time (hh:mm)		•	12:55	-12:58			Northing	Easting	
Water Depth (m)			10	0.0			22.21.756	113.56.786	
Monitoring Depth (m)	1.0 5.0 9.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	18.5	18.5	17.6	17.6	17.5	17.5	17.85	-	
Salinity (ppt)	28.5	28.5	31.1	31.0	33.7	33.7	31.08	-	
pH	8.3	8.3	8.4	8.4	8.4	8.4	8.39		
D.O. Saturation (%)	92.5	91.2	93.3	93.4	95.6	96.8	93.80	-	
D.O. (mg/L)	6.3	6.2	6.3	6.3	6.4	6.51	6.34	6.47	
Turbidity (NTU)	4.1	4.3	5.2	4.9	6.6	6.3	5.23	-	
SS (mg/L)	7.0	9.0	8.50	-					
Remarks		Dredging works was observed.							

Station			MF	PB1			1			
Time (hh:mm)			13:47	-13:50						
Water Depth (m)			7	.6						
Monitoring Depth (m)	1	.0	3	.8	6	.6				
Trial	Trial 1	Trial 2	Depth- averaged	Bottom						
Water Temperature (°C)	18.0	18.0	17.7	17.7	17.7	17.7	17.79	-		
Salinity (ppt)	26.5	26.5	29.2	29.3	30.2	30.1	28.63	-		
pH	8.2	8.2	8.3	8.3	8.3	8.3	8.29			
D.O. Saturation (%)	90.9	90.9	89.9	90.5	92.9	92.5	91.27	-		
D.O. (mg/L)	6.2	6.3	6.2	6.2	6.3	6.3	6.24	6.31		
Turbidity (NTU)	3.3	3.5	4.5	4.2	4.8	5.1	4.23	-		
SS (mg/L)	8.0	7.0	7.0	7.83	-					
Remarks		Dredging works was observed.								

Station			MF	PB2			1	
Time (hh:mm)								
Water Depth (m)			9	0.0				
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	18.0	18.0	17.7	17.7	17.7	17.7	17.79	-
Salinity (ppt)	26.9	27.0	29.7	29.7	30.1	30.1	28.89	-
pH	8.2	8.2	8.3	8.3	8.2	8.3	8.23	
D.O. Saturation (%)	89.1	90.7	89.7	88.7	92.3	90.1	90.10	-
D.O. (mg/L)	6.1	6.2	6.1	6.0	6.3	6.1	6.15	6.20
Turbidity (NTU)	3.3	3.3	3.7	3.8	4.5	4.3	3.82	-
SS (mg/L)	8.0	11.0	6.0	10.0	7.0	11.0	8.83	-
Remarks			D	redging wor	ks was obse	rved.		

Station			N	IP			1			
Time (hh:mm)										
Water Depth (m)			5	.5						
Monitoring Depth (m)	1	.0	2	.8	4	.5				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	18.0	18.1	-	-	17.7	17.7	17.87	-		
Salinity (ppt)	26.4	26.5	-	-	29.3	29.3	27.86	-		
pH	8.2	8.2	-	-	8.2	8.2	8.18			
D.O. Saturation (%)	90.0	89.6	-	-	92.3	92.4	91.08	-		
D.O. (mg/L)	6.2	6.2	-	-	6.3	6.3	6.25	6.31		
Turbidity (NTU)	3.6	3.8	-	-	4.2	4.4	4.00	-		
SS (mg/L)	9.0	9.0 7.0 9.0 6.0 7.75								
Remarks		Dredging works was observed.								

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.7	6.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.6	6.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.0	NA	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	11/01/2009
Weather & Ambient Temperature	Fine, 15C

Station			C1 (NM3)						
Time (hh:mm)			18:36							
Water Depth (m)			16							
Monitoring Depth (m)	1	.0	8	1.3	15	5.6				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	17.6	17.6	17.5	17.5	17.5	17.6	17.56	-		
Salinity (ppt)	33.4	33.4	33.8	33.9	34.2	34.2	33.84	-		
pH	8.4	8.4	8.4	8.4	8.3	8.4	8.39			
D.O. Saturation (%)	98.2	97.6	97.2	96.2	99.6	97.0	97.63	-		
D.O. (mg/L)	6.6	6.5	6.5	6.5	6.7	6.5	6.53	6.57		
Turbidity (NTU)	2.7	2.8	3.3	3.2	3.8	3.9	3.28	-		
SS (mg/L)	6.0	8.0	6.0	10.0	7.83	-				
Remarks		Dredging works was observed.								

Station			C3 (NM6)							
Time (hh:mm)			17:09								
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 (°C)	18.2	18.2	17.9	17.9	17.4	17.5	17.84	-			
Salinity (ppt)	27.8	27.7	29.6	29.6	32.5	32.6	29.96	-			
pH	8.2	8.2	8.2	8.2	8.3	8.3	8.23				
D.O. Saturation (%)	93.9	93.9	95.4	95.7	96.6	97.1	95.43	-			
D.O. (mg/L)	6.4	6.4	6.5	6.5	6.5	6.5	6.48	6.54			
Turbidity (NTU)	2.5	2.6	3.1	3.2	3.8	3.6	3.13	-			
SS (mg/L)	6.0	6.0	7.0	6.0	6.00	-					
Remarks		Dredging works was observed.									

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			18:11	-18:13			Northing	Easting			
Water Depth (m)			9		22.22.004	113.55.393					
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 (°C)	18.1	18.1	17.8	17.8	17.8	17.7	17.88	-			
Salinity (ppt)	27.5	27.5	31.3	31.5	32.3	32.5	30.42	-			
pH	8.3	8.3	8.4	8.4	8.4	8.4	8.34				
D.O. Saturation (%)	89.1	89.4	91.4	91.2	93.0	93.2	91.22	-			
D.O. (mg/L)	6.1	6.2	6.2	6.2	6.3	6.3	6.20	6.28			
Turbidity (NTU)	3.6	3.8	5.1	5.2	5.9	6.0	4.93	-			
SS (mg/L)	6.0	7.0	8.0	6.0	6.33	-					
Remarks		Dredging works was observed.									

Station			IM	102			Co-ordinate	s		
Time (hh:mm)			18:23	-18:26		Northing	Easting			
Water Depth (m)			10	0.2			22.21.758	113.55.783		
Monitoring Depth (m)	1	.0	5							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.3	18.4	17.9	17.9	17.6	17.6	17.93	-		
Salinity (ppt)	28.9	28.9	32.1	32.0	34.1	34.1	31.67	-		
pH	8.2	8.2	8.3	8.3	8.4	8.4	8.31			
D.O. Saturation (%)	93.3	92.3	94.5	93.3	96.9	97.1	94.57	-		
D.O. (mg/L)	6.3	6.2	6.4	6.3	6.5	6.5	6.38	6.50		
Turbidity (NTU)	4.0	3.8	4.5	4.3	5.2	5.4	4.53	-		
SS (mg/L)	11.0	7.0	11.0	11.0	9.83	-				
Remarks		Dredging works was observed.								

Station			MF	PB1					
Time (hh:mm)			17:37						
Water Depth (m)			7						
Monitoring Depth (m)	1	.0	3	1.9	6	.8			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.1	18.1	17.8	17.8	17.8	17.8	17.88	-	
Salinity (ppt)	26.9	26.9	29.2	29.3	31.0	30.9	29.04	-	
pH	8.2	8.2	8.3	8.3	8.3	8.3	8.26		
D.O. Saturation (%)	92.2	91.4	91.4	92.6	94.5	93.2	92.55	-	
D.O. (mg/L)	6.4	6.3	6.3	6.3	6.4	6.3	6.34	6.38	
Turbidity (NTU)	3.2	3.0	3.6	3.8	4.2	4.4	3.70	-	
SS (mg/L)	7.0	11.0	7.0	8.0	7.0	8.0	8.00	-	
Remarks		Dredging works was observed.							

Station			MF	PB2					
Time (hh:mm)			17:26						
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 (°C)	18.2	18.1	17.8	17.8	17.8	17.8	17.90	-	
Salinity (ppt)	27.2	27.3	30.1	30.2	30.7	30.7	29.36	-	
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.15		
D.O. Saturation (%)	90.1	90.1	90.2	89.8	91.7	92.0	90.65	-	
D.O. (mg/L)	6.2	6.2	6.2	6.1	6.2	6.3	6.20	6.25	
Turbidity (NTU)	3.4	3.2	3.8	3.9	4.4	4.6	3.88	-	
SS (mg/L)	6.0	9.0	6.0	9.0	6.0	7.0	7.17	-	
Remarks		Dredging works was observed.							

Station			IV	IP					
Time (hh:mm)			17:47						
Water Depth (m)			5	.7					
Monitoring Depth (m)	1.	.0	2	.9	4	.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.1	18.1	-	-	17.8	17.8	17.96	-	
Salinity (ppt)	26.7	26.7	-	-	29.3	29.5	28.04	-	
pH	8.2	8.2	-	-	8.3	8.2	8.23		
D.O. Saturation (%)	92.1	90.7	-	-	95.4	94.2	93.10	-	
D.O. (mg/L)	6.3	6.3	-	-	6.5	6.4	6.39	6.48	
Turbidity (NTU)	3.9	4.2	-	-	4.5	4.6	4.30	-	
SS (mg/L)	10.0	9.0	9.25	-					
Remarks		Dredging works was observed.							

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		101	IMO2		MPB1		MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	4.2	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	9.0	9.0	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/01/2009
Weather & Ambient Temperature	Fine, 17C

Station			C2 (NM5)			1	
Time (hh:mm)			14:01	-14:03				
Water Depth (m)								
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.8	18.5	17.8	17.9	17.8	17.8	18.11	-
Salinity (ppt)	27.9	28.3	31.7	31.8	32.0	31.9	30.60	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.59	
D.O. Saturation (%)	82.2	81.8	82.1	81.2	81.6	82.4	81.88	-
D.O. (mg/L)	6.2	6.2	6.2	6.1	6.2	6.2	6.19	6.19
Turbidity (NTU)	3.4	3.5	3.5	3.4	4.3	4.4	3.75	-
SS (mg/L)	10.0	7.0	9.0	10.0	6.0	7.0	8.17	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	01			Co-ore	dinates		
Time (hh:mm)			13:42	-13:44			Northing	Easting		
Water Depth (m)				22.22.014	113.54.231					
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	18.9	20.7	17.8	17.9	18.0	17.6	18.47	-		
Salinity (ppt)	29.6	28.9	31.9	31.8	31.6	31.9	30.96	-		
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.61			
D.O. Saturation (%)	83.3	81.3	83.0	82.8	83.6	84.4	83.07	-		
D.O. (mg/L)	6.2	5.9	6.3	6.2	6.3	6.39	6.23	6.34		
Turbidity (NTU)	3.1	3.3	3.2	3.2	3.3	3.2	3.22	-		
SS (mg/L)	8.0 6.0 8.0 7.0 7.0 8.0						7.33	-		
Remarks		Dredging works was observed.								

Station			IM	02			Co-ord	dinates		
Time (hh:mm)			13:30	-13:32			Northing	Easting		
Water Depth (m)				22.21.822	113.55.783					
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	19.4	17.7	17.7	17.8	17.7	17.7	18.00	-		
Salinity (ppt)	29.9	28.1	32.0	32.0	32.2	31.9	31.00	-		
pH	7.6	7.6	7.6	7.7	7.6	7.7	7.66			
D.O. Saturation (%)	83.6	82.2	82.6	82.4	84.4	81.7	82.82	-		
D.O. (mg/L)	6.2	6.2	6.2	6.3	6.4	6.22	6.24	6.30		
Turbidity (NTU)	2.5	2.6	3.2	3.1	3.6	3.7	3.12	-		
SS (mg/L)	8.0	9.0	8.0	6.0	10.0	7.0	8.00	-		
Remarks		Dredging works was observed.								

Station			MF	PB1			1	
Time (hh:mm)			14:20	-14:21				
Water Depth (m)								
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	18.6	18.5	18.1	18.1	18.3	18.0	18.27	-
Salinity (ppt)	28.2	28.6	28.9	29.5	31.1	31.5	29.64	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.59	
D.O. Saturation (%)	82.3	82.1	82.8	82.9	83.5	84.7	83.05	-
D.O. (mg/L)	6.3	6.2	6.3	6.3	6.3	6.4	6.29	6.33
Turbidity (NTU)	10.4	10.4	10.5	10.6	11.1	11.0	10.67	-
SS (mg/L)	7.0	9.0	8.17	-				
Remarks			D	redging worl	ks was obse	rved.		•

Station			M	PB2					
Time (hh:mm)			14:29	-14:31					
Water Depth (m)									
Monitoring Depth (m)	1	.0	.1						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	18.6	18.9	18.0	18.3	18.1	18.3	18.35	-	
Salinity (ppt)	28.4	28.1	31.0	29.0	30.7	31.1	29.72	-	
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.60		
D.O. Saturation (%)	80.7	78.7	81.6	78.4	82.7	77.8	79.98	-	
D.O. (mg/L)	6.1	6.0	6.2	6.0	6.3	5.8	6.05	6.05	
Turbidity (NTU)	5.9	6.0	7.0	6.9	8.2	8.1	7.02	-	
SS (mg/L)	8.0	7.0	10.0	7.0	11.0	8.0	8.50	-	
Remarks	Dredging works was observed.								

Station			N	IP			1			
Time (hh:mm)			14:12	-14:12						
Water Depth (m)										
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 (°C)	18.7	18.6	-	-	18.9	18.8	18.75	-		
Salinity (ppt)	28.0	26.8	-	-	28.1	29.1	27.99	-		
pH	7.6	7.6	-	-	7.6	7.6	7.60			
D.O. Saturation (%)	80.9	81.3	-	-	80.9	80.4	80.88	-		
D.O. (mg/L)	6.1	6.2	-	-	6.1	6.1	6.13	6.08		
Turbidity (NTU)	6.9	6.9	-	-	7.1	7.1	7.00	-		
SS (mg/L)	7.0	9.0	9.00	-						
Remarks		Dredging works was observed.								

Compliance with Action at	Compliance with Action and Limit Level													
Parameter	As in	EM&A	C2*1	30%	IIV	IMO1 IMO2				MPB1	MPB2		MP	
	Action Limit		Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedance of Limit Level		Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.2	6.2	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	4.9	NA	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	10.6	10.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	12/01/2009
Weather & Ambient Temperature	Cloudy, 16C

Station			C1 (NM3)							
Time (hh:mm)			19:25	-19:26							
Water Depth (m)			16	6.3							
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.7	18.7	18.0	17.8	17.7	17.6	18.10	-			
Salinity (ppt)	29.3	29.3	31.5	31.8	32.1	32.3	31.07	-			
pH	7.6	7.6	7.6	7.6	7.6	7.7	7.64				
D.O. Saturation (%)	81.4	80.4	79.1	80.5	81.6	78.4	80.23	-			
D.O. (mg/L)	6.1	6.1	6.0	6.1	6.2	5.9	6.05	6.04			
Turbidity (NTU)	2.0	2.0	2.8	2.9	2.9	3.0	2.60	-			
SS (mg/L)	10.0	8.0	8.0	6.0	10.0	7.0	8.17	-			
Remarks		Dredging works was observed.									

Station			C3 (NM6)								
Time (hh:mm)			18:08	-18:09								
Water Depth (m)			6									
Monitoring Depth (m)	1	.0	3									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	18.5	18.7	18.5	18.3	18.5	18.3	18.47	-				
Salinity (ppt)	29.8	28.9	29.2	30.6	30.7	30.5	29.96	-				
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.60					
D.O. Saturation (%)	82.5	81.5	80.6	82.0	81.9	79.6	81.35	-				
D.O. (mg/L)	6.2	6.2	6.1	6.2	6.1	6.0	6.13	6.07				
Turbidity (NTU)	4.7	5.0	5.0	4.9	5.2	5.2	5.00	-				
SS (mg/L)	8.0	8.0	8.0	10.0	7.0	9.0	8.33	-				
Remarks		Dredging works was observed.										

Station			IM	01			Co-ordinate	s		
Time (hh:mm)			18:59	-19:00			Northing	Easting		
Water Depth (m)			18	3.3			22.22.087	113.55.199		
Monitoring Depth (m)	1	.0	9	.2	17	7.3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	20.9	20.9	17.9	17.8	17.9	17.9	18.88	-		
Salinity (ppt)	28.7	28.8	31.9	30.9	31.1	31.9	30.56	-		
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.61			
D.O. Saturation (%)	81.3	80.4	81.8	82.0	82.3	82.4	81.70	-		
D.O. (mg/L)	5.9	5.8	6.2	6.2	6.2	6.2	6.09	6.22		
Turbidity (NTU)	3.1	2.9	3.1	3.1	2.9	3.0	3.02	-		
SS (mg/L)	7.0	8.0	8.0	10.0	7.0	9.0	8.17	-		
Remarks		Dredging works was observed.								

Station			IM	02			Co-ordinate	s		
Time (hh:mm)			19:10	-19:11			Northing	Easting		
Water Depth (m)			18	3.2		22.21.852	113.55.730			
Monitoring Depth (m)	1	.0	9	7.2						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	19.4	19.5	18.0	17.9	17.8	17.6	18.37	-		
Salinity (ppt)	29.9	29.6	31.5	31.6	32.1	32.1	31.11	-		
pH	7.6	7.7	7.7	7.6	7.7	7.6	7.65			
D.O. Saturation (%)	83.6	84.3	82.8	82.6	84.4	84.4	83.68	-		
D.O. (mg/L)	6.2	6.2	6.2	6.2	6.4	6.4	6.28	6.38		
Turbidity (NTU)	2.3	2.3	3.2	3.3	3.1	3.1	2.88	-		
SS (mg/L)	7.0	9.0	7.0	9.0	8.0	9.0	8.17	-		
Remarks		Dredging works was observed.								

Station			MF	PB1					
Time (hh:mm)			18:36	-18:37					
Water Depth (m)			8						
Monitoring Depth (m)	1	.0	4						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	18.7	18.6	18.2	18.2	18.5	18.3	18.41	-	
Salinity (ppt)	28.3	28.5	29.3	29.4	30.7	31.1	29.54	-	
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.57		
D.O. Saturation (%)	81.5	81.5	81.7	82.1	82.4	82.5	81.95	-	
D.O. (mg/L)	6.2	6.2	6.2	6.2	6.2	6.2	6.19	6.19	
Turbidity (NTU)	7.9	8.3	8.1	7.9	8.0	8.0	8.03	-	
SS (mg/L)	7.0	9.0	6.0	7.0	6.0	6.0	6.83	-	
Remarks	Dredging works was observed.								

Station			MF	PB2						
Time (hh:mm)			18:24	-18:25						
Water Depth (m)			9							
Monitoring Depth (m)	1	.0	4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.6	18.6	18.1	18.2	18.3	18.4	18.36	-		
Salinity (ppt)	28.9	28.4	30.1	29.6	31.1	31.1	29.85	-		
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.58			
D.O. Saturation (%)	81.7	81.5	82.8	82.1	82.6	82.6	82.22	-		
D.O. (mg/L)	6.2	6.2	6.3	6.2	6.2	6.2	6.21	6.20		
Turbidity (NTU)	6.5	6.6	7.0	6.9	6.9	6.9	6.80	-		
SS (mg/L)	8.0	7.0	11.0	9.0	8.0	7.0	8.33	-		
Remarks		Dredging works was observed.								

Station			IV	IP							
Time (hh:mm)			18:46	-18:46							
Water Depth (m)			5								
Monitoring Depth (m)	1.	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.6	18.7	-	-	18.6	18.8	18.68	-			
Salinity (ppt)	28.0	27.9	-	-	29.0	29.0	28.47	-			
pH	7.6	7.6	-	-	7.6	7.6	7.62				
D.O. Saturation (%)	79.8	77.3	-	-	76.4	79.1	78.15	-			
D.O. (mg/L)	6.1	5.9	-	-	5.8	6.0	5.91	5.86			
Turbidity (NTU)	6.2	6.2	-	-	6.1	6.1	6.15	-			
SS (mg/L)	7.0	9.0	-	-	7.0	9.0	8.00	-			
Remarks		Dredging works was observed.									

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2	IMO2		MPB1	MF	/IPB2		/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	4.9	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	10.7	10.7	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	1/13/2009
Weather & Ambient Temperature	Sunny, 20C

Station			C2 (NM5)			1	
Time (hh:mm)			- 1	-15:56				
Water Depth (m)			19	9.3			1	
Monitoring Depth (m)	1	.0	9	.7	18	3.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.2	22.4	21.3	21.4	20.5	20.5	21.38	-
Salinity (ppt)	26.1	25.9	29.0	29.0	31.4	31.5	28.79	-
pH	7.7	7.7	7.7	7.7	7.6	7.7	7.67	
D.O. Saturation (%)	87.5	86.6	74.7	75.4	71.7	72.2	78.02	-
D.O. (mg/L)	5.8	5.8	4.9	5.0	4.7	4.8	5.16	4.74
Turbidity (NTU)	5.3	5.5	6.0	6.2	8.9	8.8	6.78	-
SS (mg/L)	15.0	12.0	16.0	14.0	14.0	17.0	14.67	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	01			Co-ore	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			14	4.8			22.22.089	113.55.317
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	22.2	22.3	21.5	21.5	20.8	20.8	21.52	-
Salinity (ppt)	23.7	23.6	28.1	28.0	30.1	30.1	27.28	-
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.68	
D.O. Saturation (%)	84.8	86.2	74.7	74.0	71.7	72.9	77.38	-
D.O. (mg/L)	5.7	5.8	5.0	4.9	4.7	4.82	5.15	4.78
Turbidity (NTU)	6.3	6.3	7.7	7.6	9.1	9.2	7.70	-
SS (mg/L)	14.0	14.0	14.0	16.0	14.0	13.0	14.17	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	02			Co-ord	dinates			
Time (hh:mm)				Northing	Easting						
Water Depth (m)			11	1.1			22.21.929	113.55.724			
Monitoring Depth (m)	1	.0	5	.6	10	0.1					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	22.3	22.3	21.6	21.7	20.9	20.9	21.63	-			
Salinity (ppt)	24.3	24.6	28.0	27.7	30.5	30.3	27.54	-			
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.71				
D.O. Saturation (%)	71.1	86.9	76.8	77.4	73.5	73.1	76.47	-			
D.O. (mg/L)	5.9	5.8	5.1	5.1	4.8	4.83	5.27	4.84			
Turbidity (NTU)	6.3	6.2	7.3	7.4	8.7	8.5	7.40	-			
SS (mg/L)	16.0	15.0	15.0	14.0	16.0	14.0	15.00	-			
Remarks		No dredging works was observed.									

Station			MF	PB1			1				
Time (hh:mm)			15:28	-15:29							
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 (°C)	22.7	22.8	21.6	21.6	21.4	21.5	21.95	-			
Salinity (ppt)	19.6	19.7	26.4	26.3	27.9	27.5	24.55	-			
pH	7.7	7.7	7.6	7.6	7.6	7.6	7.64				
D.O. Saturation (%)	86.9	88.9	75.4	75.5	77.3	77.8	80.30	-			
D.O. (mg/L)	5.9	6.1	5.0	5.0	5.1	5.2	5.39	5.16			
Turbidity (NTU)	5.7	5.7	6.8	6.7	7.3	7.4	6.60	-			
SS (mg/L)	15.0	14.0	16.0	14.0	17.0	15.0	15.17	-			
Remarks		No dredging works was observed.									

Station			MF	PB2					
Time (hh:mm)									
Water Depth (m)			9	.3					
Monitoring Depth (m)	1	.0	4	.7	8	.3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	22.9	22.9	22.2	22.4	21.7	21.9	22.33	-	
Salinity (ppt)	19.1	19.3	24.0	23.1	27.2	25.2	22.97	-	
pH	7.7	7.7	7.7	7.7	7.6	7.7	7.69		
D.O. Saturation (%)	94.5	94.8	82.1	80.0	79.7	77.9	84.83	-	
D.O. (mg/L)	6.5	6.5	5.5	5.4	5.3	5.2	5.72	5.25	
Turbidity (NTU)	6.2	6.2	8.4	8.3	8.9	8.9	7.82	-	
SS (mg/L)	17.0	16.0	14.0	16.0	14.0	16.0	15.50	-	
Remarks	No dredging works was observed.								

