

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

Sixteenth Monthly Environmental Monitoring and Audit Report – March 2008

14<sup>th</sup> April 2008

**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:	17 <sup>th</sup> Monthly EM&A Report - March 2008
Date of Report:	14 <sup>th</sup> April 2008
Date prepared by ET:	14 <sup>th</sup> April 2008
Date received by IEC:	15 <sup>th</sup> April 2008

Reference EP Condition

Environmental Permit Condition:	Condition No.: 5.3
Content:	<i>Environmental Monitoring and Audit (EM&amp;A) for the Project</i>
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/ <del>plan</del> complies with the above referenced condition of EP-262/2007/B	
Craig A Reid, Environmental Team Leader:	Date: 14 <sup>th</sup> April 2008

IEC Verification

I hereby verify that the above referenced document/ <del>plan</del> complies with the above referenced condition of EP-262/2007/B	
Dr Guiyi Li, Independent Environmental Checker:	Date: 23/04/08

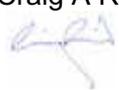
Notes: EP-262/2007/B has replaced the former EP-262/2007/A, EP-262/2007 and EP-139-2002/A for the PAFF project after the resubmission of revised EM&A Manual and revised EIA Report respectively.

## Permanent Aviation Fuel Facility (EP-262/2007/B) Sixteenth Monthly Environmental Monitoring and Audit Report – March 2008

14<sup>th</sup> April 2008

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:	14 <sup>th</sup> April 2008

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## **EXECUTIVE SUMMARY**

The construction works for the Permanent Aviation Fuel Facility resumed on 9<sup>th</sup> July 2007. This **seventeenth** monthly Environmental Monitoring and Audit (EM&A) report presents the EM&A works carried out during the period from **1<sup>st</sup> March to 31<sup>st</sup> March 2008** in accordance with the *EM&A Manual*.

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

No exceedances of Depth-averaged Turbidity and Depth-averaged Suspended Solids (SS) were recorded during the monitoring month. One exceedance of Limit Level of Depth-averaged Dissolved Oxygen was found on 19 March 2008. Following review of data in accordance with the procedures specified in the *EM&A Manual*, this exceedance was considered due to natural fluctuation from the Pearl River discharge rather than the Project Works.

### *Complaint Log*

No environmental complaints were received during the reporting period.

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

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

### *Reporting Changes*

There were no reporting changes in the reporting period.

### *Future Key Issues*

- It should be noted that dredging activities have been suspended from 1<sup>st</sup> April onwards and are tentatively scheduled to resume in September 2008; and,
- Dust release and suppression.

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

The construction works for PAFF commenced in November 2005 based upon the previous EIA (*EIAO Register Number AEIAR-062-2002*) conducted and the Environmental Permit *EP-139/2002* granted on the 28<sup>th</sup> 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.

It should be noted that at the time of reporting, a further Variation to the Environmental Permit has been approved, primarily to allow for dredging works to continue during 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 9<sup>th</sup> 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 **seventeenth** EM&A Report which summarizes the monitoring results and audit findings for the EM&A programme during the reporting period from **1<sup>st</sup> March** to **31<sup>st</sup> March 2008**.

## 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*. *Table 2.2* presented the cumulative quantity of excavated materials up to 31<sup>st</sup> March 2008. The cumulative dredging volume during the reporting period was presented in *Figure 2.1*.

*Table 2.1 Summary of Works Undertaken During the Reporting Period*

Area	Works undertaken
Tuen Mun Area 38	Tank Farm 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 Materials up to 31<sup>st</sup> March 2008*

Type of Excavated Materials	Cumulative Bulk Volume (m <sup>3</sup> )
Contaminated Mud	105,974
Uncontaminated Mud	97,815

### 2.4 MONITORING SCHEDULE OF THE REPORTING MONTH

Daily water quality monitoring during dredging activities was conducted during the monitoring period. The monitoring schedule on March 2008 is presented in *Annex C*.