Station			N	IP						
Time (hh:mm)			15:37	-15:38						
Water Depth (m)										
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	22.3	22.4	-	-	21.6	21.6	21.98	-		
Salinity (ppt)	21.6	21.4	-	-	26.5	26.7	24.06	-		
pH	7.6	7.6	-	-	7.5	7.5	7.53			
D.O. Saturation (%)	84.2	85.6	-	-	75.5	78.2	80.88	-		
D.O. (mg/L)	5.7	5.8	-	-	5.0	5.2	5.44	5.12		
Turbidity (NTU)	7.4	7.3	-	-	8.5	8.5	7.93	-		
SS (mg/L)	13.0	13.0 12.0 14.0 11.0								
Remarks		No dredging works was observed.								

Compliance with Action an	IG LIIIIIL LEV	CI												
Parameter	As in	EM&A	C2*1	C2*130% IMC		IMO1 IMO2			MPB1	MPB2		MP		
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	4.7	4.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	5.2	5.2	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.8	NA	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	1/13/2009
Weather & Ambient Temperature	Fine, 21C

Station			C1 (NM3)						
Time (hh:mm)			19:05	-19:08						
Water Depth (m)			10							
Monitoring Depth (m)	1	.0	8	3.2	15	5.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	22.5	22.5	21.8	21.6	20.9	20.9	21.69	-		
Salinity (ppt)	26.4	26.3	28.6	29.3	31.1	31.1	28.77	-		
pH	7.6	7.7	7.7	7.7	7.6	7.7	7.64			
D.O. Saturation (%)	88.2	87.5	76.9	76.2	75.0	74.4	79.70	-		
D.O. (mg/L)	5.9	5.8	5.1	5.0	5.0	4.9	5.28	4.94		
Turbidity (NTU)	5.7	5.7	7.0	6.9	9.6	9.4	7.38	-		
SS (mg/L)	12.0	11.0	14.0	12.0	12.00	-				
Remarks		No dredging works was observed.								

Station			C3 (NM6)						
Time (hh:mm)			17:58	-17:59						
Water Depth (m)			7							
Monitoring Depth (m)	1	.0	3							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	23.1	23.0	22.7	22.6	21.8	22.3	22.58	-		
Salinity (ppt)	20.3	20.2	23.2	23.6	28.2	26.7	23.68	-		
pH	7.6	7.6	7.7	7.6	7.6	7.6	7.62			
D.O. Saturation (%)	97.5	96.9	86.4	86.8	81.5	84.3	88.90	-		
D.O. (mg/L)	6.6	6.6	5.8	5.8	5.4	5.6	5.98	5.50		
Turbidity (NTU)	5.7	5.6	6.5	6.5	7.9	7.9	6.68	-		
SS (mg/L)	14.0	11.0	14.0	12.67	-					
Remarks		No dredging works was observed.								

Station			IM	01			Co-ordinate	s		
Time (hh:mm)			18:23	-18:24			Northing	Easting		
Water Depth (m)			14	1.4		22.22.081	113.55.316			
Monitoring Depth (m)	1	.0	7							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	22.6	22.7	21.8	21.9	21.2	21.1	21.87	-		
Salinity (ppt)	23.5	23.8	28.0	27.8	30.0	30.1	27.22	-		
pH	7.7	7.7	7.7	7.7	7.6	7.7	7.65			
D.O. Saturation (%)	85.8	85.7	75.4	75.6	74.7	73.4	78.43	-		
D.O. (mg/L)	5.8	5.8	5.0	5.0	5.0	4.9	5.22	4.90		
Turbidity (NTU)	6.3	6.4	7.4	7.3	8.3	8.2	7.32	-		
SS (mg/L)	13.0	15.0	14.0	13.0	16.0	13.0	14.00	-		
Remarks		No dredging works was observed.								

Station			IM	02			Co-ordinate	s	
Time (hh:mm)			18:12	-18:14			Northing	Easting	
Water Depth (m)			10	0.5		22.21.833	113.55.731		
Monitoring Depth (m)	1	.0	5						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	22.6	22.6	21.9	22.0	21.2	21.2	21.93	-	
Salinity (ppt)	24.2	24.0	27.5	27.3	30.2	30.4	27.28	-	
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.67		
D.O. Saturation (%)	87.0	87.8	75.9	76.0	72.3	72.5	78.58	-	
D.O. (mg/L)	5.8	5.9	5.0	5.1	4.8	4.8	5.23	4.78	
Turbidity (NTU)	6.3	6.3	7.3	7.2	8.8	9.0	7.48	-	
SS (mg/L)	15.0	13.0	16.0	12.0	13.67	-			
Remarks		No dredging works was observed.							

Station			MF	PB1					
Time (hh:mm)			18:42	-18:44					
Water Depth (m)			8						
Monitoring Depth (m)	1	.0	4						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	22.9	23.0	22.0	21.9	21.7	21.7	22.20	-	
Salinity (ppt)	19.5	19.4	26.5	26.2	28.3	28.5	24.72	-	
pH	7.7	7.7	7.6	7.6	7.6	7.6	7.62		
D.O. Saturation (%)	88.3	86.9	75.3	76.2	78.1	77.3	80.35	-	
D.O. (mg/L)	6.0	5.9	5.0	5.1	5.2	5.1	5.39	5.15	
Turbidity (NTU)	6.2	6.2	7.12	-					
SS (mg/L)	13.0	14.0	15.0	14.00	-				
Remarks		No dredging works was observed.							

Station			MF	PB2					
Time (hh:mm)			18:52	-18:53					
Water Depth (m)			8						
Monitoring Depth (m)	1	.0	4						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	23.1	23.2	22.7	22.5	21.9	21.9	22.55	-	
Salinity (ppt)	18.9	18.7	23.1	24.2	27.3	27.5	23.26	-	
pH	7.7	7.7	7.7	7.7	7.6	7.6	7.68		
D.O. Saturation (%)	91.7	92.0	83.2	82.5	78.8	78.9	84.52	-	
D.O. (mg/L)	6.3	6.3	5.6	5.5	5.2	5.2	5.69	5.23	
Turbidity (NTU)	6.3	6.3	7.57	-					
SS (mg/L)	16.0	14.0	14.17	-					
Remarks		No dredging works was observed.							

Station			IV	IP						
Time (hh:mm)			18:33	-18:35						
Water Depth (m)			5							
Monitoring Depth (m)	1.	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	22.5	22.6	-	-	21.9	21.9	22.22	-		
Salinity (ppt)	21.7	21.5	-	-	26.9	26.8	24.24	-		
pH	7.5	7.6	-	-	7.5	7.5	7.54			
D.O. Saturation (%)	82.8	82.8	-	-	75.3	76.8	79.43	-		
D.O. (mg/L)	5.6	5.6	-	-	5.0	5.1	5.34	5.06		
Turbidity (NTU)	7.1	7.0	7.83	-						
SS (mg/L)	10.0	10.0 12.0 - 10.0 10.0 10.50 -								
Remarks	No dredging works was observed.									

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		IO1	IMO2		MPB1		MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	5.6	5.6	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	9.1	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	16.0	16.0	N	N	N	N	N	N	N	N	N	N

Sampling Date	1/14/2009
Weather & Ambient Temperature	Fine, 18C

Station			C2 (NM5)			1	
Time (hh:mm)			<u> </u>	-15:14			1	
Water Depth (m)			1					
Monitoring Depth (m)	1	.0	10).1	19	9.2		
Trial	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	19.1	19.0	18.4	18.5	18.1	18.3	18.58	-
Salinity (ppt)	34.2	34.3	35.1	35.0	35.8	35.6	34.99	-
pH	7.8	7.8	7.8	7.8	7.8	7.9	7.83	
D.O. Saturation (%)	91.1	90.7	89.7	90.1	89.4	87.2	89.70	-
D.O. (mg/L)	8.1	8.1	8.1	8.0	8.0	7.9	8.02	7.95
Turbidity (NTU)	7.7	7.7	7.0	7.2	7.2	7.3	7.35	-
SS (mg/L)	6.0	6.0	6.83	-				
Remarks			D	redging wor	ks was obse	rved.		

1-								
Station			IM	01			Co-ore	dinates
Time (hh:mm)			15:25	-15:26			Northing	Easting
Water Depth (m)			22.22.089	113.55.327				
Monitoring Depth (m)	1	.0		3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.5	19.1	18.6	18.6	18.3	18.4	18.73	-
Salinity (ppt)	33.9	34.3	35.1	35.2	35.6	35.7	34.96	-
pH	7.8	7.8	7.8	7.8	7.8	7.8	7.82	
D.O. Saturation (%)	100.5	102.3	102.7	100.7	103.8	100.9	101.82	-
D.O. (mg/L)	8.0	8.2	8.2	8.1	8.3	8.10	8.15	8.22
Turbidity (NTU)	6.6	6.2	6.8	7.0	6.9	6.7	6.70	-
SS (mg/L)	7.0 6.0 6.0 6.0 7.0							-
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	02			Co-ore	dinates
Time (hh:mm)			15:34	-15:36			Northing	Easting
Water Depth (m)			22.21.865	113.55.700				
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	19.0	19.1	18.6	18.7	18.3	18.3	18.66	-
Salinity (ppt)	34.6	34.6	35.2	35.1	35.8	35.8	35.17	-
pH	7.8	7.8	7.8	7.8	7.9	7.9	7.84	
D.O. Saturation (%)	98.6	97.0	95.9	97.4	96.9	98.1	97.32	-
D.O. (mg/L)	7.9	7.7	7.7	7.8	7.8	7.89	7.80	7.84
Turbidity (NTU)	7.8	7.4	6.7	7.3	7.1	7.7	7.33	-
SS (mg/L)	7.0	6.0	6.33	-				
Remarks		-	С	redging wor	ks was obse	rved.		-

Station			MF	PB1			1				
Time (hh:mm)			14:54	-14:56							
Water Depth (m)											
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 (°C)	19.5	19.6	19.0	19.1	18.5	18.4	19.01	-			
Salinity (ppt)	33.9	33.7	34.7	34.6	35.9	36.0	34.79	-			
pH	7.8	7.8	7.8	7.8	7.8	7.9	7.80				
D.O. Saturation (%)	79.5	88.6	98.1	84.3	91.7	91.4	88.93	-			
D.O. (mg/L)	7.2	8.0	8.8	7.7	8.2	8.2	8.00	8.21			
Turbidity (NTU)	7.8	7.5	8.6	8.4	7.7	8.0	8.00	-			
SS (mg/L)	5.0	6.0	6.0	5.83	ı						
Remarks		Dredging works was observed.									

Station			MI	PB2						
Time (hh:mm)			15:45	-15:46						
Water Depth (m)	Depth (m) 9.1									
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	19.6	19.6	18.9	18.8	18.7	18.7	19.06	-		
Salinity (ppt)	34.0	34.0	34.9	34.9	35.4	35.3	34.74	-		
pH	7.7	7.7	7.8	7.8	7.8	7.8	7.77			
D.O. Saturation (%)	79.9	82.4	95.0	91.7	90.1	92.0	88.52	-		
D.O. (mg/L)	7.3	7.5	8.6	8.3	8.1	8.3	8.02	8.22		
Turbidity (NTU)	6.5	6.5	8.4	8.3	8.1	8.8	7.77	-		
SS (mg/L)	5.0	6.0	5.0	6.0	6.0	6.0	5.67	-		
Remarks	Dredging works was observed.									

Station		•	I.	/IP	•		1			
Time (hh:mm)			15:03	3-15:04						
Water Depth (m)										
Monitoring Depth (m)	1	.0	2.9			.7				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1		Depth- averaged	Bottom		
Water Temperature (°C)	19.9	19.1	-	-	18.4	18.4	18.94	-		
Salinity (ppt)	33.7	34.3	-	-	35.2	35.3	34.62	-		
pH	7.8	7.8	-	-	7.8	7.8	7.81			
D.O. Saturation (%)	96.5	97.3	-	-	84.6	88.3	91.68	-		
D.O. (mg/L)	8.6	8.7	-	-	7.7	8.0	8.25	7.82		
Turbidity (NTU)	7.3	7.4	-	-	7.6	7.8	7.53	-		
SS (mg/L)	9.0	8.0	-	-	6.0	6.0	7.25	-		
Remarks		Dredging works was observed.								

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	02		MPB1	MF	MPB2		/IP
	Action	Limit	Action	Limit	Exceedan Exceedanc Exceedanc Ex		Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan		
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.9	7.9	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	8.0	8.0	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	9.6	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	8.9	8.9	N	N	N	N	N	N	N	N	N	N

Sampling Date	1/14/2009
Weather & Ambient Temperature	Sunny, 18C

Station			C1 (NM3)							
Time (hh:mm)			9:35	-9:41							
Water Depth (m)											
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.7	18.6	18.5	18.5	18.4	18.5	18.52	-			
Salinity (ppt)	35.1	32.6	35.2	35.3	32.6	35.3	34.35	-			
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.85				
D.O. Saturation (%)	92.3	89.3	91.1	89.0	93.9	92.3	91.32	-			
D.O. (mg/L)	8.2	7.9	8.1	8.0	8.4	8.3	8.14	8.32			
Turbidity (NTU)	7.9	7.8	7.8	7.9	7.3	8.1	7.80	-			
SS (mg/L)	6.0	6.0	6.0	6.0	5.0	5.0	5.67	-			
Remarks		Dredging works was observed.									

Station			C3 (NM6)							
Time (hh:mm)			10:45	-10:48							
Water Depth (m)			6								
Monitoring Depth (m)	1	.0	3								
Trial	Trial 1	Trial 2	Trial 1	Depth-averaged	Bottom						
Water Temperature (°C)	19.4	19.1	18.9	19.0	18.5	18.4	18.88	-			
Salinity (ppt)	33.6	34.1	35.2	34.9	35.8	36.0	34.93	-			
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.91				
D.O. Saturation (%)	85.1	90.8	90.1	95.2	85.3	90.7	89.53	-			
D.O. (mg/L)	7.8	8.2	8.2	8.6	7.8	8.2	8.11	7.99			
Turbidity (NTU)	7.1	6.8	7.8	7.4	9.3	8.9	7.88	-			
SS (mg/L)	6.0	5.0	7.0	8.0	6.67	-					
Remarks		Dredging works was observed.									

Station			IM	01			Co-ordinate	s			
Time (hh:mm)			9:55	-9:57			Northing	Easting			
Water Depth (m)			17	7.8			22.22.086	113.55.310			
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	18.9	19.0	18.6	18.7	18.6	18.6	18.73	-			
Salinity (ppt)	34.7	34.6	35.0	35.0	35.1	35.1	34.89	-			
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88				
D.O. Saturation (%)	88.4	85.6	91.1	85.6	90.4	87.1	88.03	-			
D.O. (mg/L)	8.1	7.8	8.2	7.7	8.1	7.9	7.97	7.99			
Turbidity (NTU)	6.9	6.8	9.6	9.8	10.0	10.3	8.90	-			
SS (mg/L)	5.0	4.0	5.0	4.0	4.50	-					
Remarks		Dredging works was observed.									

Station			IM	02			Co-ordinate:	3	
Time (hh:mm)			9:49	-9:50			Northing	Easting	
Water Depth (m)			18	3.1			22.21.895	113.55.704	
Monitoring Depth (m)	1	.0	9						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	19.1	19.1	18.7	18.6	18.5	18.6	18.76	-	
Salinity (ppt)	34.5	34.5	34.9	35.0	35.2	35.0	34.84	-	
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.86		
D.O. Saturation (%)	91.2	92.9	87.1	88.5	89.8	87.2	89.45	-	
D.O. (mg/L)	8.1	8.2	7.9	8.1	8.1	7.9	8.02	7.96	
Turbidity (NTU)	6.5	6.7	9.0	8.4	9.6	9.4	8.27	-	
SS (mg/L)	5.0	4.0	6.0	4.0	4.83	-			
Remarks	Dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			10:14	-10:16						
Water Depth (m)			8							
Monitoring Depth (m)	1	.0	4	.3						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	18.9	18.9	18.8	18.7	18.8	18.8	18.83	-		
Salinity (ppt)	34.0	34.0	34.4	34.9	34.4	34.4	34.36	-		
pH	7.8	7.8	7.8	7.9	7.8	7.8	7.84			
D.O. Saturation (%)	86.0	89.2	94.6	88.3	99.4	87.7	90.87	-		
D.O. (mg/L)	7.7	8.0	8.5	8.0	8.9	7.9	8.16	8.40		
Turbidity (NTU)	8.7	8.7	10.0	10.1	10.2	10.4	9.68	-		
SS (mg/L)	5.0	4.0	8.0	9.0	6.0	6.0	6.33	-		
Remarks		Dredging works was observed.								

Station			MF	PB2							
Time (hh:mm)			10:23	-10:24							
Water Depth (m)			8								
Monitoring Depth (m)	1	.0	4	.7							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.4	19.8	19.0	19.2	18.8	18.7	19.15	-			
Salinity (ppt)	33.5	33.4	34.0	33.7	34.7	34.7	34.01	-			
pH	7.8	7.8	7.9	7.8	7.9	7.9	7.84				
D.O. Saturation (%)	92.4	78.4	83.7	83.8	96.6	88.1	87.17	-			
D.O. (mg/L)	8.3	7.2	7.6	7.6	8.7	8.0	7.90	8.33			
Turbidity (NTU)	7.6	7.5	7.5	6.6	8.5	9.0	7.78	-			
SS (mg/L)	4.0	6.0	6.0	6.0	5.0	5.0	5.33	-			
Remarks		Dredging works was observed.									

Station			IV	IP							
Time (hh:mm)			10:04	-10:05							
Water Depth (m)			5	.7							
Monitoring Depth (m)	1.	.0	2	.7							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	19.1	19.3	-	-	19.0	19.0	19.08	-			
Salinity (ppt)	34.6	34.5	-	-	34.6	34.6	34.60	-			
pH	7.9	7.9	-	-	7.9	7.9	7.86				
D.O. Saturation (%)	91.5	90.6	-	-	84.0	96.7	90.70	-			
D.O. (mg/L)	8.3	8.2	-	-	7.6	8.6	8.15	8.11			
Turbidity (NTU)	7.2	7.3	-	-	7.2	7.4	7.28	-			
SS (mg/L)	6.0	6.0	-	-	5.0	5.0	5.50	-			
Remarks		Dredging works was observed.									

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2	IMO2		MPB1		MPB2		/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.2	8.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	8.1	8.1	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.2	NA	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	8.0	8.0	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	01/15/09
Weather & Ambient Temperature	Sunny, 15C

Station			C2 (NM5)			1	
Time (hh:mm)			15:31	-15:33				
Water Depth (m)			20	0.8				
Monitoring Depth (m)	1	.0	10	0.4	19	9.8		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	16.2	16.3	16.2	16.2	16.2	16.2	16.19	ı
Salinity (ppt)	39.7	39.6	39.6	39.7	39.6	39.6	39.63	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.21	
D.O. Saturation (%)	92.4	92.5	91.9	92.0	92.3	92.5	92.27	-
D.O. (mg/L)	7.1	7.1	7.1	7.1	7.1	7.2	7.13	7.14
Turbidity (NTU)	11.1	10.8	12.0	12.3	15.8	16.2	13.03	-
SS (mg/L)	16.0	16.0	12.0	13.0	12.0	12.0	13.50	1
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	01			Co-ord	dinates
Time (hh:mm)			16:41	-16:42			Northing	Easting
Water Depth (m)				22.21.884	113.55.673			
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	16.4	16.4	16.4	16.4	16.3	16.3	16.37	-
Salinity (ppt)	39.7	39.7	39.6	39.7	39.7	39.7	39.65	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	84.8	84.2	83.8	84.1	84.4	84.8	84.35	-
D.O. (mg/L)	6.5	6.5	6.5	6.5	6.5	6.53	6.50	6.52
Turbidity (NTU)	16.8	17.0	17.3	17.3	20.1	20.4	18.15	-
SS (mg/L)	16.0	15.0	14.0	15.0	18.0	17.0	15.83	-
Remarks		•	D	redging wor	ks was obse	rved.	-	

Station			IM	02			Co-ore	dinates		
Time (hh:mm)			16:31	-16:33			Northing	Easting		
Water Depth (m)				22.22.061	113.54.303					
Monitoring Depth (m)	1	.0	3.5							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	16.4	16.4	16.3	16.3	16.3	16.4	16.36	-		
Salinity (ppt)	39.7	39.7	39.7	39.7	39.7	39.7	39.68	-		
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20			
D.O. Saturation (%)	84.2	83.3	83.0	83.7	84.4	83.1	83.62	-		
D.O. (mg/L)	6.5	6.4	6.4	6.5	6.5	6.40	6.44	6.45		
Turbidity (NTU)	15.4	15.2	15.7	16.0	16.8	16.3	15.90	-		
SS (mg/L)	17.0	16.0	15.0	16.0	17.0	16.0	16.17	-		
Remarks	Dredging works was observed.									

Station			MF	PB1				
Time (hh:mm)			14:51	-14:52				
Water Depth (m)								
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.21	-
Salinity (ppt)	39.4	39.4	39.6	39.6	39.6	39.6	39.53	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.21	
D.O. Saturation (%)	93.7	94.2	93.6	93.6	94.1	94.0	93.87	-
D.O. (mg/L)	7.2	7.3	7.2	7.2	7.3	7.3	7.26	7.27
Turbidity (NTU)	12.9	13.2	14.9	14.8	15.1	15.1	14.33	-
SS (mg/L)	14.0	14.0	13.0	14.0	13.0	12.0	13.33	-
Remarks			D	redging wor	ks was obse	rved.		

Station			M	PB2				
Time (hh:mm)			14:44	-14:45				
Water Depth (m)			8	3.4				
Monitoring Depth (m)	1	.0	4	.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.21	-
Salinity (ppt)	39.4	39.7	39.6	39.6	39.5	39.5	39.54	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.23	
D.O. Saturation (%)	95.1	94.4	95.5	94.1	96.6	94.7	95.07	-
D.O. (mg/L)	7.4	7.3	7.4	7.3	7.5	7.3	7.35	7.40
Turbidity (NTU)	14.5	14.4	16.0	16.4	17.9	18.0	16.20	-
SS (mg/L)	16.0	15.0	15.0	15.0	15.0	14.0	15.00	-
Remarks		•	Γ	redaina wor	ks was obse	rved	•	

Station			IV	IP						
Time (hh:mm)			15:01	-15:02						
Water Depth (m)										
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	16.3	16.3	-	-	16.2	16.2	16.23	-		
Salinity (ppt)	39.6	39.5	-	-	39.6	39.6	39.61	-		
pH	8.2	8.2	-	-	8.2	8.2	8.21			
D.O. Saturation (%)	93.3	93.6	-	-	93.5	93.1	93.38	-		
D.O. (mg/L)	7.2	7.2	-	-	7.2	7.2	7.21	7.21		
Turbidity (NTU)	12.4	12.5	-	-	13.5	13.1	12.88	-		
SS (mg/L)	13.0	15.0	-	-	12.0	14.0	13.50	-		
Remarks	Dredging works was observed.									

Somphanee with Action and Elinit Level														
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.1	7.1	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.1	7.1	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	16.9	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	17.6	17.6	N	N	N	Z	N	N	Ν	N	Z	N

Station			C1 (NM3)				
Time (hh:mm)			10:24					
Water Depth (m)			17					
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.4	16.4	16.4	16.3	16.3	16.3	16.34	-
Salinity (ppt)	38.8	38.5	38.6	38.7	38.6	38.6	38.63	-
pH	8.2	8.2	8.2	8.2	8.2	8.1	8.15	
D.O. Saturation (%)	80.5	78.1	78.9	82.0	79.4	82.1	80.17	-
D.O. (mg/L)	6.2	6.1	6.1	6.4	6.2	6.4	6.22	6.27
Turbidity (NTU)	13.5	13.7	16.0	15.6	19.6	19.9	16.38	-
SS (mg/L)	11.0	12.0	10.0	11.0	10.0	11.0	10.83	-
Remarks								

Station			C3 (NM6)				
Time (hh:mm)			12:03	-12:04				
Water Depth (m)			8					
Monitoring Depth (m)	1	.0	4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.25	-
Salinity (ppt)	39.8	39.7	39.7	39.3	39.5	39.6	39.59	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	92.2	92.2	92.2	92.3	78.3	92.3	89.92	-
D.O. (mg/L)	7.1	7.1	7.1	7.1	6.1	7.1	6.94	6.59
Turbidity (NTU)	14.1	14.3	15.2	15.4	14.5	14.8	14.72	-
SS (mg/L)	11.0	10.0	12.0	13.0	16.0	17.0	13.17	-
Remarks		•						

Station			IM	I O 1			Co-ordinate	s			
Time (hh:mm)			10:35	-10:37			Northing	Easting			
Water Depth (m)			1;		22.21.880	113.55.677					
Monitoring Depth (m)	1	.0	6								
Trial	Trial 1	Trial 2	Trial 1	Depth-averaged	Bottom						
Water Temperature (°C)	16.4	16.4	16.4	16.4	16.3	16.3	16.36	-			
Salinity (ppt)	38.5	8.5 38.5 38.6 38.4 38.6 38.4		38.5	38.51	-					
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16				
D.O. Saturation (%)	81.1	80.0	79.3	79.2	79.4	80.3	79.88	-			
D.O. (mg/L)	6.3	6.2	6.2	6.2	6.2	6.2	6.20	6.19			
Turbidity (NTU)	12.2	11.9	15.4	15.8	16.8	17.0	14.85	-			
SS (mg/L)	14.0	13.0	14.0	12.0	13.00	-					
Remarks		14.0 13.0 14.0 13.0 12.0 12.0 13.00 - Dredging works was observed.									

Station			IIV	102			Co-ordinate	es	
Time (hh:mm)			10:46	-10:48			Northing	Easting	
Water Depth (m)			1-		22.22.068	113.55.303			
Monitoring Depth (m)	1	.0	7						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.4	16.4	16.3	16.3	16.3	16.3	16.35	-	
Salinity (ppt)	38.5	38.6	38.6	38.5	38.5	38.6	38.54	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16		
D.O. Saturation (%)	83.6	83.1	82.9	83.7	83.1	83.8	83.37	-	
D.O. (mg/L)	6.5	6.4	6.4	6.5	6.4	6.5	6.47	6.47	
Turbidity (NTU)	16.1	16.3	17.2	16.9	18.7	18.4	17.27	-	
SS (mg/L)	13.0	12.0	10.0	11.0	10.0	10.0	11.00	-	
Remarks		Dredging works was observed.							

Station			MP	B1				
Time (hh:mm)			11:33	-11:34				
Water Depth (m)			8	.3				
Monitoring Depth (m)	1	.0	4	.2	7	.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.24	-
Salinity (ppt)	39.9	39.9	39.8	39.8	39.8	39.8	39.83	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	92.0	84.9	91.8	91.4	91.7	92.0	90.63	-
D.O. (mg/L)	7.1	6.5	7.1	7.1	7.1	7.1	6.99	7.09

16.1

18.0

15.0

13.0

Dredging works was observed.

14.7

14.0

14.77

14.67

Mid-Flood

Turbidity (NTU)

SS (mg/L)

Remarks

13.5

13.0

13.2

13.0

16.1

17.0

Station			MF	PB2				
Time (hh:mm)			11:40	-11:41				
Water Depth (m)			8					
Monitoring Depth (m)	1	.0	4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.25	-
Salinity (ppt)	39.9	39.8	39.8	39.9	39.8	39.8	39.82	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	91.9	92.6	92.1	91.6	82.5	91.6	90.38	-
D.O. (mg/L)	7.1	7.1	7.1	7.1	6.4	7.1	6.97	6.72
Turbidity (NTU)	12.2	12.1	12.7	13.1	15.8	16.0	13.65	-
SS (mg/L)	17.0	17.0	13.0	12.0	12.0	13.0	14.00	-
Remarks								

Station			N	IP						
Time (hh:mm)			11:24							
Water Depth (m)			5							
Monitoring Depth (m)	1	.0	2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	16.3	16.3	-	-	16.3	16.3	16.28	-		
Salinity (ppt)	39.8	39.9	-	-	39.8	39.8	39.84	-		
pH	8.2	8.2	-	-	8.2	8.2	8.20			
D.O. Saturation (%)	92.0	91.9	-	-	84.4	91.7	90.00	-		
D.O. (mg/L)	7.1	7.1	-	-	6.5	7.1	6.93	6.79		
Turbidity (NTU)	14.9	14.9	-	-	15.1	14.9	14.95	-		
SS (mg/L)	12.0	12.0	-	-	14.0	14.0	13.00	-		
Remarks		Dredging works was observed.								

Compliance with	th Action	and Limit	Lovol
Compliance wi	tn Action	and Limit	Level

Compliance with Action an	a Lillil Lev	ei												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	101	IMO2			MPB1	MPB2		M	(P
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedance	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	6.6	6.6	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	20.2	NA	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	15.6	15.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	01/16/09
Weather & Ambient Temperature	Sunny, 15C

Station	I		C2 (NM5)			1					
***************************************			- 1	-16:17								
Time (hh:mm)												
Water Depth (m)			19	9.9								
Monitoring Depth (m)	1	.0	10	0.0	18	3.9						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom				
							averaged					
Water Temperature (°C)	16.4	16.4	16.2	16.2	16.2	16.2	16.30	-				
Salinity (ppt)	38.7	38.3	38.3	38.2	38.0	38.6	38.34	-				
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.21					
D.O. Saturation (%)	92.8	93.3	92.3	92.7	92.4	92.8	92.72	-				
D.O. (mg/L)	7.2	7.2	7.2	7.2	7.2	7.2	7.21	7.21				
Turbidity (NTU)	14.6	14.3	19.20	-								
SS (mg/L)	9.0	9.0 10.0 12.0 12.0 11.0 11.0 10										
Remarks			D	redging wor	ks was obse	rved.	•					

Station			IM	01			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)				22.21.524	113.55.894			
Monitoring Depth (m)	1	.0	7	.0	12	2.9		3
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
			averaged					
Water Temperature (°C)	16.4	16.4	16.3	16.2	16.2	16.2	16.29	-
Salinity (ppt)	38.6	38.2	38.3	38.1	38.2	38.2	38.27	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	94.7	95.0	94.7	95.5	97.0	94.9	95.30	-
D.O. (mg/L)	7.3	7.4	7.4	7.4	7.6	7.39	7.41	7.48
Turbidity (NTU)	14.0	13.7	16.18	-				
SS (mg/L)	11.0	10.0	9.0	9.83	-			
Remarks			D	redging wor	ks was obse	rved.		

Station			IM	02			Co-ord	dinates			
Time (hh:mm)			16:58	-16:59			Northing	Easting			
Water Depth (m)				22.21.954	113.55.447						
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	16.3	16.3	16.2	16.2	16.2	16.2	16.26	-			
Salinity (ppt)	38.7	38.6	38.5	38.5	38.4	38.6	38.56	-			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20				
D.O. Saturation (%)	94.5	93.8	94.9	94.0	96.6	94.2	94.67	-			
D.O. (mg/L)	7.3	7.3	7.4	7.3	7.5	7.32	7.36	7.42			
Turbidity (NTU)	17.4 17.6 19.1 19.4 19.9 20.3							-			
SS (mg/L)	10.0	10.0 10.0 9.0 10.0 11.0 10.0 10.00 -									
Remarks		-	D	redging worl	ks was obse	rved.	-				

Station			MF	PB1			1	
Time (hh:mm)			15:38	-15:39				
Water Depth (m)								
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 (°C)	16.4	16.4	16.3	16.3	16.3	16.3	16.32	-
Salinity (ppt)	38.1	38.0	38.2	38.5	38.3	38.5	38.28	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	
D.O. Saturation (%)	91.7	92.2	92.0	91.6	92.1	92.2	91.97	-
D.O. (mg/L)	7.1	7.2	7.2	7.1	7.2	7.2	7.15	7.17
Turbidity (NTU)	11.1	11.0	12.9	12.6	12.7	12.7	12.17	-
SS (mg/L)	13.0	14.0	14.0	15.0	15.0	16.0	14.50	-
Remarks		•	D	redging wor	ks was obse	rved.		

Station			MI	PB2						
Time (hh:mm)			15:29	-15:30						
Water Depth (m)										
Monitoring Depth (m)	1	.0	4	.3	7	.6				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	16.4	16.4	16.3	16.3	16.3	16.3	16.31	-		
Salinity (ppt)	38.3	38.5	39.7	38.0	38.1	38.4	38.49			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.23			
D.O. Saturation (%)	90.8	91.3	91.3	91.1	92.7	91.4	91.43	-		
D.O. (mg/L)	7.1	7.1	7.0	7.1	7.2	7.1	7.10	7.17		
Turbidity (NTU)	14.1	14.5	17.4	17.1	20.8	20.9	17.47	-		
SS (mg/L)	14.0	13.0	16.0	16.0	15.0	16.0	15.00	-		
Remarks	Dredging works was observed.									

Station			N	IP			1			
Time (hh:mm)			15:50	-15:50						
Water Depth (m)										
Monitoring Depth (m)	1	.0	2	.7	4	.5				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	16.4	16.4	-	-	16.3	16.4	16.36	-		
Salinity (ppt)	38.3	38.6	-	-	38.4	38.7	38.48	-		
pH	8.2	8.2	-	-	8.2	8.2	8.22			
D.O. Saturation (%)	92.8	92.8	-	-	93.1	93.2	92.98	-		
D.O. (mg/L)	7.2	7.2	-	-	7.2	7.2	7.21	7.23		
Turbidity (NTU)	10.9	11.0	-	-	11.8	12.1	11.45	-		
SS (mg/L)	15.0	15.0	12.75	-						
Remarks		Dredging works was observed.								

Compliance with Action an	ia Limit Lev	<u>ei</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1 IMO2		02		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	8.2	8.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	92.7	92.7	N	N	N	N	N	N	Ν	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	9.4	9.4	N	N	N	Ν	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	25.0	25.0	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ	Υ

Sampling Date	01/16/09
Weather & Ambient Temperature	Sunny, 15C

Station			C1 (NM3)				
Time (hh:mm)			10:46					
Water Depth (m)			17					
Monitoring Depth (m)	1	.0	8	3.6	16	6.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.4	16.4	16.3	16.3	16.3	16.3	16.32	-
Salinity (ppt)	38.4	38.4	37.6	37.5	38.9	38.3	38.16	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	
D.O. Saturation (%)	90.1	87.9	87.5	89.7	83.9	89.5	88.10	-
D.O. (mg/L)	7.1	7.0	7.0	7.1	6.6	7.1	6.99	6.87
Turbidity (NTU)	11.9	12.2	15.1	15.6	17.8	17.3	14.98	-
SS (mg/L)	8.0	8.0	9.0	9.0	9.0	9.0	8.67	-
Remarks								

Station			C3 (NM6)							
Time (hh:mm)			12:25								
Water Depth (m)			8								
Monitoring Depth (m)	1	.0	4	.4	7	.7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.3	16.3	16.3	16.3	16.3	16.3	16.30	-			
Salinity (ppt)	38.5	38.7	38.7	38.8	38.7	38.7	38.69	-			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22				
D.O. Saturation (%)	93.5	92.7	90.1	93.3	92.5	93.4	92.58	-			
D.O. (mg/L)	7.3	7.2	7.0	7.2	7.2	7.2	7.18	7.21			
Turbidity (NTU)	16.0	15.8	16.2	16.1	17.4	17.1	16.43	-			
SS (mg/L)	11.0	10.0	12.0	9.0	10.33	-					
Remarks		Dredging works was observed.									

Station			IM	01			Co-ordinate:	S			
Time (hh:mm)			10:59	-11:01			Northing	Easting			
Water Depth (m)			14	4.2		22.21.529	113.55.895				
Monitoring Depth (m)	1	.0	7	3.2							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.3	16.4	16.3	16.3	16.3	16.3	16.32	-			
Salinity (ppt)	38.2	38.3	38.5	38.4	38.5	38.2	38.34	-			
pH	8.2	8.2	8.2	8.22							
D.O. Saturation (%)	94.9	93.1	94.0	92.3	94.1	92.2	93.43	-			
D.O. (mg/L)	7.5	7.4	7.4	7.3	7.5	7.3	7.40	7.38			
Turbidity (NTU)	9.9	9.5	12.9	13.7	12.05	-					
SS (mg/L)	19.0	18.0	17.0	17.0	19.0	18.17	-				
Remarks		Dredging works was observed.									

Station			IIV	102			Co-ordinate	s			
Time (hh:mm)			11:10	-11:11			Northing	Easting			
Water Depth (m)			1-		22.21.953	113.55.443					
Monitoring Depth (m)	1	.0	7								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.3	16.3	16.3	16.3	16.3	16.3	16.28	-			
Salinity (ppt)	38.3	38.4	38.3	38.6	38.6	38.1	38.38	-			
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22				
D.O. Saturation (%)	86.3	85.8	86.2	85.5	86.3	85.5	85.93	-			
D.O. (mg/L)	6.8	6.7	6.8	6.7	6.8	6.7	6.74	6.74			
Turbidity (NTU)	12.9 12.8 15.0 14.9 14.7 15.0						14.22	-			
SS (mg/L)	8.0	8.0	10.0	9.0	8.83	-					
Remarks		Dredging works was observed.									

Station			MF	PB1						
Time (hh:mm)			11:48	-11:49						
Water Depth (m)			8							
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 (°C)	16.3	16.3	16.3	16.3	16.3	16.3	16.30	-		
Salinity (ppt)	38.5	39.3	38.3	38.6	39.4	38.6	38.78	-		
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.23			
D.O. Saturation (%)	90.5	91.2	89.9	90.9	90.7	89.5	90.45	-		
D.O. (mg/L)	7.0	7.0	7.0	7.1	7.0	7.0	7.01	6.98		
Turbidity (NTU)	12.4	12.1	13.7	14.0	15.3	14.9	13.73	-		
SS (mg/L)	10.0	11.0	9.0	9.0	9.0	8.0	9.33	-		
Remarks		Dredging works was observed.								

Station			MF	B2							
Time (hh:mm)			12:00	-12:01							
Water Depth (m)			8								
Monitoring Depth (m)	1	.0	4	.4	7	.7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.3	16.3	16.3	16.3	16.3	16.3	16.27	-			
Salinity (ppt)	38.5	39.7	38.79	-							
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22				
D.O. Saturation (%)	91.9	91.9	92.0	91.8	91.7	92.1	91.90	-			
D.O. (mg/L)	7.1	7.1	7.1	7.1	7.1	7.2	7.13	7.14			
Turbidity (NTU)	18.9	18.7	20.1	20.1	20.0	20.2	19.67	-			
SS (mg/L)	12.0	12.0	8.0	9.0	9.83	-					
Remarks		Dredging works was observed.									

Station			IV	IP							
Time (hh:mm)			11:37	-11:38							
Water Depth (m)			5								
Monitoring Depth (m)	1.	.0	2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.3	16.3	-	-	16.3	16.3	16.31	-			
Salinity (ppt)	39.5	38.3	-	-	38.7	38.6	38.79	-			
pH	8.2	8.2	-	-	8.2	8.2	8.23				
D.O. Saturation (%)	83.5	83.9	-	-	87.2	87.3	85.48	-			
D.O. (mg/L)	6.4	6.5	-	-	6.8	6.8	6.62	6.77			
Turbidity (NTU)	15.3	15.4	-	-	16.7	16.5	15.98	-			
SS (mg/L)	10.0	10.0	-	-	8.0	8.0	9.00	-			
Remarks		Dredging works was observed.									

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2	IMO2		MPB1	MPB2		IV	/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.1	7.1	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	20.4	20.4	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	12.4	12.4	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	01/17/09
Weather & Ambient Temperature	Fine, 16C

Station			C2 (NM5)			1					
Time (hh:mm)			<u> </u>	-17:36			1					
Water Depth (m)			1									
Monitoring Depth (m)	1	.0	10).2	19	9.4	1					
Trial	Trial 1 Trial 2 Trial 1 Trial 2 Trial 1 Trial 2						Depth- averaged	Bottom				
Water Temperature (°C)	17.0	17.0	16.5	16.4	16.2	16.2	16.54	-				
Salinity (ppt)	24.3	24.3	29.5	29.6	30.7	30.6	28.15	-				
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.17					
D.O. Saturation (%)	96.9	95.8	93.0	91.7	96.4	95.7	94.92	-				
D.O. (mg/L)	7.0	6.9	6.6	6.5	6.8	6.8	6.78	6.80				
Turbidity (NTU)	11.6	11.5	13.3	13.1	15.4	14.9	13.30	-				
SS (mg/L)	9.0	9.0	10.33	-								
Remarks		Dredging works was observed.										

Station			IM	01			Co-ore	dinates		
Time (hh:mm)			17:56	-17:58			Northing	Easting		
Water Depth (m)			22.21.970	113.55.363						
Monitoring Depth (m)	1	.0		•						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	16.7	16.7	16.3	16.2	15.8	15.7	16.22	-		
Salinity (ppt)	30.2	30.1	31.6	31.6	32.1	32.2	31.31	-		
pH	8.2	8.2	8.2	8.2	8.2	8.3	8.23			
D.O. Saturation (%)	94.1	92.2	89.1	88.9	90.8	91.3	91.07	-		
D.O. (mg/L)	6.6	6.5	6.2	6.2	6.4	6.47	6.42	6.46		
Turbidity (NTU)	11.2	11.1	12.3	12.2	13.0	13.2	12.17	-		
SS (mg/L)	11.0	12.0	11.00	-						
Remarks		Dredging works was observed.								

Station			IM	02			Co-ord	dinates
Time (hh:mm)			18:17	-18:19			Northing	Easting
Water Depth (m)				22.21.719	113.55.790			
Monitoring Depth (m)	1	.0	5	.3	9	.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	16.5	16.5	15.8	15.8	15.6	15.6	15.97	-
Salinity (ppt)	30.4	30.3	31.5	31.5	32.2	32.1	31.36	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.18	
D.O. Saturation (%)	93.7	92.9	90.7	91.1	93.5	91.9	92.30	-
D.O. (mg/L)	6.6	6.6	6.4	6.5	6.6	6.54	6.54	6.58
Turbidity (NTU)	10.8	10.6	11.5	11.4	13.1	12.7	11.68	-
SS (mg/L)	10.0	10.0	9.50	-				
Remarks		-	D	redging worl	ks was obse	rved.	-	

Station			MF	PB1				
Time (hh:mm)			17:04	-17:06				
Water Depth (m)								
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 (°C)	17.1	17.1	16.8	16.7	16.6	16.5	16.79	-
Salinity (ppt)	24.4	24.3	26.5	26.6	28.0	28.1	26.29	-
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.16	
D.O. Saturation (%)	97.6	98.1	96.7	97.1	99.1	100.4	98.17	-
D.O. (mg/L)	7.1	7.1	6.9	7.0	7.1	7.2	7.04	7.12
Turbidity (NTU)	9.5	9.3	10.2	10.1	10.6	10.9	10.10	-
SS (mg/L)	11.0	12.0	10.83	-				
Remarks		-	D	redging worl	ks was obse	rved.	-	•

Station			M	PB2					
Time (hh:mm)			16:53	3-16:55					
Water Depth (m)									
Monitoring Depth (m)	1	.0	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	17.0	17.0	16.9	16.9	16.9	16.9	16.95	-	
Salinity (ppt)	24.8	24.7	25.3	25.3	25.4	25.3	25.12	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16		
D.O. Saturation (%)	98.8	97.9	99.1	99.5	100.1	99.3	99.12	-	
D.O. (mg/L)	7.1	7.1	7.1	7.1	7.2	7.1	7.12	7.16	
Turbidity (NTU)	9.9	10.0	10.4	10.6	11.2	11.0	10.52	-	
SS (mg/L)	10.0	11.0	12.0	11.0	10.0	10.0	10.67	-	
Remarks	Dredging works was observed.								

Station			N	IP			1			
Time (hh:mm)			17:14	-17:15						
Water Depth (m)										
Monitoring Depth (m)	1	.0	2	.9	4	.7				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	17.0	17.0	-	-	16.6	16.7	16.81	-		
Salinity (ppt)	26.0	26.1	-	-	27.5	27.4	26.75	-		
pH	8.2	8.2	-	-	8.2	8.2	8.18			
D.O. Saturation (%)	105.0	105.6	-	-	106.4	106.2	105.80	-		
D.O. (mg/L)	7.5	7.5	-	-	7.5	7.6	7.52	7.55		
Turbidity (NTU)	9.2	9.3	-	-	9.9	10.1	9.63	-		
SS (mg/L)	8.0	9.0	10.0	9.00	-					
Remarks		Dredging works was observed.								

Compliance with Action at	Somphance with Action and Limit Level													
Parameter	As in	EM&A	C2*1	C2*130% IMO1		IMO2		MPB1	MPB2		MP			
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	6.8	6.8	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.8	6.8	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	17.3	17.3	N	N	N	N	N	N	Ν	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	01/17/09
Weather & Ambient Temperature	Sunny, 16C

Station			C1 (NM3)							
Time (hh:mm)			11:28	-11:30							
Water Depth (m)			16								
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	16.4	16.4	15.6	15.7	15.6	15.6	15.86	-			
Salinity (ppt)	31.6	31.6	32.6	32.6	32.8	32.8	32.31	-			
pH	8.0	8.0	8.0	8.1	8.0	8.0	8.01				
D.O. Saturation (%)	97.9	97.4	93.1	91.1	98.6	99.5	96.27	-			
D.O. (mg/L)	6.9	6.8	6.6	6.5	7.0	7.1	6.79	7.01			
Turbidity (NTU)	9.7	9.4	10.3	10.0	10.8	11.1	10.22	-			
SS (mg/L)	9.0	8.0	10.0	9.0	9.0	8.0	8.83	-			
Remarks		Dredging works was observed.									

Station			C3 (NM6)				
Time (hh:mm)			13:10					
Water Depth (m)			6	.4				
Monitoring Depth (m)	1	.0	3					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.0	16.9	16.4	16.4	16.3	16.4	16.57	-
Salinity (ppt)	27.5	27.5	29.0	29.1	29.4	29.4	28.65	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	
D.O. Saturation (%)	97.4	96.3	95.7	95.8	98.9	98.9	97.17	-
D.O. (mg/L)	6.9	6.9	6.8	6.8	7.0	7.0	6.91	7.03
Turbidity (NTU)	8.7	8.8	9.5	9.7	10.4	10.6	9.62	-
SS (mg/L)	10.0	9.0	10.0	9.0	8.0	9.0	9.17	-
Remarks			•	Dredo	jing works w	as observed.		<u> </u>

Station			IM	01			Co-ordinates Easting Easting 22.21.971 113.55.364 Depth-averaged Bottom 16.35 - 31.41 - 8.24	
Time (hh:mm)			12:03	-12:06			Northing	Easting
Water Depth (m)			9	.8		22.21.971	113.55.364	
Monitoring Depth (m)	1	1.0 4.9 8.8						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.3	17.3	16.0	16.0	15.8	15.8	16.35	-
Salinity (ppt)	30.6	30.5	31.6	31.6	32.1	32.1	31.41	-
pH	8.2	8.2	8.2	8.2	8.3	8.3	8.24	
D.O. Saturation (%)	96.2	96.4	89.2	87.6	90.8	91.3	91.92	-
D.O. (mg/L)	6.7	6.8	6.2	6.2	6.5	6.5	6.47	6.46
Turbidity (NTU)	10.9	10.8	11.4	11.5	11.8	12.0	11.40	-
SS (mg/L)	10.0 11.0 10.0 10.0 10.0 10.0						10.17	-
Remarks				Dredo	jing works w	as observed.		

Station			IIV	102			Co-ordinate	s		
Time (hh:mm)			11:40)-11:42			Northing	Easting		
Water Depth (m)			10		22.21.716	113.55.793				
Monitoring Depth (m)	1	.0	5	5.2	9	0.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	16.7	16.7	15.9	15.9	15.7	15.7	16.11	-		
Salinity (ppt)	31.2	31.1	32.0	32.1	32.3	32.3	31.82	-		
pH	8.2	8.2	8.2	8.2	8.1	8.2	8.18			
D.O. Saturation (%)	96.7	97.6	94.0	95.2	96.4	94.5	95.73	-		
D.O. (mg/L)	6.8	6.8	6.7	6.7	6.8	6.8	6.77	6.81		
Turbidity (NTU)	10.8	10.5	11.5	11.7	12.8	12.5	11.63	-		
SS (mg/L)	9.0	10.0	9.0	10.0	10.0	10.0	9.67	-		
Remarks		Dredging works was observed.								

Station			MF	PB1						
Time (hh:mm)			12:42	-12:44						
Water Depth (m)			8							
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 (°C)	17.3	17.2	16.9	16.9	16.6	16.7	16.92	-		
Salinity (ppt)	24.1	24.1	26.5	26.5	28.3	28.3	26.29	-		
pH	8.1	8.1	8.2	8.2	8.2	8.2	8.15			
D.O. Saturation (%)	98.9	97.4	96.8	97.6	100.4	100.1	98.53	-		
D.O. (mg/L)	7.1	7.1	6.9	7.0	7.1	7.1	7.07	7.14		
Turbidity (NTU)	9.2	9.3	9.9	10.1	10.6	10.5	9.93	-		
SS (mg/L)	10.0	10.0	10.0	9.0	8.0	9.0	9.33	-		
Remarks		Dredging works was observed.								

Station			MF	B2				
Time (hh:mm)			12:53	-12:55				
Water Depth (m)			9					
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 (°C)	17.2	17.2	16.9	16.9	16.8	16.8	16.99	-
Salinity (ppt)	24.4	24.5	26.7	26.8	27.1	27.2	26.11	-
pH	8.2	8.1	8.2	8.2	8.2	8.2	8.17	
D.O. Saturation (%)	98.9	97.7	98.6	100.0	101.0	102.2	99.73	-
D.O. (mg/L)	7.1	7.0	7.1	7.1	7.2	7.3	7.14	7.26
Turbidity (NTU)	9.8	9.6	10.1	10.2	10.5	10.7	10.15	-
SS (mg/L)	10.0	10.0	9.0	9.0	8.0	9.0	9.17	-
Remarks				Dredging	g works was	observed.		

Station			IV	IP							
Time (hh:mm)			12:33	-12:34							
Water Depth (m)			5								
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 (°C)	17.2	17.2	-	-	16.9	16.8	17.01	-			
Salinity (ppt)	25.7	25.6	-	-	26.8	26.7	26.19	-			
pH	8.2	8.2	-	-	8.2	8.2	8.17				
D.O. Saturation (%)	102.6	104.9	-	-	105.5	106.0	104.75	-			
D.O. (mg/L)	7.4	7.5	-	-	7.5	7.6	7.49	7.53			
Turbidity (NTU)	10.2	9.9	-	-	10.9	11.1	10.53	-			
SS (mg/L)	10.0	10.0	-	-	9.0	9.0	9.50	-			
Remarks		Dredging works was observed.									

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2			MPB1	MF	PB2	2 MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.0	7.0	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	6.9	6.9	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	12.9	12.9	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	11.7	11.7	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	1/18/2009
Weather & Ambient Temperature	Fine, 19C

Station			C2 (NM5)			1	
Time (hh:mm)								
Water Depth (m)			19	9.4				
Monitoring Depth (m)	1	.0	9	.7	18	3.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.2	20.4	20.6	19.9	20.0	20.53	-
Salinity (ppt)	33.9	33.3	37.7	37.8	39.7	39.8	37.03	-
pH	7.9	7.9	8.1	8.1	8.0	8.1	8.01	
D.O. Saturation (%)	98.1	95.7	97.7	96.4	97.7	96.1	96.95	-
D.O. (mg/L)	7.7	7.5	7.6	7.4	7.5	7.5	7.54	7.51
Turbidity (NTU)	4.2	4.3	5.3	5.1	5.7	5.8	5.07	-
SS (mg/L)	5.0	6.0	4.0	4.83	-			
Remarks			С	redging wor	ks was obse	rved.		

Station			IM	101			Co-ord	dinates
Time (hh:mm)			Northing	Easting				
Water Depth (m)			9	.4			22.22.004	113.55.392
Monitoring Depth (m)	1	.0	3.4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.2	20.7	20.8	20.5	20.4	20.79	-
Salinity (ppt)	31.5	31.7	33.2	33.2	35.9	36.0	33.58	-
pH	7.9	7.9	7.9	8.0	7.9	8.0	7.94	
D.O. Saturation (%)	95.1	95.5	95.8	93.4	97.6	96.1	95.58	-
D.O. (mg/L)	7.4	7.5	7.5	7.4	7.8	7.54	7.53	7.69
Turbidity (NTU)	4.4	4.2	5.1	5.1	6.0	6.1	5.15	-
SS (mg/L)	5.0	4.0	5.0	5.0	5.0	5.0	4.83	-
Remarks		•		redaina wor	ks was obse	rved.	•	•

Station			IM	102			Co-ord	dinates		
Time (hh:mm)				Northing	Easting					
Water Depth (m)			10	0.4			22.21.763	113.55.778		
Monitoring Depth (m)	1	.0	5	.2	9	.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	21.5	21.6	20.8	20.8	20.3	20.2	20.85	-		
Salinity (ppt)	29.3	29.0	33.8	33.7	37.1	37.3	33.37	-		
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96			
D.O. Saturation (%)	95.6	95.3	95.7	96.7	96.8	97.5	96.27	-		
D.O. (mg/L)	7.5	7.5	7.4	7.5	7.6	7.61	7.52	7.59		
Turbidity (NTU)	4.9	4.9	5.4	5.4	5.7	5.9	5.37	-		
SS (mg/L)	6.0	5.0	5.0	5.0	5.0	5.0	5.17	-		
Remarks		Dredging works was observed.								

Station			MF	B1							
Time (hh:mm)											
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-	Bottom			
							averaged				
Water Temperature (°C)	21.2	21.2	20.6	20.7	20.6	20.4	20.78	-			
Salinity (ppt)	31.2	31.0	35.2	35.1	36.8	36.7	34.34	-			
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96				
D.O. Saturation (%)	96.5	96.0	96.8	95.9	96.3	95.7	96.20	-			
D.O. (mg/L)	7.6	7.6	7.7	7.5	7.5	7.4	7.55	7.44			
Turbidity (NTU)	4.8	4.7	5.4	5.6	6.7	6.8	5.67	-			
SS (mg/L)	5.0	5.0 6.0 5.0 5.0 6.0 5.33									
Remarks			D	redging worl	ks was obse	rved.	•				

Station			M	PB2							
Time (hh:mm)			19:24	-19:25							
Water Depth (m)											
Monitoring Depth (m)	1	.0	4	.2	7	.4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	21.3	21.2	21.0	20.9	20.5	20.3	20.85	-			
Salinity (ppt)	29.9	30.0	33.1	32.5	36.5	36.4	33.08	-			
pH	7.8	7.9	7.9	7.9	8.0	7.9	7.90				
D.O. Saturation (%)	95.6	96.1	94.9	95.5	95.6	96.2	95.65	-			
D.O. (mg/L)	7.6	7.6	7.4	7.5	7.5	7.5	7.52	7.50			
Turbidity (NTU)	4.5	4.2	5.2	5.1	6.8	6.7	5.42	-			
SS (mg/L)	7.0	7.0	5.0	5.0	5.0	4.0	5.50	-			
Remarks		Dredging works was observed.									

Station			IV	IP					
Time (hh:mm)			18:22	-18:22					
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 (°C)	21.1	21.0	-	-	20.6	20.5	20.80	-	
Salinity (ppt)	30.8	31.1	-	-	34.7	34.8	32.84	-	
pH	8.0	8.0	-	-	8.0	8.0	7.99		
D.O. Saturation (%)	95.6	95.1	-	-	95.4	94.8	95.23	-	
D.O. (mg/L)	7.6	7.5	-	-	7.5	7.4	7.49	7.46	
Turbidity (NTU)	4.9	4.9	-	-	5.4	5.6	5.20	-	
SS (mg/L)	5.0	5.0	-	-	5.0	5.0	5.00	-	
Remarks	Dredging works was observed.								

Compliance with Action at	id Lillill Lev	<u>rei</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.5	7.5	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.5	7.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	6.6	6.6	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	6.3	6.3	N	N	N	N	N	N	N	N	N	N

Sampling Date	1/18/2009
Weather & Ambient Temperature	Fine, 19C

Station			C1 (NM3)			1	
Time (hh:mm)			11:48	-11:49				
Water Depth (m)			10	6.2				
Monitoring Depth (m)	1	.0	8	.1	15	5.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	20.7	21.0	19.6	19.7	19.2	19.3	19.90	-
Salinity (ppt)	34.4	33.8	38.0	37.7	40.3	40.0	37.38	-
pH	8.1	8.0	8.1	8.0	8.1	8.1	8.06	
D.O. Saturation (%)	96.4	97.0	96.8	96.9	98.0	97.9	97.17	
D.O. (mg/L)	7.6	7.6	7.6	7.6	7.7	7.6	7.61	7.63
Turbidity (NTU)	5.1	5.0	5.4	5.2	5.7	5.9	5.38	-
SS (mg/L)	5.0	6.0	5.0	5.0	5.0	6.0	5.33	-
Remarks				Dredging v	vorks was ob	served.		

Station			C3 (NM6)			1		
Time (hh:mm)			12:05	-12:06					
Water Depth (m)									
Monitoring Depth (m)	1	.0	3	.6					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	20.2	21.3	20.4	20.8	21.1	20.7	20.76	-	
Salinity (ppt)	38.5	32.5	38.5	34.9	32.8	35.1	35.35	-	
pH	7.8	7.8	7.9	7.9	7.8	7.9	7.85		
D.O. Saturation (%)	101.8	100.9	100.1	100.7	99.9	99.8	100.53	-	
D.O. (mg/L)	7.9	7.9	7.8	7.8	7.7	7.8	7.82	7.77	
Turbidity (NTU)	7.1	4.2	7.2	4.9	4.2	4.9	5.42	-	
SS (mg/L)	5.0	5.0 5.0 6.0 5.0 5.0 4.0 5.00							
Remarks				Dredging v	vorks was ob	served.			

Station			IM	101			Co-ordina	ates
Time (hh:mm)			12:42	-12:43			Northing	Easting
Water Depth (m)			10	0.0			22.22.004	113.55.395
Monitoring Depth (m)	1	.0	5	5.0	9	.0		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.2	21.0	20.6	20.7	20.4	20.4	20.71	-
Salinity (ppt)	31.5	31.7	33.6	33.7	36.0	35.9	33.71	-
pH	7.9	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	95.6	95.2	95.4	93.7	95.6	95.4	95.15	-
D.O. (mg/L)	7.5	7.4	7.4	7.4	7.6	7.5	7.47	7.52
Turbidity (NTU)	4.7	4.7	5.4	5.3	5.8	5.8	5.28	-
SS (mg/L)	6.0	5.0	5.0	5.0	7.0	7.0	5.83	-
Remarks				Dredging v	vorks was ob	served.		

Station			IM	02			Co-ordina	ates			
Time (hh:mm)			12:24	-12:25			Northing	Easting			
Water Depth (m)			10		22.21.767	113.55.777					
Monitoring Depth (m)	1	.0	.8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.4	21.2	20.8	20.6	20.2	20.6	20.77	-			
Salinity (ppt)	29.2	29.2	34.0	35.2	37.5	36.7	33.63	-			
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.95				
D.O. Saturation (%)	97.3	96.3	96.3	95.7	96.6	96.5	96.45	-			
D.O. (mg/L)	7.7	7.6	7.6	7.5	7.5	7.5	7.55	7.51			
Turbidity (NTU)	4.9	5.0	6.4	6.3	6.9	7.3	6.13	-			
SS (mg/L)	7.0	7.0	8.0	8.0	8.0	8.0	7.67	-			
Remarks		Dredging works was observed.									

Mid-Flood

Station			MF	PB1				
Time (hh:mm)			13:15	-13:16				
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 (°C)	21.5	21.3	20.7	20.6	20.4	20.4	20.80	-
Salinity (ppt)	30.1	31.0	34.9	35.0	36.3	36.5	33.99	-
pH	7.9	7.9	8.0	8.0	8.0	8.0	7.96	
D.O. Saturation (%)	97.5	96.7	98.3	97.0	99.9	97.5	97.82	-
D.O. (mg/L)	7.7	7.7	7.7	7.6	7.8	7.6	7.70	7.70
Turbidity (NTU)	5.5	5.2	5.8	5.8	6.1	5.9	5.72	-
SS (mg/L)	6.0	5.0	8.0	9.0	7.0	7.0	7.00	-
Remarks				Dredging	g works was	observed.	•	

Station			MF	PB2			•	
Time (hh:mm)			13:04	-13:05				
Water Depth (m)			8	.6				
Monitoring Depth (m)	1	.0	4	.3	7	7.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.3	21.3	20.8	21.0	20.3	20.3	20.81	-
Salinity (ppt)	29.7	29.8	32.9	32.9	36.3	37.5	33.17	-
pH	7.8	7.8	7.9	7.9	7.9	7.9	7.89	
D.O. Saturation (%)	96.9	96.4	96.1	96.8	96.8	97.2	96.70	-
D.O. (mg/L)	7.7	7.6	7.6	7.6	7.6	7.6	7.60	7.61
Turbidity (NTU)	4.5	4.4	5.4	5.6	5.9	5.9	5.28	-
SS (mg/L)	5.0	6.0	6.0	6.0	6.0	6.0	5.83	-
Remarks				Dredgin	g works was	observed.		

Station			N	IP.			Ī			
Time (hh:mm)			13:25	-13:25						
Water Depth (m)			5							
Monitoring Depth (m)	1	.0	2	.8						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.2	21.1	-	-	20.6	20.7	20.89	-		
Salinity (ppt)	31.1	30.8	-	-	34.6	34.6	32.78	-		
pH	7.9	8.0	-	-	8.0	8.0	7.98			
D.O. Saturation (%)	97.8	96.1	-	-	99.4	95.5	97.20	-		
D.O. (mg/L)	7.7	7.6	-	-	7.8	7.5	7.65	7.64		
Turbidity (NTU)	4.5	4.6	-	-	5.0	5.0	4.78	-		
SS (mg/L)	5.0	6.0	-	-	6.0	7.0	6.00	-		
Remarks		Dredging works was observed.								

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1+	Mean(C1+C3)*130%		101	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Action Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.7	7.7	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.7	7.7	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	7.0	7.0	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	6.7	6.7	N	N	N	N	N	N	Ν	N	Ν	N

Sampling Date	1/19/2009
Weather & Ambient Temperature	Sunny, 20C

Station			C2 (NM5)			1	
Time (hh:mm)			- 1	-7:56				
Water Depth (m)								
Monitoring Depth (m)	1	.0	9	.7	18	3.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	21.1	21.2	20.4	20.4	19.7	19.7	20.40	-
Salinity (ppt)	26.8	26.6	29.3	29.3	31.4	31.5	29.15	-
pH	7.6	7.7	7.6	7.7	7.6	7.7	7.64	
D.O. Saturation (%)	86.3	85.5	76.5	75.7	72.9	73.7	78.43	-
D.O. (mg/L)	5.7	5.7	5.1	5.0	4.8	4.9	5.19	4.84
Turbidity (NTU)	5.2	5.4	6.82	-				
SS (mg/L)	4.0	5.0	4.83	-				
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	01			Co-ord	dinates
Time (hh:mm)			7:01	-7:03			Northing	Easting
Water Depth (m)				22.21.821	113.55.177			
Monitoring Depth (m)	1	.0		3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.1	20.5	20.5	20.0	20.0	20.49	-
Salinity (ppt)	23.6	23.5	28.5	28.5	30.2	30.2	27.42	-
pH	7.6	7.6	7.7	7.7	7.6	7.7	7.64	
D.O. Saturation (%)	83.3	84.5	75.0	74.5	72.9	73.6	77.30	-
D.O. (mg/L)	5.7	5.7	5.0	4.9	4.8	4.88	5.17	4.86
Turbidity (NTU)	6.2	6.2	7.67	-				
SS (mg/L)	6.0	5.0	5.33	-				
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)			6:50	-6:52			Northing	Easting
Water Depth (m)			22.21.729	113.55.804				
Monitoring Depth (m)	1	.0	5	.6	10).1		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.1	21.1	20.5	20.6	20.0	20.0	20.55	-
Salinity (ppt)	24.6	24.8	28.6	28.3	30.7	30.4	27.90	-
pH	7.7	7.7	7.7	7.7	7.7	7.6	7.66	
D.O. Saturation (%)	73.2	84.7	76.2	77.0	74.2	73.5	76.47	-
D.O. (mg/L)	5.8	5.7	5.24	4.89				
Turbidity (NTU)	6.3	6.2	7.48	-				
SS (mg/L)	6.0	5.0	5.33	-				
Remarks		-	No	dredging wo	orks was obs	erved.	•	

Station			MF	PB1			1	
Time (hh:mm)			7:27	-7:29				
Water Depth (m)								
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 (°C)	21.4	21.4	20.79	-				
Salinity (ppt)	20.0	19.8	26.3	26.1	28.0	27.6	24.62	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.58	
D.O. Saturation (%)	86.1	84.7	75.3	75.3	76.8	76.9	79.18	-
D.O. (mg/L)	5.9	5.8	5.1	5.1	5.1	5.1	5.35	5.14
Turbidity (NTU)	5.6	5.6	6.33	-				
SS (mg/L)	5.0	5.0	4.50	-				
Remarks			No	dredging wo	orks was obs	served.		

Station			MF	PB2								
Time (hh:mm)			7:16	-7:18								
Water Depth (m)												
Monitoring Depth (m)	1	.0	4	.7	8	.3						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom				
							averaged					
Water Temperature (°C)	21.5	21.5	21.0	21.1	20.8	20.7	21.10	-				
Salinity (ppt)	18.9	19.7	25.0	23.6	26.2	27.6	23.50	-				
pH	7.7	7.6	7.7	7.7	7.6	7.6	7.65					
D.O. Saturation (%)	90.1	90.5	80.7	79.1	77.6	79.1	82.85	-				
D.O. (mg/L)	6.2	6.2	5.4	5.3	5.2	5.3	5.60	5.22				
Turbidity (NTU)	6.1	6.2	8.3	7.40	-							
SS (mg/L)	6.0	6.0 6.0 3.0 4.0 4.0 3.0 4.33										
Remarks		•	No	dredging we	orks was obs	served.						

Station			N	IP			1		
Time (hh:mm)			7:37	-7:38					
Water Depth (m)			5	.8					
Monitoring Depth (m)	1	.0	2	.9	4	.8			
Trial	Trial 1								
Water Temperature (°C)	21.1	21.1	-	-	20.5	20.5	20.81	-	
Salinity (ppt)	21.0	21.2	-	-	26.5	26.0	23.69	-	
pH	7.5	7.5	-	-	7.5	7.4	7.49		
D.O. Saturation (%)	83.7	82.4	-	-	77.8	76.2	80.03	-	
D.O. (mg/L)	5.7	5.7	-	-	5.2	5.1	5.43	5.17	
Turbidity (NTU)	7.9	8.0	8.38	-					
SS (mg/L)	5.0	5.0	6.0	5.75	-				
Remarks			No	dredging wo	orks was obs	erved.	•		

Compliance with Action at	ia Limit Lev	<u>/ei</u>												
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	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	5.2	5.2	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.9	8.9	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	6.3	6.3	N	N	N	N	N	N	N	N	N	N

Sampling Date	1/19/2009
Weather & Ambient Temperature	Sunny, 20C

Station			C1 (NM3)				
Time (hh:mm)			11:45					
Water Depth (m)			16	6.4				
Monitoring Depth (m)	1	.0	8	3.2	15	5.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	22.3	21.7	21.6	21.0	21.0	21.63	-
Salinity (ppt)	27.0	26.9	29.0	29.10	-			
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.62	
D.O. Saturation (%)	86.9	86.2	77.3	77.0	75.2	75.9	79.75	-
D.O. (mg/L)	5.8	5.7	5.1	5.1	5.0	5.0	5.29	5.01
Turbidity (NTU)	5.5	5.4	7.0	7.0	9.1	9.4	7.23	-
SS (mg/L)	4.0	4.0	5.0	5.0	4.67	-		
Remarks				No dred	dging works	was observe	d.	

Station			C3 (
Time (hh:mm)			10:37					
Water Depth (m)			7	.4				
Monitoring Depth (m)	1	.0	3	.7	6	.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.7	22.6	22.3	22.3	21.7	22.1	22.27	-
Salinity (ppt)	19.7	19.8	23.7	23.74	-			
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.60	
D.O. Saturation (%)	92.4	92.1	83.8	84.3	80.1	82.7	85.90	-
D.O. (mg/L)	6.4	6.3	5.7	5.7	5.3	5.5	5.81	5.42
Turbidity (NTU)	5.8	5.7	6.3	6.3	7.5	7.5	6.52	-
SS (mg/L)	4.0	6.0	4.0	3.0	4.17	-		
Remarks				No dred	dging works	was observe	d.	

Station			IM	01			Co-ordinates	5
Time (hh:mm)			11:02	-11:03			Northing	Easting
Water Depth (m)			14	1.4		22.21.821	113.55.176	
Monitoring Depth (m)	1	.0	7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.3	22.5	21.8	21.7	21.2	21.2	21.79	-
Salinity (ppt)	23.8	24.2	28.3	28.5	30.0	30.2	27.50	-
pH	7.6	7.7	7.7	7.6	7.6	7.6	7.63	
D.O. Saturation (%)	84.1	84.1	75.6	75.5	74.9	74.0	78.03	-
D.O. (mg/L)	5.7	5.7	5.0	5.0	5.0	4.9	5.21	4.94
Turbidity (NTU)	6.0	6.3	7.2	7.2	8.4	8.3	7.23	-
SS (mg/L)	5.0	5.0	4.0	6.0	4.0	4.67	-	
Remarks				No dre	dging works	was observe	d.	

Station			IIV	102			Co-ordinate	s		
Time (hh:mm)			10:51	-10:53			Northing	Easting		
Water Depth (m)			10		22.21.733	113.55.801				
Monitoring Depth (m)	1	.0	5	i.3	9	.5				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	22.3	22.3	21.8	21.8	21.2	21.2	21.77	-		
Salinity (ppt)	24.2	24.5	28.1	28.2	30.6	30.4	27.66	-		
pH	7.6	7.6	7.6	7.7	7.7	7.6	7.63			
D.O. Saturation (%)	85.8	85.2	75.6	75.6	73.1	73.1	78.07	-		
D.O. (mg/L)	5.8	5.7	5.0	5.0	4.8	4.8	5.21	4.83		
Turbidity (NTU)	6.3	6.3	7.3	7.4	9.0	8.8	7.52	-		
SS (mg/L)	4.0	6.0	5.0	6.0	4.0	4.0	4.83	-		
Remarks		No dredging works was observed.								

Station			MF	PB1							
Time (hh:mm)			11:21	-11:23							
Water Depth (m)			8								
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	22.5	22.6	21.8	21.8	21.6	21.6	21.99	-			
Salinity (ppt)	19.6	19.2	26.3	26.0	28.6	28.9	24.75	-			
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.58				
D.O. Saturation (%)	85.5	84.4	75.5	76.1	77.6	77.1	79.37	-			
D.O. (mg/L)	5.9	5.8	5.1	5.1	5.2	5.1	5.36	5.14			
Turbidity (NTU)	6.2	6.1	7.1	7.1	7.7	7.9	7.02	-			
SS (mg/L)	5.0	4.0	5.0	5.0	7.0	5.0	5.17	-			
Remarks		No dredging works was observed.									

Station			MF	B2				
Time (hh:mm)			11:31	-11:32				
Water Depth (m)			8					
Monitoring Depth (m)	1	.0	4					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.7	22.7	22.3	22.2	21.8	21.8	22.26	-
Salinity (ppt)	18.5	18.3	23.7	24.9	27.7	27.9	23.50	-
pH	7.6	7.6	7.7	7.6	7.6	7.6	7.63	
D.O. Saturation (%)	88.2	88.3	81.4	81.0	78.4	78.4	82.62	-
D.O. (mg/L)	6.1	6.1	5.5	5.4	5.2	5.2	5.59	5.22
Turbidity (NTU)	6.3	6.3	7.3	7.3	8.2	8.1	7.25	-
SS (mg/L)	6.0	5.0	5.0	5.0	5.0	4.0	5.00	-
Remarks				No dredgi	ng works wa	s observed.		

Station			IV	IP				
Time (hh:mm)			11:12	-11:14				
Water Depth (m)			5					
Monitoring Depth (m)	1.	.0	2					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.2	22.3	-	-	21.7	21.7	21.99	-
Salinity (ppt)	21.5	21.2	-	-	26.6	26.8	24.01	-
pH	7.5	7.5	-	-	7.5	7.5	7.51	
D.O. Saturation (%)	81.4	81.3	-	-	76.5	75.4	78.65	-
D.O. (mg/L)	5.6	5.6	-	-	5.1	5.1	5.33	5.09
Turbidity (NTU)	6.7	6.7	-	-	8.0	7.7	7.28	-
SS (mg/L)	4.0	4.0	-	-	5.0	6.0	4.75	-
Remarks				No dredgii	ng works wa	s observed.		

Compliance with Action an	d Limit Lev	el													
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IIV	101	IMO2			MPB1	MF	PB2	IV	MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan	
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit	
					Action	Level		Level	Level		Action	Level	Action	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	5.6	5.6	N	N	N	N	N	N	Z	N	N	N	
Turbidity (Depth-averaged)	29.0	49.0	8.9	8.9	N	N	N	N	N	N	Z	N	N	N	
SS (Depth-averaged)	24.0	37.0	5.7	5.7	N	Ν	N	N	N	N	N	N	N	N	

Sampling Date	01/20/2009
Weather & Ambient Temperature	Fine, 19C

Station			C2 (I	NM5)			1	
Time (hh:mm)								
Water Depth (m)			18	3.8				
Monitoring Depth (m)	1.0 9.4 17.8							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.8	21.1	19.7	19.7	18.4	18.4	19.68	-
Salinity (ppt)	26.3	25.9	29.5	29.4	32.5	32.6	29.37	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	8.00	
D.O. Saturation (%)	87.7	87.0	70.6	70.4	66.4	66.7	74.80	-
D.O. (mg/L)	5.7	5.7	4.6	4.5	4.3	4.3	4.85	4.30
Turbidity (NTU)	5.0	5.2	5.5	5.8	9.9	9.8	6.87	-
SS (mg/L)	8.0	8.0	8.0	9.0	9.0	8.0	8.33	•
Remarks			No	dredging wo	orks was obs	served.		

Station			IM	01			Co-ord	dinates
Time (hh:mm)			20:00	-20:04			Northing	Easting
Water Depth (m)	17.3						22.21.829	113.55.178
Monitoring Depth (m)	1	.0	8	.7	16	6.3		-
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	20.9	21.1	19.9	19.8	18.8	18.8	19.87	-
Salinity (ppt)	24.7	24.5	28.6	28.8	31.7	31.6	28.32	-
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97	
D.O. Saturation (%)	84.0	86.1	66.7	67.9	64.4	62.2	71.88	-
D.O. (mg/L)	5.5	5.6	4.3	4.4	4.2	4.00	4.66	4.08
Turbidity (NTU)	6.6	6.5	8.4	8.6	10.6	10.6	8.55	-
SS (mg/L)	7.0	8.0	6.0	6.0	7.0	7.0	6.83	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			IM	02			Co-ord	dinates
Time (hh:mm)				Northing	Easting			
Water Depth (m)			12	2.4			22.21.737	113.55.803
Monitoring Depth (m)	1	.0	6	.2	11	1.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.2	21.3	20.2	20.3	19.0	19.0	20.16	-
Salinity (ppt)	24.6	24.6	28.2	27.8	31.5	31.6	28.06	-
pH	8.1	8.0	8.0	8.0	7.9	8.0	8.00	
D.O. Saturation (%)	84.8	89.2	74.4	74.5	67.5	67.7	76.35	-
D.O. (mg/L)	6.0	5.8	4.8	4.8	4.4	4.36	5.02	4.36
Turbidity (NTU)	6.3	6.1	7.7	7.6	8.9	9.4	7.67	-
SS (mg/L)	7.0	6.0	6.0	5.0	6.0	6.0	6.00	-
Remarks			No	dredging wo	orks was obs	erved.		

Station			MF	PB1			1	
Time (hh:mm)								
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 (°C)	21.9	21.8	20.1	20.2	19.9	20.0	20.63	-
Salinity (ppt)	18.7	18.8	27.2	26.9	28.3	27.7	24.61	-
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.92	
D.O. Saturation (%)	92.7	88.6	70.2	70.4	73.4	74.7	78.33	-
D.O. (mg/L)	6.2	5.9	4.6	4.6	4.8	4.9	5.15	4.81
Turbidity (NTU)	5.1	5.2	6.5	6.4	6.9	7.0	6.18	-
SS (mg/L)	7.0	6.0	8.0	8.0	8.0	7.0	7.33	-
Remarks			No	dredging wo	orks was obs	served.		

Station			M	PB2						
Time (hh:mm)										
Water Depth (m)			8	3.8						
Monitoring Depth (m)	1	.0	4	.4	7	.8				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom		
							averaged			
Water Temperature (°C)	21.9	22.0	21.2	21.4	20.6	20.3	21.22	-		
Salinity (ppt)	18.4	18.5	22.1	21.0	23.7	27.5	21.84	-		
pH	8.1	8.0	8.0	8.0	7.9	7.9	7.98			
D.O. Saturation (%)	102.5	103.0	82.1	78.7	73.1	76.9	86.05	-		
D.O. (mg/L)	6.9	6.9	5.4	5.2	4.8	5.0	5.71	4.90		
Turbidity (NTU)	6.4	6.3	9.3	9.2	9.2	9.9	8.38	-		
SS (mg/L)	8.0	7.0	6.0	6.0	6.0	6.0	6.50	-		
Remarks		No dredging works was observed.								

Station			N	IP			1			
Time (hh:mm)										
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 (°C)	21.0	21.2	-	-	20.1	20.1	20.60	-		
Salinity (ppt)	22.6	22.0	-	-	27.1	27.3	24.76	-		
pH	7.9	7.9	-	-	7.7	7.8	7.79			
D.O. Saturation (%)	83.9	86.1	-	-	68.1	74.2	78.08	-		
D.O. (mg/L)	5.6	5.7	-	-	4.4	4.8	5.13	4.63		
Turbidity (NTU)	7.8	7.6	-	-	8.9	8.4	8.18	-		
SS (mg/L)	7.0	6.0	-	-	6.0	6.0	6.25	-		
Remarks		No dredging works was observed.								

Compliance with Action at	Compliance with Action and Limit Level													
Parameter	As in	EM&A	C2*1	C2*130%		IMO1		IMO2		MPB1	MF	B2	MP	
	Action	Limit	Action Limit E		Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	4.3	4.3	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	8.9	8.9	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	Ν	N	N	N	N

Sampling Date	01/20/2009
Weather & Ambient Temperature	Sunny, 19C

Station			C1 (NM3)								
Time (hh:mm)			10:57	-11:00								
Water Depth (m)			16	6.2								
Monitoring Depth (m)	1	.0	8	5.2								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	21.0	21.0	20.0	19.6	18.5	18.5	19.78	-				
Salinity (ppt)	26.1	26.1 26.0		30.0	32.3	32.4	29.27	-				
pH	7.9	8.0	8.0	8.0	8.0	7.8	7.95					
D.O. Saturation (%)	87.6	86.9	71.0	69.7	66.7	68.1	75.00	-				
D.O. (mg/L)	5.7	5.7	4.6	4.5	4.3	4.4	4.86	4.36				
Turbidity (NTU)	5.2	5.3	6.4	6.3	9.2	9.5	6.98	-				
SS (mg/L)	6.0	6.0	6.0	6.0	5.67	-						
Remarks		No dredging works was observed.										

Station			C3 (NM6)								
Time (hh:mm)			9:40	-9:41								
Water Depth (m)			7	.2								
Monitoring Depth (m)	1	.0	3	.2								
Trial	Trial 1 Trial 2 Trial 1 Trial 2 Trial 1 Trial 2						Depth-averaged	Bottom				
Water Temperature (°C)	21.9 21.9		21.4	21.3	20.1	21.0	21.27	-				
Salinity (ppt)	19.2 19.4		22.1	22.3	28.8	26.0	22.96	-				
pH	8.0	8.0	8.0	8.0	7.8	7.9	7.96					
D.O. Saturation (%)	105.4	106.3	88.4	88.6	79.5	84.4	92.10	-				
D.O. (mg/L)	7.1	7.1	5.8	5.9	5.2	5.5	6.09	5.34				
Turbidity (NTU)	5.1	5.3	6.3	6.72	-							
SS (mg/L)	5.0	6.0	7.0	6.0	6.17	-						
Remarks		No dredging works was observed.										

Station			IM	01			Co-ordinate	s		
Time (hh:mm)			10:33	-10:37			Northing	Easting		
Water Depth (m)			17	7.0			22.21.827	113.55.161		
Monitoring Depth (m)	1	.0	8	6.0						
Trial	Trial 1 Trial 2		Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	21.1	21.1	20.0	20.1	18.8	18.8	19.98	-		
Salinity (ppt)	24.6 24.8		28.8	28.5	31.6	31.6	28.32	-		
pH	7.9	7.9	7.9	7.9	7.9	7.8	7.91			
D.O. Saturation (%)	85.9	85.5	68.8	69.1	65.3	67.3	73.65	-		
D.O. (mg/L)	5.6	5.6	4.4	4.5	4.2	4.3	4.78	4.27		
Turbidity (NTU)	6.4	6.4	8.1	8.2	9.3	10.5	8.15	-		
SS (mg/L)	6.0	8.0	8.0	9.0	7.67	-				
Remarks		No dredging works was observed.								

Station			IM	02			Co-ordinate	s			
Time (hh:mm)			10:44	-10:47			Northing	Easting			
Water Depth (m)			11	1.4			22.21.722	113.55.804			
Monitoring Depth (m)	1	.0	5	0.4							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.4	21.4	20.2	20.3	19.0	19.1	20.21	-			
Salinity (ppt)	24.5			27.7	31.6	31.6	28.01	-			
pH	8.0	8.0	8.0	8.0	8.0	8.0	7.97				
D.O. Saturation (%)	89.7	91.0	71.6	72.1	66.1	65.2	75.95	-			
D.O. (mg/L)	5.9	6.0	4.6	4.7	4.3	4.2	4.93	4.22			
Turbidity (NTU)	6.4 6.3		7.8	7.5	9.6	9.3	7.82	-			
SS (mg/L)	6.0	6.0	7.0	7.0	6.67	-					
Remarks		No dredging works was observed.									

Station			M	PB1							
Time (hh:mm)			10:06	-10:08							
Water Depth (m)			8								
Monitoring Depth (m)	1	.0	4								
Trial	Trial 1	Trial 2	Depth-averaged	Bottom							
Water Temperature (°C)	21.7	21.7	20.2	20.1	19.8	19.9	20.56	-			
Salinity (ppt)	19.0	18.6	27.4	27.2	29.0	28.8	24.99	-			
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.91				
D.O. Saturation (%)	91.0	88.8	68.8	70.3	72.0	73.7	77.43	-			
D.O. (mg/L)	6.1	6.0	4.5	4.6	4.7	4.8	5.09	4.72			
Turbidity (NTU)	5.6	5.6	7.1	7.4	8.5	8.3	7.08	-			
SS (mg/L)	6.0	6.0	5.0	5.83	-						
Remarks		No dredging works was observed.									

Station			MF	B2								
Time (hh:mm)			9:57	-9:58								
Water Depth (m)			9									
Monitoring Depth (m)	1	.0	4									
Trial	Trial 1	Trial 2	Depth-averaged	Bottom								
Water Temperature (°C)	21.9 22.1		21.5	21.2	20.2	20.2	21.18	-				
Salinity (ppt)	18.1 17.9		20.9	22.7	27.6	27.9	22.53	-				
pH	8.1	8.0	8.0	8.0	7.9	7.9	7.98					
D.O. Saturation (%)	97.5	98.6	83.9	83.0	75.5	75.0	85.58	-				
D.O. (mg/L)	6.6	6.6	5.6	5.5	4.9	4.9	5.66	4.89				
Turbidity (NTU)	6.1	6.2	9.3	8.28	-							
SS (mg/L)	8.0	7.0	8.0	6.0	7.00	-						
Remarks		No dredging works was observed.										

Station			IV	IP							
Time (hh:mm)			10:15	-10:17							
Water Depth (m)			5								
Monitoring Depth (m)	1.	.0	2								
Trial	Trial 1	Trial 2	Depth-averaged	Bottom							
Water Temperature (°C)	21.1	21.0	-	-	20.1	20.1	20.59	-			
Salinity (ppt)	22.2	22.7	-	-	27.6	27.4	24.98	-			
pH	7.9	7.9	-	-	7.8	7.8	7.83				
D.O. Saturation (%)	82.2	81.8	-	-	69.1	71.8	76.23	-			
D.O. (mg/L)	5.4	5.4	-	-	4.5	4.7	5.00	4.58			
Turbidity (NTU)	7.7	7.8	-	8.30	-						
SS (mg/L)	6.0	6.0	-	5.50	-						
Remarks		No dredging works was observed.									

Compliance with Action an	d Limit Lev	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		101	IMO2		MPB1		MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	5.5	5.5	N	N	N	N	N	N	Ν	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.9	8.9	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	7.7	7.7	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	01/21/2009
Weather & Ambient Temperature	Cloudy, 18C

Station			C2 (NM5)			1		
Time (hh:mm)			21:47	-21:50			1		
Water Depth (m)									
Monitoring Depth (m)	1	.0							
Trial	Trial 1								
Water Temperature (°C)	20.9	21.1	19.8	19.9	18.7	18.7	19.85	-	
Salinity (ppt)	26.3	26.0	29.4	29.3	32.3	32.3	29.25	-	
pH	7.9	8.0	8.0	7.9	7.9	8.0	7.93		
D.O. Saturation (%)	87.2	86.5	71.5	71.5	67.6	68.0	75.38	-	
D.O. (mg/L)	5.7	5.7	4.6	4.6	4.4	4.4	4.91	4.40	
Turbidity (NTU)	5.1	5.3	6.87	-					
SS (mg/L)	6.0	7.33	-						
Remarks			No	dredging wo	orks was obs	erved.			

Station			IM	01			Co-ore	dinates
Time (hh:mm)			20:45	-20:49			Northing	Easting
Water Depth (m)			22.20.791	113.53.644				
Monitoring Depth (m)	1	.0		-				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.0	21.1	20.0	20.0	19.0	19.0	20.02	-
Salinity (ppt)	24.4	24.2	28.6	28.7	31.3	31.2	28.06	-
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90	
D.O. Saturation (%)	83.6	85.5	68.0	69.1	66.0	64.1	72.72	-
D.O. (mg/L)	5.5	5.6	4.4	4.5	4.3	4.15	4.75	4.22
Turbidity (NTU)	6.5	6.4	8.2	8.4	10.2	10.2	8.32	-
SS (mg/L)	6.0	6.0	5.0	4.0	5.0	4.0	5.00	-
Remarks			No	dredging wo	orks was obs	served.		

Station			IM	02			Co-ordinates		
Time (hh:mm)			20:35	-20:38			Northing	Easting	
Water Depth (m)			22.21.510	113.54.436					
Monitoring Depth (m)	1	.0							
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom	
							averaged		
Water Temperature (°C)	21.2	21.3	20.3	20.4	19.2	19.2	20.25	-	
Salinity (ppt)	24.5	24.6	28.2	27.9	31.2	31.4	27.95	-	
pH	8.0	8.0	7.9	7.9	7.9	7.9	7.93		
D.O. Saturation (%)	80.4	88.0	74.4	74.7	68.5	68.8	75.80	-	
D.O. (mg/L)	5.9	5.8	4.9	4.9	4.4	4.46	5.05	4.45	
Turbidity (NTU)	6.3	6.2	7.6	7.6	8.9	9.3	7.65	-	
SS (mg/L)	5.0	6.0	5.0	4.0	4.0	5.0	4.83	-	
Remarks		-	No	dredging wo	orks was obs	erved.	-		

Station			MF	PB1				
Time (hh:mm)								
Water Depth (m)								
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 (°C)	21.8	21.7	20.2	20.3	20.0	20.1	20.68	-
Salinity (ppt)	18.8	18.9	26.9	26.6	28.2	27.6	24.50	-
pH	7.9	7.9	7.8	7.8	7.8	7.8	7.85	
D.O. Saturation (%)	90.9	87.4	70.9	71.0	73.7	74.7	78.10	-
D.O. (mg/L)	6.1	5.9	4.6	4.7	4.8	4.9	5.16	4.85
Turbidity (NTU)	5.2	5.3	6.5	6.4	6.9	7.0	6.22	-
SS (mg/L)	6.0	5.0	4.0	4.0	6.0	7.0	5.33	-
Remarks			No	dredging wo	orks was obs	served.		

Station			M	PB2							
Time (hh:mm)											
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-	Bottom			
							averaged				
Water Temperature (°C)	21.9	21.9	21.2	21.3	20.6	20.4	21.21	-			
Salinity (ppt)	18.3	18.6	22.7	21.4	24.2	27.4	22.09	-			
pH	8.0	8.0	7.9	8.0	7.9	7.8	7.91				
D.O. Saturation (%)	99.6	100.1	81.4	78.4	73.7	77.1	85.05	-			
D.O. (mg/L)	6.7	6.7	5.4	5.2	4.9	5.0	5.67	4.95			
Turbidity (NTU)	6.4	6.3	9.2	9.1	9.9	10.2	8.52	-			
SS (mg/L)	6.0	6.0	6.0	4.0	6.0	4.0	5.33	-			
Remarks		No dredging works was observed.									

Station			IV	IP			1					
Time (hh:mm)												
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 (°C)	21.0	21.2	-	-	20.2	20.2	20.66	-				
Salinity (ppt)	22.2	21.7	-	-	26.7	27.0	24.41	-				
pH	7.8	7.8	-	-	7.6	7.7	7.73					
D.O. Saturation (%)	83.3	85.3	-	-	69.5	74.6	78.18	-				
D.O. (mg/L)	5.6	5.7	-	-	4.6	4.9	5.17	4.72				
Turbidity (NTU)	7.9	7.7	-	-	9.8	9.5	8.73	-				
SS (mg/L)	8.0	8.0	-	-	9.0	7.0	8.00	-				
Remarks		No dredging works was observed.										

Compliance with Action and Limit Level														
Parameter	As in	EM&A	C2*130%		IMO1		IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	4.4	4.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	4.9	4.9	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.9	8.9	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	01/21/2009
Weather & Ambient Temperature	Cloudy, 18C

Station			C1 (
Time (hh:mm)			12:04	-12:07				
Water Depth (m)			10	6.2				
Monitoring Depth (m)	1	.0	8	3.1	15	5.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.1	21.1	20.2	19.8	18.8	18.8	19.96	-
Salinity (ppt)	26.1	26.1	28.8	29.7	32.0	32.0	29.12	-
pH	7.9	7.9	7.9	7.9	7.9	7.8	7.88	
D.O. Saturation (%)	87.2	86.5	72.1	71.0	68.2	69.5	75.75	-
D.O. (mg/L)	5.7	5.7	4.7	4.6	4.4	4.5	4.94	4.48
Turbidity (NTU)	5.2	5.3	6.5	6.4	9.1	9.3	6.97	-
SS (mg/L)	4.0	5.0	6.0	7.0	6.0	7.0	5.83	-
Remarks				was observed				

Station			C3 (NM6)								
Time (hh:mm)			10:47									
Water Depth (m)			7									
Monitoring Depth (m)	1	.0	3									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom				
Water Temperature (°C)	21.9	21.9	21.4	21.3	20.2	21.0	21.27	-				
Salinity (ppt)	19.1	19.2	22.2	22.5	28.6	26.2	22.94	-				
pH	7.9	7.9	7.9	7.9	7.8	7.8	7.89					
D.O. Saturation (%)	102.2	103.0	87.0	87.3	79.2	83.7	90.40	-				
D.O. (mg/L)	6.9	6.9	5.8	5.8	5.2	5.5	6.02	5.33				
Turbidity (NTU)	5.3	5.4	6.3	6.4	8.4	8.3	6.68	-				
SS (mg/L)	8.0	6.0	6.0	6.0	6.0	6.0	6.33	-				
Remarks		No dredging works was observed.										

Station			IM	01			Co-ordinate:	3
Time (hh:mm)			11:40		Northing	Easting		
Water Depth (m)			17	22.21.560	113.54.427			
Monitoring Depth (m)	1	.0	8					
Trial	Trial 1	Trial 2	Trial 1	Depth-averaged	Bottom			
Water Temperature (°C)	21.1	21.2	20.1	20.3	19.1	19.1	20.16	-
Salinity (ppt)	24.4	24.6	28.7	28.4	31.1	31.2	28.06	-
pH	7.9	7.9	7.9	7.9	7.8	7.9	7.85	
D.O. Saturation (%)	85.2	84.9	69.9	70.2	68.6	66.9	74.28	-
D.O. (mg/L)	5.6	5.6	4.5	4.6	4.5	4.3	4.85	4.40
Turbidity (NTU)	6.3	6.4	7.9	8.0	10.8	10.1	8.25	-
SS (mg/L)	5.0	6.0	6.0	6.0	6.00	-		
Remarks				No dred	dging works	was observe	d.	

Station			IIV	102			Co-ordinate	s			
Time (hh:mm)			11:51		Northing	Easting					
Water Depth (m)			1	22.21.320	113.54.822						
Monitoring Depth (m)	1	.0	5								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	21.4	21.4	20.3	20.4	19.3	19.3	20.33	-			
Salinity (ppt)	24.4	24.3	28.1	27.7	31.3	31.2	27.85	-			
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.90				
D.O. Saturation (%)	88.4	89.6	72.1	72.5	67.2	66.5	76.05	-			
D.O. (mg/L)	5.8	5.9	4.7	4.7	4.4	4.3	4.97	4.33			
Turbidity (NTU)	6.4	6.4	7.8	7.5	9.5	9.2	7.80	-			
SS (mg/L)	5.0	5.0	7.0	5.0	6.00	-					
		No dredging works was observed.									

Station			MF							
Time (hh:mm)			11:13							
Water Depth (m)			8	3.8						
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 (°C)	21.7	21.7	20.3	20.3	20.0	20.0	20.66	-		
Salinity (ppt)	18.5	18.9	27.0	26.8	28.9	28.7	24.80	-		
pH	7.9	7.9	7.8	7.8	7.8	7.8	7.84			
D.O. Saturation (%)	87.5	89.5	69.9	71.2	72.7	74.1	77.48	-		
D.O. (mg/L)	5.9	6.0	4.6	4.7	4.7	4.8	5.12	4.79		
Turbidity (NTU)	5.7	5.7	7.1	7.3	8.3	8.1	7.03	-		
SS (mg/L)	4.0	5.0	8.0	7.0	6.0	6.0	6.00	-		
Remarks		No dredging works was observed.								

Station			MF	PB2							
Time (hh:mm)			11:04								
Water Depth (m)			9	.6							
Monitoring Depth (m)	1	.0	4	.8	8	.6					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.9	22.0	21.4	21.2	20.3	20.3	21.20	-			
Salinity (ppt)	17.9	17.8	21.4	23.1	27.5	27.8	22.58	-			
pH	8.0	8.0	8.0	7.9	7.8	7.8	7.90				
D.O. Saturation (%)	95.2	96.1	83.0	82.2	75.8	75.4	84.62	-			
D.O. (mg/L)	6.4	6.5	5.5	5.4	5.0	4.9	5.63	4.94			
Turbidity (NTU)	6.2	6.2	9.3	9.1	10.2	10.6	8.60	-			
SS (mg/L)	5.0	5.0	6.0	7.0	8.0	6.0	6.17	-			
Remarks		No dredging works was observed.									

Station												
Time (hh:mm)			11:23									
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 (°C)	21.1	21.2	-	-	20.2	20.2	20.67	-				
Salinity (ppt)	22.3	21.8	-	-	27.3	27.1	24.63	-				
pH	7.8	7.8	-	-	7.7	7.7	7.76					
D.O. Saturation (%)	81.4	81.7	-	-	70.1	72.5	76.43	-				
D.O. (mg/L)	5.4	5.4	-	-	4.6	4.8	5.05	4.67				
Turbidity (NTU)	7.6	7.5	-	-	9.4	9.6	8.53	-				
SS (mg/L)	6.0	5.0	-	-	5.0	4.0	5.00	-				
Remarks		No dredging works was observed.										

Compliance with Action an	d Limit Lev	el												
Parameter	As in	EM&A	Mean(C1-	-C3)*130%	IM	101	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	4.9	4.9	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	8.9	8.9	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	7.9	7.9	N	Ν	N	N	N	N	N	N	N	N

Sampling Date	01/22/09
Weather & Ambient Temperature	Fine, 16C

Station			C2 (NM5)			1					
Time (hh:mm)			23:05	-23:07								
Water Depth (m)			2	1.0								
Monitoring Depth (m)	1	.0	10	0.5	20	0.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom				
Water Temperature (°C)	17.4	17.4	17.2	17.2	17.1	17.2	17.26	-				
Salinity (ppt)	33.9	35.1	35.6	35.1	35.4	35.0	35.01	-				
pH	7.9	7.9	7.9	7.8	7.8	7.8	7.86					
D.O. Saturation (%)	99.8	96.9	91.3	89.3	91.9	94.1	93.88	-				
D.O. (mg/L)	7.8	7.5	7.1	7.0	7.2	7.3	7.31	7.25				
Turbidity (NTU)	3.5	3.7	4.7	4.9	5.1	5.3	4.53	-				
SS (mg/L)	4.0	6.0	4.0	3.0	5.0	4.0	4.33					
Remarks		Dredging works was observed.										

Station			IM	01			Co-ord	dinates			
Time (hh:mm)				Northing	Easting						
Water Depth (m)			10	3.7			22.20.791	113.53.644			
Monitoring Depth (m)	1	.0	6	.9	12	2.7		3			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	17.4	17.4	17.26	-							
Salinity (ppt)	33.8	34.2	34.4	36.0	34.6	34.4	34.54	-			
pH	7.9	7.9	7.9	7.9	7.9	7.9	7.88				
D.O. Saturation (%)	96.7	93.7	92.0	93.6	94.0	96.0	94.33	-			
D.O. (mg/L)	7.6	7.3	7.2	7.3	7.4	7.51	7.36	7.43			
Turbidity (NTU)	3.9	3.7	4.3	4.3	4.7	4.6	4.25	-			
SS (mg/L)	5.0	5.0 5.0 4.0 6.0 6.0 5.33 -									
Remarks			D	redging wor	ks was obse	rved.					

Station			IM	02			Co-ord	dinates
Time (hh:mm)			23:32	-23:33			Northing	Easting
Water Depth (m)			22.21.510	113.54.436				
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	17.5	17.3	17.2	17.2	17.2	17.2	17.27	-
Salinity (ppt)	33.8	33.9	35.2	35.1	34.5	35.2	34.61	-
pH	7.9	7.9	7.8	7.8	7.8	7.8	7.85	
D.O. Saturation (%)	96.2	90.5	89.9	91.5	95.2	95.9	93.20	-
D.O. (mg/L)	7.5	7.1	7.0	7.1	7.4	7.46	7.27	7.45
Turbidity (NTU)	4.3	4.5	5.0	4.8	5.3	5.3	4.87	-
SS (mg/L)	4.0	5.0	5.0	5.0	4.0	5.0	4.67	-
Remarks		•	D	redging wor	ks was obse	rved.	•	•

Mid-Ebb

Station			MF	PB1				
Time (hh:mm)			22:27	-22:28				
Water Depth (m)			8	.3				
Monitoring Depth (m)	1	.0	4	.2	7	.3		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	17.4	17.5	17.3	17.3	17.3	17.2	17.33	-
Salinity (ppt)	34.8	34.4	35.0	35.0	35.1	35.7	34.99	-
pH	8.0	8.0	8.0	7.9	7.9	7.9	7.94	
D.O. Saturation (%)	95.2	101.7	99.2	92.8	96.0	97.2	97.02	-
D.O. (mg/L)	7.4	7.9	7.7	7.2	7.5	7.5	7.55	7.51
Turbidity (NTU)	3.5	3.4	3.6	3.6	4.2	4.1	3.73	-
SS (mg/L)	6.0	4.0	4.0	5.00	-			
Remarks			D	redging worl	ks was obse	rved.	-	•

Station			MF	PB2			1	
Time (hh:mm)			22:18	-22:20				
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-	Bottom
							averaged	
Water Temperature (°C)	17.5	17.5	17.5	17.3	17.2	17.2	17.36	-
Salinity (ppt)	34.6	34.7	34.6	35.0	35.9	35.9	35.12	-
pH	8.0	8.0	8.0	8.0	7.9	7.9	7.97	
D.O. Saturation (%)	103.5	101.3	98.8	94.1	94.2	96.5	98.07	-
D.O. (mg/L)	8.0	7.9	7.7	7.3	7.3	7.5	7.62	7.39
Turbidity (NTU)	3.5	3.5	3.7	3.9	4.3	4.4	3.88	-
SS (mg/L)	6.0	8.0	4.0	5.0	4.0	5.0	5.33	-
Remarks			D	redging wor	ks was obse	rved.		

Station			IV	P				
Time (hh:mm)			22:38	-22:38				
Water Depth (m)			5	.7				
Monitoring Depth (m)	1	.0	2	.9	4	.7		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom
Water Temperature (°C)	17.4	17.4	-	-	17.4	17.3	17.38	-
Salinity (ppt)	34.6	33.9	-	-	34.6	34.5	34.39	
pH	7.9	7.9	-	-	7.9	7.9	7.92	
D.O. Saturation (%)	101.5	104.5	-	-	102.3	102.8	102.78	
D.O. (mg/L)	7.9	8.2	-	-	8.0	8.0	8.02	8.00
Turbidity (NTU)	3.4	3.3	-	-	3.4	3.3	3.35	-
SS (mg/L)	5.0	5.0	-	-	5.0	4.0	4.75	-
Remarks		-	D	redging wor	ks was obse	rved.		

Compliance with Action and Limit Level

Compliance with Action at	ia Limit Lev	<u>'eı</u>												
Parameter	As in	EM&A	C2*1	30%	IMO1		IM	IMO2		MPB1	MF	MPB2		/IP
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.2	7.2	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.3	7.3	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.9	5.9	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	5.6	5.6	N	N	N	N	N	N	N	N	N	N

Sampling Date	01/22/09
Weather & Ambient Temperature	Sunny, 16C

Station			C1 (NM3)				
Time (hh:mm)			11:10					
Water Depth (m)			17	7.4				
Monitoring Depth (m)	1	.0	8	.7	10	6.4		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.5	17.5	17.2	17.2	17.2	17.2	17.30	-
Salinity (ppt)	34.0	34.1	36.7	36.3	37.1	36.9	35.86	-
pH	8.1	8.2	8.1	8.1	8.1	8.1	8.10	
D.O. Saturation (%)	100.0	99.2	85.5	87.4	88.7	87.8	91.43	-
D.O. (mg/L)	7.8	7.7	6.6	6.8	6.8	6.8	7.08	6.80
Turbidity (NTU)	4.4	4.2	5.0	5.2	7.2	7.5	5.58	-
SS (mg/L)	4.0	3.0	5.0	4.0	6.0	4.0	4.33	-
Remarks				Dredo	jing works w	as observed.		

Station			C3 (NM6)				
Time (hh:mm)			12:40	-12:41				
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 (°C)	17.6	17.5	17.5	17.4	17.3	17.3	17.42	-
Salinity (ppt)	32.8	33.0	33.1	33.4	35.1	35.6	33.81	-
pH	8.1	8.1	8.1	8.1	8.1	8.1	8.09	
D.O. Saturation (%)	108.7	107.4	106.0	104.4	102.9	104.0	105.57	-
D.O. (mg/L)	8.5	8.4	8.3	8.2	8.0	8.1	8.26	8.04
Turbidity (NTU)	3.6	3.7	3.7	3.7	3.7	3.7	3.68	-
SS (mg/L)	4.0	4.0	4.0	5.0	5.0	5.0	4.50	-
Remarks				Dredo	jing works w	as observed.		

Station			IM	01			Co-ordinate	s
Time (hh:mm)			11:23	-11:25			Northing	Easting
Water Depth (m)			14	22.21.560	113.54.427			
Monitoring Depth (m)	1	.0	7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.5	17.6	17.3	17.3	17.2	17.2	17.34	-
Salinity (ppt)	34.0	33.7	35.6	35.3	36.7	36.3	35.25	-
pH	8.1	8.1	8.1	8.1	8.1	8.0	8.09	
D.O. Saturation (%)	101.2	102.3	87.9	88.1	87.5	88.1	92.52	-
D.O. (mg/L)	7.9	8.0	6.8	6.8	6.8	6.8	7.18	6.78
Turbidity (NTU)	4.5	4.8	7.2	7.6	8.2	7.9	6.70	-
SS (mg/L)	5.0	5.0	6.0	4.0	4.0	5.00	-	
Remarks				Dredg	ging works w	as observed.		

Station			IM	02			Co-ordinate	S
Time (hh:mm)			11:31	-11:33			Northing	Easting
Water Depth (m)			14		22.21.320	113.54.822		
Monitoring Depth (m)	1	.0	7					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.6	17.6	17.3	17.2	17.2	17.2	17.34	-
Salinity (ppt)	33.6	33.5	35.5	35.6	36.4	36.7	35.22	-
pH	8.1	8.1	8.1	8.1	8.0	8.0	8.06	
D.O. Saturation (%)	102.5	102.6	87.6	86.3	87.1	86.5	92.10	-
D.O. (mg/L)	8.0	8.0	6.8	6.7	6.7	6.7	7.15	6.71
Turbidity (NTU)	4.3	4.1	5.5	5.3	6.3	6.1	5.27	-
SS (mg/L)	5.0	4.0	6.0	5.0	4.83	-		
Remarks				Dredg	jing works w	as observed.		

Station			MF	PB1						
Time (hh:mm)			12:06							
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 (°C)	17.5	17.5	17.5	17.4	17.3	17.2	17.42	-		
Salinity (ppt)	33.2	33.2	33.3	33.4	34.7	35.3	33.87	-		
pH	8.1	8.1	8.1	8.1	8.0	8.0	8.07			
D.O. Saturation (%)	106.1	107.9	104.8	101.5	102.2	102.2	104.12	-		
D.O. (mg/L)	8.3	8.5	8.2	8.0	8.0	8.0	8.14	7.96		
Turbidity (NTU)	4.0	4.1	4.0	4.1	3.9	3.8	3.98	-		
SS (mg/L)	5.0	4.0	6.0	5.0	5.0	5.0	5.00	-		
Remarks		Dredging works was observed.								

Station			MF	B2						
Time (hh:mm)			12:14							
Water Depth (m)			8	.3						
Monitoring Depth (m)	1	.0	4	.2	7	.3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom		
Water Temperature (°C)	17.5	17.5	17.5	17.5	17.3	17.3	17.42	-		
Salinity (ppt)	33.1	33.0	33.88	-						
pH	8.1	8.1	8.1	8.1	8.0	8.0	8.06			
D.O. Saturation (%)	106.6	108.1	104.9	103.5	101.9	102.8	104.63	-		
D.O. (mg/L)	8.4	8.5	8.2	8.1	7.9	8.0	8.17	7.97		
Turbidity (NTU)	3.8	3.9	3.9	3.8	4.9	4.8	4.18	-		
SS (mg/L)	5.0	4.0	6.0	5.0	6.0	5.0	5.17	-		
Remarks		Dredging works was observed.								

Station			IV	IP					
Time (hh:mm)			11:55	-11:56					
Water Depth (m)			5						
Monitoring Depth (m)	1.	.0	2						
Trial	Trial 1	Trial 2	Depth-averaged	Bottom					
Water Temperature (°C)	17.5	17.5	-	-	17.4	17.4	17.46	-	
Salinity (ppt)	33.4 33.4 33.6						33.40	-	
pH	8.1	8.1	-	-	8.1	8.1	8.09		
D.O. Saturation (%)	105.8	105.4	-	-	106.7	105.8	105.93	-	
D.O. (mg/L)	8.3	8.2	-	-	8.4	8.3	8.30	8.33	
Turbidity (NTU)	4.4	4.2	-	-	4.8	4.9	4.58	-	
SS (mg/L)	4.0	4.0	-	4.0	3.75	-			
Remarks	Dredging works was observed.								

Compliance with Action an	<u>d Limit Lev</u>	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	Mean(C1+C3)*130%		101	IMO2			MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	Level
DO (Bottom)	3.3	2.5	7.4	7.4	N	N	N	N	N	N	N	N	N	N
DO (Depth-averaged)	4.2	4.0	7.7	7.7	N	N	N	N	N	N	Z	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	6.0	6.0	N	N	N	N	N	N	Z	N	N	N
SS (Depth-averaged)	24.0	37.0	5.7	5.7	N	N	N	N	N	N	N	N	N	N

Sampling Date	1/23/2009
Weather & Ambient Temperature	Cloudy, 20C

Station			C2 (NM5)			1					
Time (hh:mm)			12:39	-12:41								
Water Depth (m)												
Monitoring Depth (m)	1	.0										
Trial	Trial 1	Trial 2	Trial 2	Depth- averaged	Bottom							
Water Temperature (°C)	21.5	21.6	21.1	21.1	20.8	20.8	21.14	-				
Salinity (ppt)	28.1	28.0	30.3	30.2	31.7	31.7	29.99	-				
pH	7.5	7.5	7.5	7.6	7.5	7.6	7.54					
D.O. Saturation (%)	84.2	83.8	78.3	77.8	76.1	77.1	79.55	-				
D.O. (mg/L)	5.6	5.6	5.2	5.2	5.0	5.1	5.28	5.07				
Turbidity (NTU)	5.0	5.1	7.2	6.8	10.4	10.2	7.45	-				
SS (mg/L)	5.0	5.0	7.0	6.00	-							
Remarks		No dredging works was observed.										

Station			IM	IO1			Co-ore	dinates			
Time (hh:mm)				Northing	Easting						
Water Depth (m)			22.21.962	113.55.090							
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom			
Water Temperature (°C)	21.3	21.3	21.2	21.2	20.9	20.9	21.13	-			
Salinity (ppt)	22.9	22.9	29.4	29.4	30.5	30.4	27.59	-			
pH	7.5	7.5	7.5	7.6	7.5	7.6	7.53				
D.O. Saturation (%)	80.7	81.4	75.2	74.9	75.2	74.5	76.98	-			
D.O. (mg/L)	5.6	5.6	5.0	5.0	5.0	4.95	5.19	4.98			
Turbidity (NTU)	5.9	5.9	7.9	8.1	11.3	11.1	8.37	-			
SS (mg/L)	6.0	8.0	7.0	9.0	5.0	7.0	7.00	-			
Remarks		No dredging works was observed.									

Station			IM	02			Co-ord	dinates			
Time (hh:mm)			11:27	-11:29			Northing	Easting			
Water Depth (m)			15	5.2			22.21.669	113.55.567			
Monitoring Depth (m)	1	.0									
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom			
							averaged				
Water Temperature (°C)	21.4	21.5	21.2	21.3	20.9	20.9	21.20	-			
Salinity (ppt)	24.6	24.6	29.5	29.4	31.1	30.8	28.33	-			
pH	7.5	7.5	7.6	7.6	7.6	7.6	7.55				
D.O. Saturation (%)	77.4	82.3	76.6	77.2	77.1	75.7	77.72	-			
D.O. (mg/L)	5.7	5.6	5.1	5.1	5.1	5.03	5.29	5.07			
Turbidity (NTU)	5.8	5.9	6.8	7.0	8.6	8.5	7.10	-			
SS (mg/L)	6.0	6.0	6.0	5.83	-						
Remarks		No dredging works was observed.									

Mid-Ebb

Station			MF	PB1			1	
Time (hh:mm)			12:11	-12:13				
Water Depth (m)								
Monitoring Depth (m)	1	.0						
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-	Bottom
							averaged	
Water Temperature (°C)	21.4	21.4	21.1	21.1	21.1	21.1	21.17	•
Salinity (ppt)	20.5	20.5	26.1	26.5	28.6	27.9	25.02	-
pH	7.5	7.4	7.4	7.5	7.5	7.4	7.45	
D.O. Saturation (%)	82.4	81.7	75.6	75.8	77.0	76.5	78.17	-
D.O. (mg/L)	5.8	5.7	5.1	5.1	5.2	5.2	5.34	5.16
Turbidity (NTU)	4.9	5.1	5.4	5.5	5.7	5.8	5.40	-
SS (mg/L)	6.0	4.0	5.00	-				
Remarks			No	dredging wo	orks was obs	erved.		

Station			MF	PB2						
Time (hh:mm)			12:00	-12:04						
Water Depth (m)										
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	21.4	21.5	21.3	21.4	21.2	21.3	21.35	-		
Salinity (ppt)	18.4	20.6	24.6	27.1	28.9	28.2	24.63	-		
pH	7.6	7.5	7.6	7.6	7.6	7.6	7.56			
D.O. Saturation (%)	83.7	84.2	78.4	79.4	78.7	77.9	80.38	-		
D.O. (mg/L)	5.9	5.9	5.4	5.3	5.3	5.2	5.48	5.23		
Turbidity (NTU)	5.7	5.9	6.6	6.7	7.2	7.4	6.58	-		
SS (mg/L)	8.0	7.0	7.0	7.17	-					
Remarks	No dredging works was observed.									

Station			IV	IP						
Time (hh:mm)			12:22	-12:23						
Water Depth (m)										
Monitoring Depth (m)	1	.0								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth- averaged	Bottom		
Water Temperature (°C)	21.3	21.2			21.1	21.0	21.13	-		
Salinity (ppt)	20.3	20.8			26.5	25.3	23.19	-		
pH	7.4	7.5			7.4	7.4	7.43			
D.O. Saturation (%)	81.1	79.9			77.7	77.4	79.03	-		
D.O. (mg/L)	5.7	5.6			5.3	5.3	5.46	5.28		
Turbidity (NTU)	9.1	9.2			9.5	9.5	9.33	-		
SS (mg/L)	4.0	4.0	5.0	5.00	-					
Remarks	No dredging works was observed.									

Compliance with Action ar	<u>ıd Limit Lev</u>	<u>/el</u>												
Parameter	As in	EM&A	C2*130%		IM	IMO1		IMO2		MPB1	MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedanc	Exceedanc	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	e of Action	e of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level	Level	Level	Level		Action	Level	Action	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	5.3	5.3	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	9.7	9.7	N	N	N	N	N	N	N	N	N	N
SS (Depth-averaged)	24.0	37.0	7.8	7.8	N	N	N	N	N	N	N	N	N	N

Station			C1 (NM3)							
Time (hh:mm)			15:06								
Water Depth (m)			16								
Monitoring Depth (m)	1	.0	8								
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	22.1	22.1	21.7	21.6	21.4	21.4	21.71	-			
Salinity (ppt)	28.2	28.2	29.9	30.2	31.4	31.5	29.88	-			
pH	7.5	7.5	7.6	7.6	7.6	7.5	7.54				
D.O. Saturation (%)	84.1	84.7	78.5	79.0	77.6	78.9	80.47	-			
D.O. (mg/L)	5.6	5.7	5.2	5.3	5.2	5.2	5.36	5.19			
Turbidity (NTU)	4.8	5.0	7.2	7.2	8.7	9.1	7.00	-			
SS (mg/L)	4.0	5.0	7.0	5.0	7.0	6.0	5.67	-			
Remarks		No dredging works was observed.									

Station			C3 (NM6)					
Time (hh:mm)			13:55						
Water Depth (m)			6						
Monitoring Depth (m)	1	.0	3						
Trial	Trial 1	Trial 2	Trial 1	Depth-averaged	Bottom				
Water Temperature (°C)	22.0	21.9	21.9	21.9	21.7	21.9	21.87	-	
Salinity (ppt)	18.7	19.0	24.7	24.5	29.0	28.5	24.05	-	
pH	7.5	7.5	7.5	7.5	7.6	7.6	7.54		
D.O. Saturation (%)	84.9	85.0	81.4	80.7	78.9	81.3	82.03	-	
D.O. (mg/L)	6.0	6.0	5.6	5.5	5.3	5.4	5.62	5.35	
Turbidity (NTU)	5.7	5.6	5.8	5.8	6.6	6.7	6.03	-	
SS (mg/L)	7.0	5.0	6.0	6.0	6.0	6.0	6.00	-	
Remarks	No dredging works was observed.								

Station			IM	101			Co-ordinates	3
Time (hh:mm)			14:20		Northing	Easting		
Water Depth (m)			11		22.21.966	113.55.082		
Monitoring Depth (m)	1	.0	5	i.6	10	0.2		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	21.9	22.0	21.8	21.8	21.5	21.5	21.75	-
Salinity (ppt)	24.0	24.1	29.4	29.4	30.3	30.4	27.92	-
pH	7.5	7.5	7.6	7.6	7.5	7.6	7.54	
D.O. Saturation (%)	80.9	79.9	75.2	75.2	75.0	74.9	76.85	-
D.O. (mg/L)	5.5	5.5	5.0	5.0	5.0	5.0	5.17	4.99
Turbidity (NTU)	5.5	5.8	7.1	7.0	8.8	8.7	7.15	-
SS (mg/L)	5.0	6.0	7.0	6.0	4.0	5.67	-	
Remarks				No dred	dging works	was observe	d.	

Station			IM	02			Co-ordinates	
Time (hh:mm)			14:09		Northing	Easting		
Water Depth (m)			15	22.21.631	113.55.570			
Monitoring Depth (m)	1	.0	7	.8	14	4.6		
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	22.0	22.0	21.8	21.8	21.5	21.5	21.78	-
Salinity (ppt)	23.8	24.3	29.4	7.6	30.8	31.1	28.10	-
pH	7.4	7.5	7.5	7.6	7.5	7.6	7.51	
D.O. Saturation (%)	84.1	83.6	76.5	76.2	75.7	75.7	78.63	-
D.O. (mg/L)	5.8	5.7	5.1	5.1	5.0	5.0	5.28	5.02
Turbidity (NTU)	6.0	5.9	7.1	7.37	-			
SS (mg/L)	6.0	5.0	7.0	6.0	5.83	-		
Remarks		,		No dred	dging works	was observe	d.	•

Mid-Flood

Station			MF	PB1				
Time (hh:mm)			14:42					
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 (°C)	21.9	21.9	21.7	21.7	21.7	21.7	21.75	-
Salinity (ppt)	19.5	18.8	26.4	26.1	29.9	29.5	25.03	-
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.50	
D.O. Saturation (%)	81.4	80.6	76.7	76.9	77.7	77.8	78.52	-
D.O. (mg/L)	5.7	5.7	5.2	5.2	5.2	5.2	5.36	5.18
Turbidity (NTU)	5.9	5.8	6.7	6.7	7.2	6.9	6.53	-
SS (mg/L)	7.0	5.0	4.0	4.0	5.17	-		
Remarks		•	•	No dredgi	ng works wa	s observed.		

Station			MF	B2				
Time (hh:mm)			14:54					
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 (°C)	22.0	22.0	21.9	21.9	21.8	21.8	21.89	-
Salinity (ppt)	17.6	17.5	25.1	26.4	29.0	29.2	24.12	-
pH	7.5	7.5	7.6	7.5	7.6	7.6	7.54	
D.O. Saturation (%)	83.0	83.0	79.6	79.6	78.8	78.5	80.42	-
D.O. (mg/L)	5.9	5.9	5.4	5.4	5.3	5.2	5.51	5.25
Turbidity (NTU)	6.0	6.0	6.6	6.60	-			
SS (mg/L)	7.0	5.0	5.0	7.0	5.50	-		
Remarks				No dredgi	ng works wa	s observed.		

Station											
Time (hh:mm)											
Water Depth (m)			5	.5							
Monitoring Depth (m)	1	.0	2	.8	4	.5					
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom			
Water Temperature (°C)	21.7	21.8			21.6	21.6	21.68	-			
Salinity (ppt)	21.2	20.7			26.5	26.8	23.81	-			
pH	7.4	7.5			7.4	7.4	7.44				
D.O. Saturation (%)	79.4	79.2			76.3	75.9	77.70	-			
D.O. (mg/L)	5.5	5.5			5.2	5.1	5.35	5.16			
Turbidity (NTU)	5.8	5.9			6.3	6.1	6.03	-			
SS (mg/L)	7.0	6.0			8.0	6.0	6.75	-			
Remarks	No dredging works was observed.										

Compliance	with	Action	and	Limit	l evel

Compliance with Action an	id Limit Leve	<u>el</u>												
Parameter	As in	EM&A	Mean(C1-	+C3)*130%	IM	101	IMO2		MPB1		MPB2		MP	
	Action	Limit	Action	Limit	Exceedan	Exceedan	Exceedance of Action	Exceedance	Exceedanc	Exceedance of Limit Level	Exceedan	Exceedan	Exceedan	Exceedan
	Level	Level	Level	Level	ce of	ce of Limit	Level	of Limit	e of Action		ce of	ce of Limit	ce of	ce of Limit
					Action	Level		Level	Level		Action	Level	Action	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	5.5	5.5	N	N	N	N	N	N	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	8.5	8.5	N	N	N	N	N	N	Ν	N	N	N
SS (Depth-averaged)	24.0	37.0	7.6	7.6	N	N	N	N	N	N	N	N	N	N

Annex H

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

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

: +852 2610 2021

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 7

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0819965

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : --- Date Samples Received : 10-JAN-2009

FACILITY

: +852 2723 5660

Order number : ---- Issue Date : 03-FEB-2009

C-O-C number ; ---- No. of samples received ; 18

: --- No. of samples analysed : 18

General Comments

Address

E-mail

Facsimile

Site

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: 21-JAN-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: **HK0819965**

Sample(s) were collected by ALS Technichem (HK) staff on 10 January, 2009.

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

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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

ALS Laboratory Group
Trading Name: ALS Technichem (HK) Pty Ltd

Page Number : 2 of 7

Client : ERM HONG KONG

Work Order HK0819965



Analytical Results

Sub-Matrix: MARINE WATER		Client sample ID			MPB1 ME DUP	MPB2 ME	MPB2 ME DUP	MP ME
	Cli	ent samplin	g date / time	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]
Compound	CAS Number	LOR	Unit	HK0819965-001	HK0819965-002	HK0819965-003	HK0819965-004	HK0819965-005
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
P-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 Organ	ochlorine Pesticides Surrog	ate					Surrogate control lim	its listed at end of this re
Decachlorobiphenyl	2051-24-3	0.1	%	82.0	90.5	84.0	78.7	81.6

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Client : ERM HONG KONG



Sub-Matrix: MARINE WATER		Clie	ent sample ID	MP ME DUP	C2 (NM5) ME	C2 (NM5) ME DUP	MPB1 MF	MPB1 MF DUP
	Clie	ent samplir	ng date / time	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]
Compound	CAS Number	LOR	Unit	HK0819965-006	HK0819965-007	HK0819965-008	HK0819965-009	HK0819965-010
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 Organo	chlorine Pesticides Surrog	ate					Surrogate control lin	mits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%	84.3	80.2	69.5	84.4	85.2

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Client : ERM HONG KONG



Sub-Matrix: MARINE WATER		Clie	nt sample ID	MPB2 MF	MPB2 MF DUP	MP MF	MP MF DUP	C1 (NM3) MF
	Clie	ent samplin	g date / time	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]
Compound	CAS Number	LOR	Unit	HK0819965-011	HK0819965-012	HK0819965-013	HK0819965-014	HK0819965-015
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 Organo	chlorine Pesticides Surrog	ate					Surrogate control lim	its listed at end of this rep
Decachlorobiphenyl	2051-24-3	0.1	%	91.2	83.1	86.6	91.3	90.3

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Client : ERM HONG KONG



Sub-Matrix: MARINE WATER	Client sample ID			C1 (NM3) MF DUP	C3 (NM6) MF	C3 (NM6) MF DUP		
	Clie	ent samplin	g date / time	[10-JAN-2009]	[10-JAN-2009]	[10-JAN-2009]		
Compound	CAS Number	LOR	Unit	HK0819965-016	HK0819965-017	HK0819965-018		
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	1							
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 Organochlorin	ne Pesticides Surrog	ate					Surrogate control lin	nits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%	87.1	85.0	90.9		

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Client : ERM HONG KONG

Work Order HK0819965



Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
P-065A: PCB Sing	le Congeners (QC Lot:	862059)				·	-				
HK0819965-001	MPB1 ME	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			
P-065B: Organoch	Iorine Pesticides (QC	Lot: 862059)									
HK0819965-001	MPB1 ME	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 Blank (MB) Report				Laboratory Control	Spike (LCS) and Labo	oratory Control	Spike Duplicat	te (DCS) Report	
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentratio	LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot: 862059)				n						
PCB 8	34883-43-7	0.01	μg/L	<0.01	100 μg/L	106		50	130		
PCB 18	37680-65-2	0.01	μg/L	<0.01	100 μg/L	100		50	130		
PCB 28	7012-37-5	0.01	μg/L	<0.01	100 μg/L	76.4		50	130		
PCB 52	35693-99-3	0.01	μg/L	<0.01	100 μg/L	77.2		50	130		
PCB 44	41464-39-5	0.01	μg/L	<0.01	100 μg/L	72.7		50	130		
PCB 66	32598-10-0	0.01	μg/L	<0.01	100 μg/L	71.2		50	130		
PCB 101	37680-73-2	0.01	μg/L	<0.01	100 μg/L	88.8		50	130		
PCB 77	32598-13-3	0.01	μg/L	<0.01	100 μg/L	90.2		50	130		
PCB 149	38380-04-0	0.01	μg/L	<0.01	100 μg/L	94.0		50	130		

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Client : ERM HONG KONG

Work Order HK0819965



Matrix: WATER	Matrix: WATER Method Blank) Report	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentratio	LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot: 8620	059) - Continue	ed			n						
PCB 118	31508-00-6	0.01	μg/L	<0.01	100 μg/L	98.0		50	130		
PCB 153	35065-27-1	0.01	μg/L	<0.01	100 μg/L	93.7		50	130		
PCB 105	32598-14-4	0.01	μg/L	<0.01	100 μg/L	90.6		50	130		
PCB 126	57465-28-8	0.01	μg/L	<0.01	100 μg/L	94.6		50	130		
PCB 187	52663-68-0	0.01	μg/L	<0.01	100 μg/L	97.5		50	130		
PCB 128	38380-07-3	0.01	μg/L	<0.01	100 μg/L	97.1		50	130		
PCB 156	38380-08-4	0.01	μg/L	<0.01	100 μg/L	104		50	130		
PCB 180	35065-29-3	0.01	μg/L	<0.01	100 μg/L	108		50	130		
PCB 169	60044-26-0	0.01	μg/L	<0.01	100 μg/L	80.2		50	130		
PCB 170	35065-30-6	0.01	μg/L	<0.01	100 μg/L	90.1		50	130		
PCB 195	52663-78-2	0.01	μg/L	<0.01	100 μg/L	117		50	130		
EP-065B: Organochlorine Pesticides (QC Lot:	862059)										
4.4`-DDT	50-29-3	0.01	μg/L	<0.01	25 μg/L	# Not Determined		50	130		
4.4`-DDE	72-55-9	0.01	μg/L	<0.01	25 μg/L	# Not Determined		50	130		
4.4`-DDD	72-54-8	0.01	μg/L	<0.01	25 μg/L	# Not Determined		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: MARINE WATER	Recovery Limits (%)									
Compound	Low	High								
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate										
Decachlorobiphenyl	2051-24-3	50	130							

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES



CERTIFICATE OF ANALYSIS

Client : ERM HONG KONG Laboratory : ALS Technichem HK Pty Ltd Page : 1 of 7

Contact : MS KAREN LUI Contact : Wong Wai Man, Alice Work Order : HK0823738

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Project : EM&A FOR THE PERMANENT AVIATION FUEL Quote number : ---- Date Samples Received : 24-DEC-2008

FACILITY

Order number : ---- Issue Date : 22-JAN-2009

C-O-C number : --- No. of samples received : 18
Site : --- No. of samples analysed : 18

General Comments

Address

E-mail

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:

12-JAN-2009

Key: LOR = Limit of reporting; CAS Number = Chemistry Abstract Services number

Specific comments for Work Order: HK0823738

Sample(s) were collected by ALS Technichem (HK) staff on 24 December, 2008.

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

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 Signatories
 Position
 Authorised results for

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Client : ERM HONG KONG

Work Order HK0823738



Analytical Results

Sub-Matrix: MARINE WATER		Client sample ID			MPB1 ME DUP	MPB2 ME	MPB2 ME DUP	MP ME
	Cli	ent samplin	g date / time	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]
Compound	CAS Number	LOR	Unit	HK0823738-001	HK0823738-002	HK0823738-003	HK0823738-004	HK0823738-005
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
P-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 Organ	ochlorine Pesticides Surrog	ate				,	Surrogate control lim	its listed at end of this re
Decachlorobiphenyl	2051-24-3	0.1	%	69.4	66.8	66.5	67.2	64.5

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Client : ERM HONG KONG



Sub-Matrix: MARINE WATER		Clie	nt sample ID	MP ME DUP	C2 (NM5) ME	C2 (NM5) ME DUP	MPB1 MF	MPB1 MF DUP
	Clie	ent samplin	g date / time	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]
Compound	CAS Number	LOR	Unit	HK0823738-006	HK0823738-007	HK0823738-008	HK0823738-009	HK0823738-010
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 Organo	chlorine Pesticides Surrog	ate					Surrogate control lin	nits listed at end of this rep
Decachlorobiphenyl	2051-24-3	0.1	%	67.2	62.0	63.6	62.9	73.6

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Sub-Matrix: MARINE WATER		Clie	nt sample ID	MPB2 MF	MPB2 MF DUP	MP MF	MP MF DUP	C1 (NM3) MF
	Clie	ent samplin	g date / time	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]
Compound	CAS Number	LOR	Unit	HK0823738-011	HK0823738-012	HK0823738-013	HK0823738-014	HK0823738-015
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 Organ	ochlorine Pesticides Surrog	ate					Surrogate control lin	nits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%	69.0	62.7	64.2	66.4	61.4

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Sub-Matrix: MARINE WATER		Clie	ent sample ID	C1 (NM3) MF DUP	C3 (NM6) MF	C3 (NM6) MF DUP		
	Clie	ent samplir	ng date / time	[24-DEC-2008]	[24-DEC-2008]	[24-DEC-2008]		
Compound	CAS Number	LOR	Unit	HK0823738-016	HK0823738-017	HK0823738-018		
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 Organochic	orine Pesticides Surrog	ate			•		Surrogate control li	mits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%	67.6	70.7	69.4		

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Laboratory Duplicate (DUP) Report

Matrix: WATER				Laboratory Duplicate (DUP) Report							
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)			
P-065A: PCB Sing	le Congeners (QC Lot:	855620)				·	-				
HK0823738-001	MPB1 ME	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			
P-065B: Organoch	Iorine Pesticides (QC	Lot: 855620)									
HK0823738-001	MPB1 ME	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 Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentratio	LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot	EP-065A: PCB Single Congeners (QC Lot: 855620)										
PCB 8	34883-43-7	0.01	μg/L	<0.01	100 μg/L	68.6		50	130		
PCB 18	37680-65-2	0.01	μg/L	<0.01	100 μg/L	70.1		50	130		
PCB 28	7012-37-5	0.01	μg/L	<0.01	100 μg/L	72.5		50	130		
PCB 52	35693-99-3	0.01	μg/L	<0.01	100 μg/L	73.8		50	130		
PCB 44	41464-39-5	0.01	μg/L	<0.01	100 μg/L	74.5		50	130		
PCB 66	32598-10-0	0.01	μg/L	<0.01	100 μg/L	74.4		50	130		
PCB 101	37680-73-2	0.01	μg/L	<0.01	100 μg/L	99.6		50	130		
PCB 77	32598-13-3	0.01	μg/L	<0.01	100 μg/L	98.5		50	130		
PCB 149	38380-04-0	0.01	μg/L	<0.01	100 μg/L	104		50	130		

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Matrix: WATER	Matrix: WATER Method Blank (MB) Report) Report	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentratio	LCS	DCS	Low	High	Value	Control Limit
EP-065A: PCB Single Congeners (QC Lot: 8556	(20) - Continu	ed			n						
PCB 118	31508-00-6	0.01	μg/L	<0.01	100 μg/L	103		50	130		
PCB 153	35065-27-1	0.01	μg/L	<0.01	100 μg/L	106		50	130		
PCB 105	32598-14-4	0.01	μg/L	<0.01	100 μg/L	104		50	130		
PCB 126	57465-28-8	0.01	μg/L	<0.01	100 μg/L	108		50	130		
PCB 187	52663-68-0	0.01	μg/L	<0.01	100 μg/L	108		50	130		
PCB 128	38380-07-3	0.01	μg/L	<0.01	100 μg/L	108		50	130		
PCB 156	38380-08-4	0.01	μg/L	<0.01	100 μg/L	106		50	130		
PCB 180	35065-29-3	0.01	μg/L	<0.01	100 μg/L	109		50	130		
PCB 169	60044-26-0	0.01	μg/L	<0.01	100 μg/L	106		50	130		
PCB 170	35065-30-6	0.01	μg/L	<0.01	100 μg/L	109		50	130		
PCB 195	52663-78-2	0.01	μg/L	<0.01	100 μg/L	110		50	130		
EP-065B: Organochlorine Pesticides (QC Lot: 8	355620)										
4.4`-DDT	50-29-3	0.01	μg/L	<0.01	25 μg/L	# Not Determined		50	130		
4.4`-DDE	72-55-9	0.01	μg/L	<0.01	25 μg/L	# Not Determined		50	130		
4.4`-DDD	72-54-8	0.01	μg/L	<0.01	25 μg/L	# Not Determined		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: MARINE WATER	Recovery Limits (%)									
Compound	Low	High								
EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate										
Decachlorobiphenyl	50	130								

ALS Laboratory Group ANALYTICAL CHEMISTRY & TESTING SERVICES

ALS TECHNICHEM (HK) Pty Ltd

Environmental Division

CERTIFICATE OF ANALYSIS

HK0819965

CLIENT:

CONTACT: MS KAREN LUI

Batch: LABORATORY:

ERM HONG KONG

HONG KONG

ADDRESS: 21/F, LINCOLN HOUSE, 979 KING'S ROAD,

DATE RECEIVED:

10/01/2009

TAIKOO PLACE, ISLAND EAST,

DATE OF ISSUE:

02/02/2009

QUARRY BAY, HONG KONG.

SAMPLE TYPE:

No. of SAMPLES:

WATER 18

PROJECT: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY

COMMENTS

Sample(s) were collected by ALS Technichem (HK) staff on 10 January, 2009.

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

PAHs were subcontracted and tested by ALS Sydney.

ALS Sydney details report was attached. The attached report contains a total of 14 pages.

Sample Details

ALS Lab ID	Sample ID	Date of Sampling
HK0819965 - 1	MPB1_ME	10/01/2009
HK0819965 - 2	MPB1_ME DUP	10/01/2009
HK0819965 - 3	MPB2_ME	10/01/2009
HK0819965 - 4	MPB2_ME DUP	10/01/2009
HK0819965 - 5	MP_ME	10/01/2009
HK0819965 - 6	MP_ME DUP	10/01/2009
HK0819965 - 7	C2 (NM5)_ME	10/01/2009
HK0819965 - 8	C2 (NM5)_ME DUP	10/01/2009
HK0819965 - 9	MPB1_MF	10/01/2009
HK0819965 - 10	MPB1_MF DUP	10/01/2009
HK0819965 - 11	MPB2_MF	10/01/2009
HK0819965 - 12	MPB2_MF DUP	10/01/2009
HK0819965 - 13	MP_MF	10/01/2009
HK0819965 - 14	MP_MF DUP	10/01/2009
HK0819965 - 15	C1 (NM3)_MF	10/01/2009
HK0819965 - 16	C1 (NM3)_MF DUP	10/01/2009
HK0819965 - 17	C3 (NM6)_MF	10/01/2009
HK0819965 - 18	C3 (NM6)_MF DUP	10/01/2009

ISSUING LABORATORY: HONG KONG

Address

Brisbane Meibourne

Sydney

Newcastle

ALS Technichem (HK) Pty Ltd 11/F Chung Shun Knitting Centre

1-3 Wing Yip Street Kwai Chung HONG KONG

Phone: Fax:

852-2610 1044 852-2610 2021

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Ms Wong Wal Mart, Alice Laboratory Manager - Hong Kong

Other ALS Environmental Laboratories

Hong Kong

Singapore

Bogor

Kuala Lumpur

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AUSTRALIA

AMERICAS

Amtofagasta

Vancouver Santiago

Lima

Abbreviations: % SPK REC denotes percentage spike recovery

CHK denotes duplicate check sample

LOR denotes limit of reporting

ALS Technichem (HK) Pty Ltd

Part of the ALS Laboratory Group 11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, N.T., H.K. Phone: 852-2610 1044 Fax: 852-2610 2021 www.alsenviro.com

A Campbell Brothers Limited Company

ALS Laboratory Group ANALYTICAL CHEMISTRY & TESTING SERVICES



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order : ES0900518 Page : 1 of 8

Client : ALS TECHNICHEM (HK) Laboratory : Environment

Client : ALS TECHNICHEM (HK) Laboratory : Environmental Division Sydney
Contact : MS ALICE WONG Contact : Charlie Pierce

Address : 11/F CHUNG SHUN KNITTING CNTR Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

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KWAI CHUNG, N.T HONG KONG HONG KONG

Telephone : +852 001185226101044 Telephone : +61-2-8784 8555
Facsimile : +852 26102021 Facsimile : +61-2-8784 8500

Project : NEPM 1999 Schedule B(3) and ALS QCS3 requirement

Order number : ----

 C-O-C number
 : -- Date Samples Received
 : 15-JAN-2009

 Sampler
 : -- Issue Date
 : 28-JAN-2009

Site : --No, of samples received : 18

Quote number : SY/241/07 No. of samples received : 18

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



ACCREDITATION

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
Victor Kedicioglu Business Manager - NSW Organics

Work Order

4 of 8 ES0900518

Client

: ALS TECHNICHEM (HK)

Project

Analytical Results

Sub-Matrix: WATER		Client sample ID		HK0819965-1 MPB1-ME	HK0819965-2 MPB1-ME DUP	HK0819965-3 MPB2-ME	HK0819965-4 MPB2-ME DUP	HK0819965-5 MP-ME	
	Oli	ent samplin	ng nate r time	10-JAN-2009 15:00	10-JAN-2009 15:00	10-JAN-2009 15:00	10-JAN-2009 15:00	10-JAN-2009 15:00 ES0900518-005	
Compound	DAS Number	LOR	Urit	ES0900518-001	ES0900518-002	ES0900518-003	ES0900518-004		
EP132B: Polynuclear Aromatic Hydro	carbons								
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	59.1	<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	pg/L	<0,1	<0.1	<0.1	<0.1	<0.1	
Benzo(a)pyrene	50-32-8	0.05	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05	
Benzo(b)fluoranthene	205-99-2	0.1	pg/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	jig/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	<d.1< td=""><td><0.1</td><td><0.1</td><td><0.1</td></d.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	0.7	µg/L	<0.1	<0.1	<0.1	<0.1	< 0.1	
Fluorene	86-73-7	0.1	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1	
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	Lig/L	<0.1	<0.1	<0.1	50.1	< 0.1	
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	60.1	< 0.1	
Naphthalene	91-20-3	0.1	Jag/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	40.1	<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/ 1 .	<0.1	<0.1	₹0.1	<0.1	<0.1	
EP132T: Base/Neutral Extractable Sur	rrogates								
2-Fiuoropiphenyi	321-60-8	0.1	%	103	75.2	89.1	102	125	
Anthracene-d10	1719-06-8	0.4	%	95.2	100	. 101	104	108	
4-Terphenyl-d14	1718-51-0	0.1	%	95.4	98.9	102	104	106	

5 of 8

Work Order

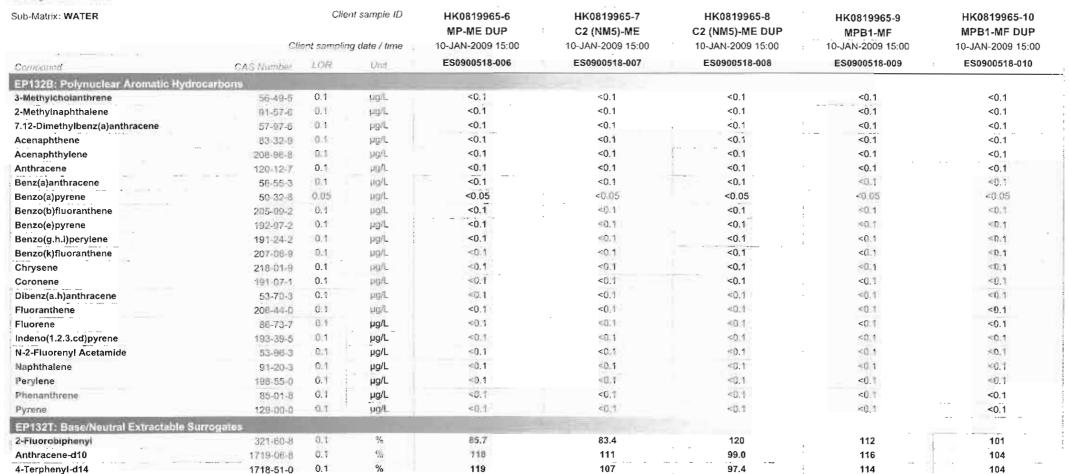
ES0900518

Chent

ALS TECHNICHEM (HK)

Project : -

Analytical Results





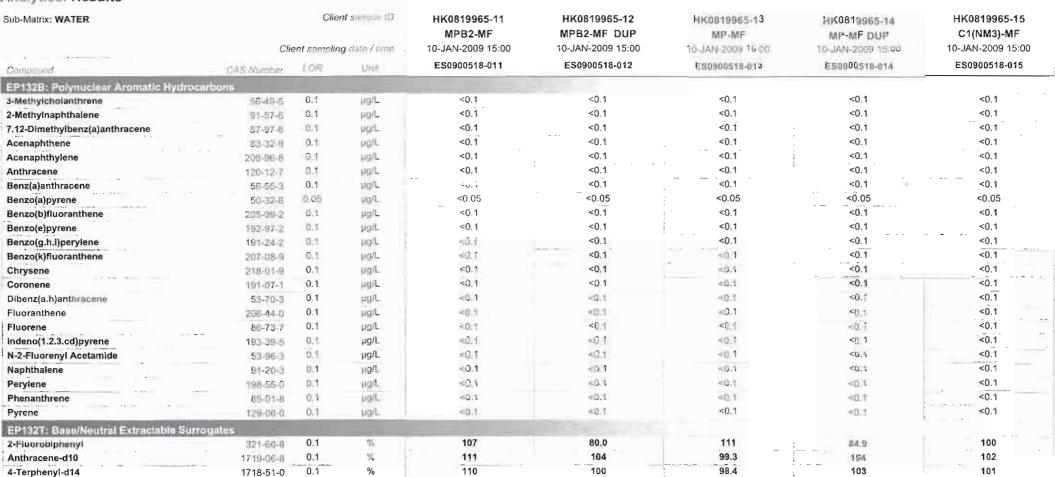
: 6 of 8

Work Order

ES0900518

Client Project ALS TECHNICHEM (HK)







P⊮ge Work Order 7 of 8 ES0900518

Work Order Client

: ALS TECHNICHEM (HK)

Project ;



Analytical Results								
Sub-Matrix: WATER		Chi	eni sample ID	HK0819965-16	HK0819965-17	HK0819965-18		
	Client sampling date / time			C1(NM3)-MF DUP	C3 (NM6)-MF	C3 (NM6)-MF DUP		
	GH	ent sample	California (medicality)	10-JAN-2009 15:00	10-JAN-2009 15-00	10-JAN-2009 15:00	March Adar and	
Compound	CAS Number	TOK	Unit	ES0900518-016	ES0900518-017	ES0900518-018	·	
EP132B: Polynuclear Aromatic Hydr	ocarbons							
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	3	
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	50.1	<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	Augh to an	
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	0.5	µg/L	₹0.1	×0.1	<0.1		
EP132T: Base/Neutral Extractable Si	A SHARE THE RESERVE		-10-					
EP 1521: Base/Neutral Extractable St Z-Fluorobiphenyl	321-50-8	0.1	%	80.5	105	93.1	:	
Anthracene-d10	1719-06-8	0.1	%	108	103	104		
4-Terphenyl-d14		0.1	%	106	101	103		
4-1 cipilettyi-u14	1718-51-0	0,1	,0	100	101	103	-	

Work Order

8 of 8 : ES0900518

Client

: ALS TECHNICHEM (HK)

Project

Surrogate Control Limits

Recovery Limits (%) Sub-Matrix: WATER

Compound	CAS Number	4.494	High	
EP132T: Base/Neutral Extractable Surrogalus				
2-Fluorobiphenyl	321-50-8	43	116	
Anthracene-d10	1719-06-8	27	133	:
4-Terphenyi-d14	1718-51-0	33	141	







Environmental Division

QUALITY CONTROL REPORT

Work Order : **ES0900518** Page : 1 of 6

Client : ALS TECHNICHEM (HK) Laboratory : Environmental Division Sydney

Contact : MS ALICE WONG Contact : Charlie Pierce

Address : 11/F CHUNG SHUN KNITTING CNTR Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

1-3 WING YIP STREET

KWAI CHUNG, N.T HONG KONG HONG KONG

 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
 : 15-JAN-2009

Sampler : — Issue Date : 28-JAN-2009
Order number

Quote number : SY/241/07 No. of samples received : 18

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



WORLD RECOGNISED ACCREDITATION

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 FadjarSenior Organic ChemistOrganicsVictor KediciogluBusiness Manager - NSWOrganics

Page : 2 of 6
Work Order : ES0900518

Client : ALS TECHNICHEM (HK)

Project · ---

ALS

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 insufficit 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 = Chemistry Abstract Services number

LOR = Limit of reporting

RPD = Relative Percentage Difference

= Indicates failed QC

: 4 of 6

Work Order

: ES0900518

Client

: ALS TECHNICHEM (HK)

Project

: ----

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)	100.00 / 100.00	Laboratory Control Spike (LC	S) Report	
				Ropart	Splice	Spike Recovery (%)	Resovery	Limits (21)
Method: Compound	CAS Number	LOR	Unit	Heautt	Concentration	LCS	LOW	High
P132B: Polynuclear Aromatic Hydrocerbons (QCLot: 864564)							
P132: 3-Methylcholanthrene	58-49-5	0.1	.µg/L	<0.1				
		0.10	Jo∕L		2 µg/L	77.3	85.8	121
P132: 2-Methylnaphthalene	91-57-6	0.1	μg/L	<0.1	2	*****		
		9.10	μg/L		2 µg/L	79.1	67 7	112
P132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1	μg/L	<0.1				****
		0.10	μg/L		2 μg/L	89.7	11.6	146
P132: Acenaphthene	83-32-9	0.1	μg/L	<0.1				
		0.10	μg/L		2 μg/L	74.4	73.2	111
P132: Acenaphthylene	208-96-8	0.1	րց/∟	<0.1				
		0.10	μg/L		2 µg/L	76.7	72.4	112
P132: Anthracene	120-12-7	0.1	µg/L	<0.1		· · · · · · · · · · · · · · · · · · ·		
		0.10	μg/L		2 μg/L	79.1	73.4	113
P132: Benz(a)anthracene	56-55-3	0.1	μg/L	<0.1		<u> </u>		****
	4	0.10	μg/L		2 µg/L	83.8	73.6	114
P132: Benzo(a)pyrene	50-32-8	0.05	μg/L	<0.05	2 μg/L	81.5	75.2	117
P132: Benzo(b)fluoranthene	205-99-2	0.1	μg/L	<0.1				
		0.10	μg/L		2 μg/L	72.5	71.4	119
P132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1				
		0.10	μg/L		2 μg/L	85.6	75.3	118
P132: Benzo(g.h.i)perylene	191-24-2	0.1	μg/Ĺ	<0.1				
		0.10	µg/L		2 μg/L	76.0	66.6	121
P132: Benzo(k)fluoranthene	207-08-9	0.1	μg/L	<0.1			100	
.,		0.10	μg/L		2 µg/L	99.4	74.8	118
P132: Chrysene	218-01-9	0.1	µg/L	<0.1	rana			
•		0.10	μg/L		2.35 =	80.7	69.6	120
P132: Coronene	191-07-1	0.1	μg/L	<0.1		,		
	,	0.10	µg/L		2 μg/L	82.1	47.4	131
P132: Dibenz(a.h)anthracene	53-70-3	0.1	μg/L	<0.1	****			
		0.10	μg/L		2 μg/L	75.2	71.5	117
P132: Fluoranthene	206-44-0	0.1	μg/L	<0.1				
		0.10	μg/L		2 µg/L	81.0	74.8	117
P132: Fluorene	86-73-7	0.1	µg/L	<0.1				
		0.10	μg/L		2 μg/L	75.4	72.9	114
P132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1	µg/L	<0.1				· ·
		0.10	µg/L	·	2 μg/L	76.8	67.8	119

Work Order

5 of 6 ES0900518

Client

Project

ALS TECHNICHEM (HK) : ----



Sub-Matrix: WATER				Method Blank (MR)		Laboratory Control Spike (LGS) Report		
				Report	Spike	Spirit Recovery (%)	Яесоуму	Litritts (%)
Method: Campaund	GAS Number	LOR	Иnи	Result	Concentration	165	Law	High
EP132B: Polynuclear Aromatic Hydrocarbons (O	CLot: 884564) - continued							
EP132: N-2-Fluorenyl Acetamide	53-96-3	0.1	μg/L	<0.1	•			
		0.10	μg/L		2 µg/L	117	53.6	131
EP132: Naphthalene	91-20-3	0.1	μg/L	<0.1		*****		
:		0.10	μg/L		2 μg/L	77.0	68.3	116
EP132: Perylene	198-55-0	0.1	hg/L	<0.1				-##
		0.10	μg/L		2 μg/L	81.4	68	122
EP132: Phenanthrene	85-01-8	0.1	μg/L	<0.1				:
	·	0.10	μg/L	·	2 μg/L	80.6	74.8	112
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1		* ** ***		
		0.10	μg/L		2 μg/L	81.7	75.1	117

Annex I

Dolphin Sighting Records

Project name: EM&A for Permanent Aviation Fuel Facility (PAFF)
Activity: Dolphin Impact Monitoring - Field Log Sheet
*Remark: Record the number of dolphin occurrence within the 500m exclusion (A) prior to dredging and (B) during decorded when there is no dredging

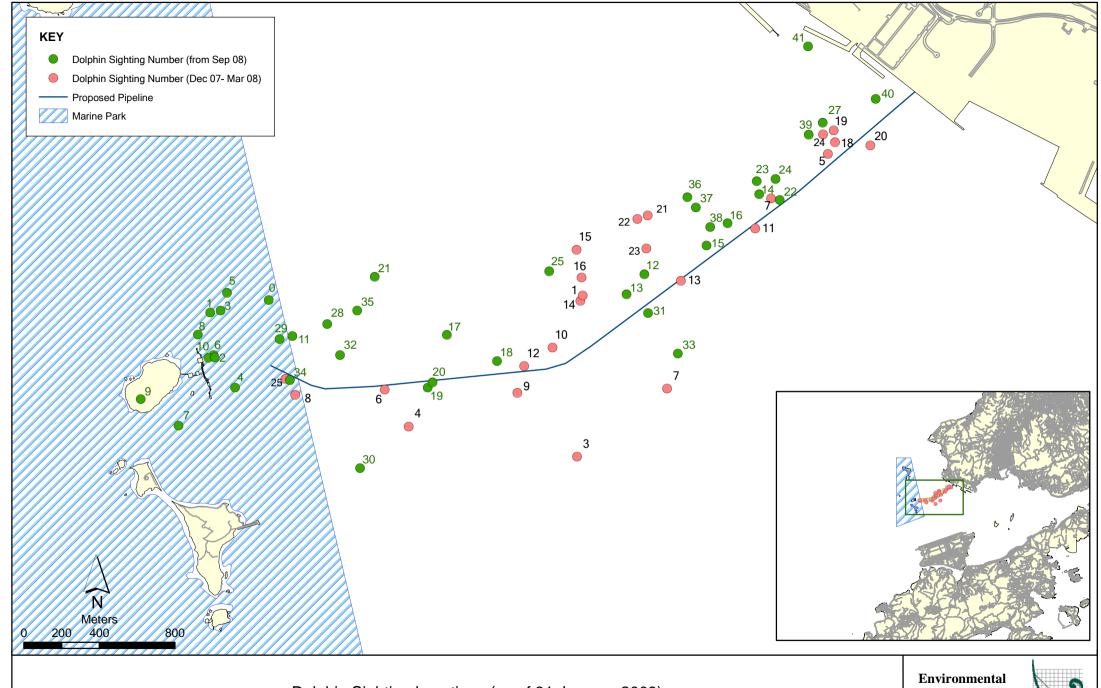
Week	D	ate	Dredger 1 No. of Dolphin Occurrence*	Sighting No.	Observers' Names
1	Mon	01-Sep	No Dredging	-	Richard Huang
·	Tue	02-Sep	15	1-7	Anton Tsang
	Wed	03-Sep	2	8	Anton Tsang
	Thu	04-Sep	2	9	Richard Huang
	Fri	05-Sep	1	10	Anton Tsang
	Sat	06-Sep	·	No Dredging	g
	Sun	07-Sep		No Dredging	
2	Mon	08-Sep	No Dredging		Richard Huang
	Tue	09-Sep	0	-	Anton Tsang
	Wed	10-Sep	0	-	Anton Tsang
	Thu	11-Sep	0	-	Richard Huang
	Fri	12-Sep	0	-	Anton Tsang
	Sat	13-Sep		No Dredging	•
	Sun	14-Sep		No Dredging	
3	Mon	15-Sep		No Dredging	
	Tue	16-Sep	0	-	Richard Huang
	Wed	17-Sep	0	-	Anton Tsang
	Thu	18-Sep	0	-	Richard Huang
	Fri	19-Sep	0	-	Anton Tsang
	Sat	20-Sep		No Dredging	
	Sun	21-Sep		No Dredging	
4	Mon	22-Sep	No Dredging	-	Ivy So
	Tue	23-Sep	No Dredging	-	Anton Tsang
	Wed	24-Sep	Typhoon		No Monitoring
	Thu	25-Sep	0	-	Richard Huang
	Fri	26-Sep	0	-	Ivy So
	Sat	27-Sep		No Dredging	
	Sun	28-Sep		No Dredging	

5	Man	20.00	0		lear Co
5	Mon	29-Sep		-	Ivy So
	Tue	30-Sep	4	11	Ivy So
	Wed	01-Oct	0	-	Richard Huang
	Thu	02-Oct	0	-	Ivy So
	Fri	03-Oct	0	-	Ivy So
	Sat	04-Oct	0	-	Ivy So
	Sun	05-Oct	0	-	Richard Huang
6	Mon	06-Oct	0	-	Ivy So
	Tue	07-Oct	0	-	Richard Huang
	Wed	08-Oct	0	-	Ivy So
	Thu	09-Oct	4	12-13	Ivy So
	Fri	10-Oct	0	-	Ivy So
	Sat	11-Oct	3	14	Ivy So
	Sun	12-Oct	1	15	Richard Huang
7	Mon	13-Oct	3	16	Ivy So
	Tue	14-Oct	0	-	Ivy So
	Wed	15-Oct	No Dredging	-	Ivy So
	Thu	16-Oct	0	-	Chung
	Fri	17-Oct	0	-	Ivy So
	Sat	18-Oct	0	-	Ivy So
	Sun	19-Oct	2	17	Richard Huang
8	Mon	20-Oct	0	-	Ivy So
	Tue	21-Oct	0	-	Ivy So
	Wed	22-Oct	5	18-20	Ivy So
	Thu	23-Oct	0	-	Richard Huang
	Fri	24-Oct	0	-	Ivy So
	Sat	25-Oct	0	-	Ivy So
	Sun	26-Oct	0	-	Richard Huang

		1			
9	Mon	27-Oct	No Dredging	-	No Monitoring
	Tue	28-Oct	No Dredging	-	Ivy So
	Wed	29-Oct	No Dredging	-	No Monitoring
	Thu	30-Oct	No Dredging	-	No Monitoring
	Fri	31-Oct	No Dredging	-	lvy So
	Sat	01-Nov	No Dredging	-	No Monitoring
	Sun	02-Nov	No Dredging	-	No Monitoring
10	Mon	03-Nov	No Dredging	-	No Monitoring
	Tue	04-Nov	No Dredging	-	No Monitoring
	Wed	05-Nov	No Dredging	-	Anton Tsang
	Thu	06-Nov	0	-	Richard Huang
	Fri	07-Nov	1	21-22	Anton Tsang
	Sat	08-Nov	No Dredging	-	Ivy So
	Sun	09-Nov	0	-	Richard Huang
11	Mon	10-Nov	1	23	Anton Tsang
	Tue	11-Nov	1	24	Anton Tsang
	Wed	12-Nov	0	-	Anton Tsang
	Thu	13-Nov	No Dredging	-	No Monitoring
	Fri	14-Nov	No Dredging	-	No Monitoring
	Sat	15-Nov	0	-	Ivy So
	Sun	16-Nov	1	25	Richard Huang
12	Mon	17-Nov	0	-	Anton Tsang
	Tue	18-Nov	0	-	Anton Tsang
	Wed	19-Nov	0	-	Anton Tsang
	Thu	20-Nov	0	-	Richard Huang
	Fri	21-Nov	11	26	Anton Tsang
	Sat	22-Nov	1	27	Ivy So
	Sun	23-Nov	0	-	Richard Huang

13	Mon	24-Nov	4	28-29	Anton Tsang
	Tue	25-Nov	0	-	Anton Tsang
	Wed	26-Nov	0	-	Anton Tsang
	Thu	27-Nov	0	-	Richard Huang
	Fri	28-Nov	0	-	Anton Tsang
	Sat	29-Nov	0	-	Ivy So
	Sun	30-Nov	0	-	Richard Huang
14	Mon	01-Dec	0	-	Anton Tsang
	Tue	02-Dec	No Dredging	-	No Monitoring
	Wed	03-Dec	No Dredging	-	No Monitoring
	Thu	04-Dec	3	30	Ivy So
	Fri	05-Dec	2	31	Ivy So
	Sat	06-Dec	0	-	Ivy So
	Sun	07-Dec	3	32	Ivy So
15	Mon	08-Dec	2	33	Anton Tsang
	Tue	09-Dec	0	-	Anton Tsang
	Wed	10-Dec	0	-	Richard Huang
	Thu	11-Dec	0	-	Ivy So
	Fri	12-Dec	1	34	Anton Tsang
	Sat	13-Dec	1	35	Ivy So
	Sun	14-Dec	0	-	Ivy So
16	Mon	15-Dec	2	36-37	Ivy So
	Tue	16-Dec	0	-	Anton Tsang
	Wed	17-Dec	1	38	Richard Huang
	Thu	18-Dec	0	-	Ivy So
	Fri	19-Dec	0	-	Anton Tsang
	Sat	20-Dec	0	-	Ivy So
	Sun	21-Dec	0	-	Richard Huang
17	Mon	22-Dec	0	-	Anton Tsang
	Tue	23-Dec	0	-	Anton Tsang
	Wed	24-Dec	0	-	Richard Huang
	Thu	25-Dec	0	-	lvy So

	_				
	Fri	26-Dec	0	-	Ivy So
	Sat	27-Dec	0	-	Ivy So
	Sun	28-Dec	0	-	Richard Huang
18	Mon	29-Dec	0	-	Anton Tsang
	Tue	30-Dec	0	-	Anton Tsang
	Wed	31-Dec	0	-	Richard Huang
	Thu	01-Jan	1	39	Richard Huang
	Fri	02-Jan	0	-	Anton Tsang
	Sat	03-Jan	0	-	Richard Huang
	Sun	04-Jan	0	-	Richard Huang
19	Mon	05-Jan	0	-	Anton Tsang
	Tue	06-Jan	0	-	Anton Tsang
	Wed	07-Jan	0	-	Richard Huang
	Thu	08-Jan	0	-	Ivy So
	Fri	09-Jan	0	-	Ivy So
	Sat	10-Jan	0	-	Richard Huang
	Sun	11-Jan	0	-	Richard Huang
20	Mon	12-Jan	0	-	Ivy So
	Tue	13-Jan	0	-	Ivy So
	Wed	14-Jan	1	40	Richard Huang
	Thu	15-Jan	2	41	Anton Tsang
	Fri	16-Jan	0	-	Anton Tsang
	Sat	17-Jan	0	-	Richard Huang
	Sun	18-Jan	0	-	Richard Huang
21	Mon	19-Jan	0	-	Anton Tsang
	Tue	20-Jan	0	-	Richard Huang
	Wed	21-Jan	0	-	Richard Huang
	Thu	22-Jan	0	-	Anton Tsang
	Fri	23-Jan	0	-	Anton Tsang
	* Dolphin	monitoring w	as not conducted from 24 Jan to	31 Jan 09 since there	was no dredging operation



Dolphin Sighting Locations (as of 31 January 2009)

Environmental Resources Management



				Dredger	Dredger	Sighting							
Sighting					,		#Sighting Angle from		Group		Boat		
No.	Date	Time	Chainage	(N-Lat)	Long)	(m)	Dredging Machine (o)	Group size	Composition*	Beaufort	Association	Behaviour	Other comments
1	2/9/2008	1000	4315	823838.545	806678.150	275	320	4	2UA, 1 SA, 1 SJ	1	None	Feeding, Travelling	Before Dredging
-	2/9/2008	4004	4321	823840.556	806672.460	00		0	OLIA	1	N	December Construction	Defere Decision
2	2/9/2008	1024	4315 4321	823838.545 823840.556	806678.150 806672.460	80	5	2	2UA	1	None	Breaching, Spy-hopping	Before Dredging
3	2/9/2008	1035	4321	823838.545	806678.150	300	330	2	1UA, 1SA	1	None	Travelling	Before Dredging
3	2/3/2000	1000	4321	823840.556	806672.460	300	330	2	104, 154	-	None	Travelling	Before Bredging
4	2/9/2008	1045	4315	823838.545	806678.150	220	75	3	1UA, 1SA, 1UJ	1	None	Travelling	Before Dredging
·	2,0,2000	10.0	4321	823840.556	806672.460	220		-	1074, 1074, 100		110110	Transg	Doi:10 D.tougg
5	2/9/2008	1108	4315	823838.546	806678.151	400	330	1	1SA	1	None	Travelling	Before Dredging
			4321	823840.557	806672.461							<u> </u>	
6	2/9/2008	1411	4315	823838.547	806678.152	50	0	1	1UA	2	None	Travelling	During Dredging
			4321	823840.558	806672.462								
7	2/9/2008	1530	4315	823838.548	806678.153	350	150	2	2UA	2	None	Travelling	During Dredging
			4321	823840.559	806672.463								
8	3/9/2008	1535	4306	823841.180	806687.338	155	300	2	2UA	1	None	Travelling	During Dredging
_			4300	823842.903	806693.345								
9	4/9/2008	1336	4306	823841.181	806687.339	380	190	2	2UA	2	None	Travelling	During Dredging
40	F/0/0000	4744	4300	823842.904	806693.346	00	45	4	4114	0	N	Tarvallia	Dandeine Channel
10	5/9/2008	1711	4315 4321	823838.546 823840.557	806678.151 806672.461	80	15	1	1UA	2	None	Travelling	Dredging Stopped
11	30/9/2008	1050	3925	823794.421	807000.841	250	350	4	4UA	2	None	Travelling	Before Dredging
- ''	30/3/2000	1030	4015	823867.660	806948.534	250	330	4	407	2	None	Travelling	Before Bredging
12	9/10/2008	1001	1900	824212.899	808853.818	200	10	3	3UA	2	None	Travelling	During Dredging
12	0/10/2000	1001	1925	824198.037	808833.716	200	10		00/1	-	140110	Travelling	During Broaging
13	9/10/2008	1427	1925	824198.037	808833.716	100	35	1	1UA	3	None	Travelling	Before Dredging
	0,10,200		1970	824171.284	808797.532					_			
14	11/10/2008	0839	1175	824643.917	809436.783	220	15	3	3 UA	2	None	Travelling	Before Dredging
			1160	824652.835	809448.845								
15	12/10/2008	0839	1125	824673.643	809476.988	240	160	1	1UA	2	None	Travelling	During Dredging
			1170	824646.890	809440.804								
16	13/10/2008	0818	1030	824730.121	809553.376	170	160	3	1SS, 1 SA, 1 UA	2	None	Breaching, Feeding	Before Dredging
			1025	824733.094	809557.397								
17	19/10/2008	11:04	2730	823785.196	808154.203	270	270	2	2UA	2	None	Travelling	Dredger was moving
40	00/40/0000	4.400	2680	823792.332	808203.670	550	20	2	0.114	0	N	Taranallia	Dunio a Das deia a
18	22/10/2008	1420	3180 3220	823757.391 823754.942	807705.065 807665.140	550	30	3	3 UA	2	None	Travelling	During Dredging
19	22/10/2008	1528	3220	823754.942	807665.140	180	55	2	2 UA	2	None	Travelling	During Dredging
19	22/10/2006	1320	3220	823754.943	807665.141	160	55	2	2 UA	2	None	Travelling	During Dreaging
20	22/10/2008	1625	3180	823757.393	807705.067	200	45	3	3UA	2	Hang	Feeding	Dredging Stopped
	22/10/2000	.020	3220	823754.944	807665.142	200			00/1	-	. iang	. ccag	2.cagg ctopped
21	7/11/2008	1210	3690	82376.168	807196.022	700	345	5	3UA, 2SA	2	Hang	Travelling, Feeding	Dredging Stopped
			3760	823721.882	807126.153				,			J. J	
22	7/11/2008	1618	1040	824724.176	809545.335	200	45	1	1UA	1	None	Travelling	During Dredging
		-	1015	824739.039	809565.468				-				
23	10/11/2008	1249	930	824789.572	809633.785	20	275	1	1UA	3	None	Travelling	Dredging Stopped
			905	824804.435	809653.888								
24	11/11/2008	1605	840	824843.078	809706.153	30	97	1	1UA	3	None	Travelling	During Dredging
05	40/44/0000	00.10	820	824854.968	809722.235	000	070		4114		N- · ·	T	Duning Day dair
25	16/11/2008	0843	2080	824105.888	808709.082	290	270	1	1UA	2	None	Travelling	During Dredging
26a*	21/11/2008	1430	4074	823904.923	806909.628	50	70	5	2UA, 2SS, 1UJ	2	None	Travelling, Breaching, Porpoising, Feeding	During Drodging
20a	£1/11/2000	1430	4074	823904.923	806922.380	30	10	3	200, 200, 100		INUITE	Travelling, Dreadiling, Folipoising, Feeding	During Dredging
26b*	21/11/2008	1430	4074	823904.280	806909.628	300	335	6	2UA, 2SA, 1SJ, 1UC	2	None	Travelling, Breaching, Feeding	During Dredging
	,,		4059	823904.280	806922.380					-			
* = Sighting	no 26a & 26b	the 2 grou		joined togther t		group, thus a to	otal of 11 dolphins						
27	22/11/2008	1558	545	825018.457	809946.360	100	325	1	1UA	3	None	Travelling	During Dredging
			490	825051.155	809987.585							·	
28	24/11/2008	1220	3770	823721.270	807116.172	400	345	1	1UA	4	None	Travelling	Dredging Stopped
			4030	823879.867	806939.816								
29	24/11/2008	1233	3770	823721.270	807116.172	250	305	3	2UA, 1SS	4	None	ong the side of dredging machine and the near	es Dredging Stopped

				Dredger	Dredger	Sighting							
Sighting					Coordinates (E-	Distance	#Sighting Angle from		Group		Boat		
No.	Date	Time	Chainage		Long)	(m)	Dredging Machine (o)	Group size	Composition*	Beaufort	Association	Behaviour	Other comments
			4030	823879.867	806939.816								
30	4/12/2008	1130	3530	823735.963	807355.722	480	110	3	3UA	3	None	Travelling	During Dredging
			3470	823739.636	807415.609								
31	5/12/2008	0851	1785	824281.268	808946.289	200	100	2	2UA	4	None	Travelling	Dredger was moving
32	7/12/2008	1056	1770 3600	824290.185 823731.678	808958.350 807285.853	200	350	3	2UA, 1SA	2	None	Travelling	Defere Dradeine
32	7/12/2008	1056	3550	823731.678	807285.853	200	350	3	20A, 15A	3	None	raveiling	Before Dredging
33	8/12/2008	1619	1625	824376.389	809074.943	500	115	2	2UA	4	None	Travelling, Breaching	During Dredging
	0/12/2000	1019	1590	824397.197	809103.086	300	113	2	207	-	None	Travelling, Breaching	During Dreaging
34	12/12/2008	1204	3980	823839.178	806968.875	200	66	1	1UA	2	None	Travelling	Dredging Stopped
	,,,		3970	823831.041	806974.687						110110		
35	13/12/2008	1440	3600	827373.678	807285.853	450	340	1	1UA	3	None	Travelling	Dredger was moving
			3605	823731.372	807280.863							<u> </u>	
36	15/12/2008	0845	1265	824590.412	809364.415	170	270	1	1SA	2	None	Travelling	Dredger was moving
37	15/12/2008	0855	1265	824590.412	809364.415	100 - 300	from 330 to 270	2	1UA, 1SS	2	None	stayed at about 100m at 270 degree	Dredger was moving and before dredging
	4=/40/0000	440=					470					—	
38	17/12/2008	1105	1155	824655.808	809452.865	120	170	3	1UA, 2SJ	2	None	Travelling	During Dredging
39	1/1/2009	1045	1145 95	824661.753 825286.472	809460.906 810304.839	470	190	1	1UA	2	None	Traveling	During Dredging
39	1/1/2009	1045	95	020200.472	010304.039	470	190	ı	TUA	2	None	rraveling	During Dreaging
40	14/1/2009	0936	0	825343.390	810380.900	80	200	1	1UA	2	None	Milling	During Dredging
70	14/1/2000	0000	5	825340.394	810376.897	- 00	200	·	10/1	-	140110	TVIIIII IS	Burning Broading
41	15/1/2009	1129	0	825343.390	810380,900	500#	300#	2	2UA	2	None	Breaching	Distance and sighting angle were recorded from the plac where there was underwater operation going
			5	825340.394	810376.897			_			110110		ep a a a a a a a a a a a a a a a a a a a
*Key:				# Compass bearing is used (North = 0 degree)									
UC = Unspotted Calf													
UJ = Unspotted Juvenile													
SJ = Spotted Juvenile													
SS = Spotted Sub-adult													
SA = Spotted Adult													
UA = Ur	spotted Adult												
-			<u> </u>										
			_	I		I		1		1			1

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