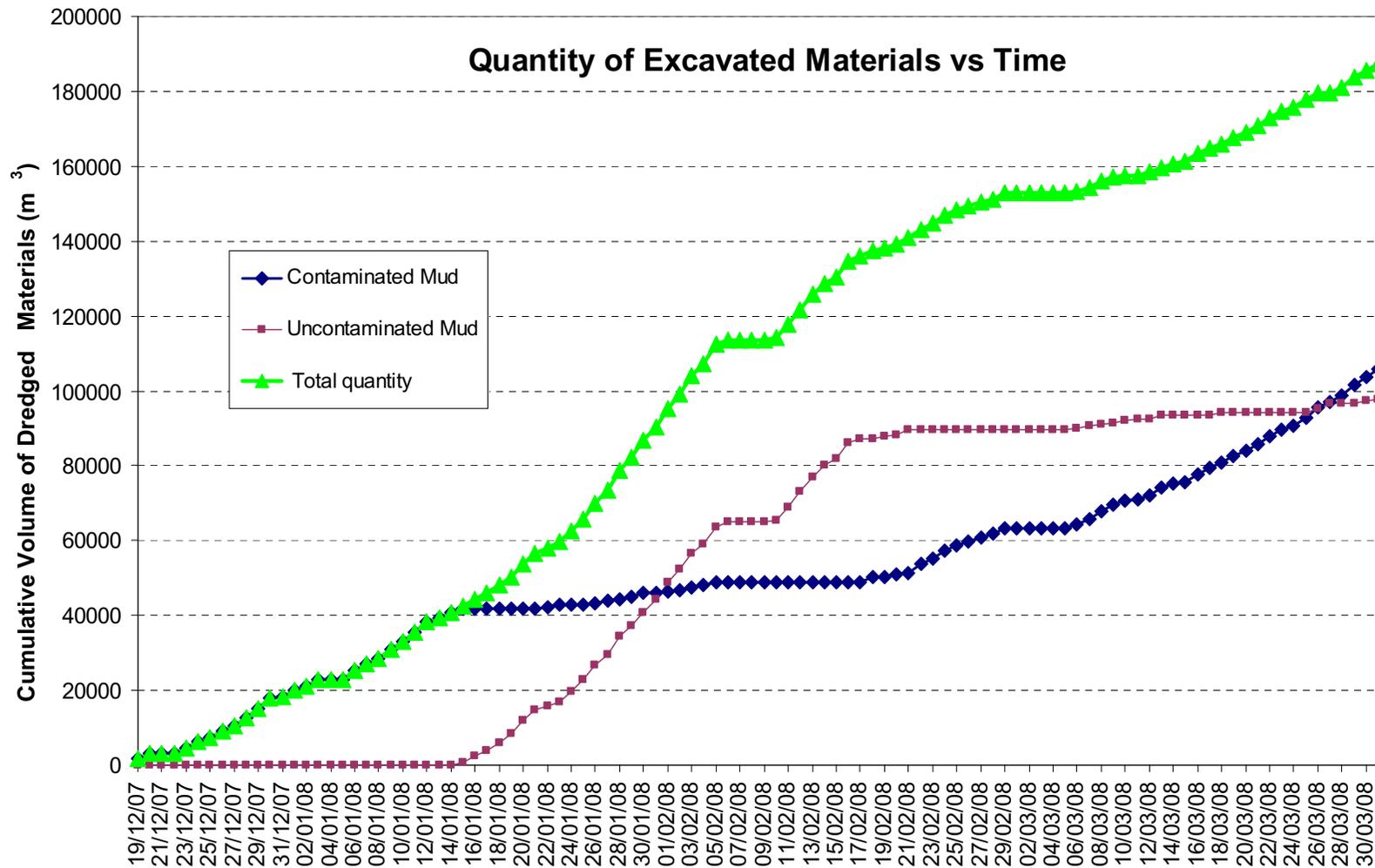


Figure 2.1 Cumulative volume (m<sup>3</sup>) of excavated materials from 19 December 2007 to 31 March 2008. Please be noted that no dredging was conducted on 21 and 22 December 2007, 4 and 5 January, 7 and 8 February, 1 to 5 March, and 11 March 2008.



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-RW0678-07	21 December 2007 to 18 June 2008	For marine jetty works including concrete pump derrick barges, hand-held grinders, generators, air compressors, boring machines, water pumps, tug boat, grout mixers and grout pumps
	GW-RW0094-08	1 March to 31 March 2008	For marine dredging operation including grab dredger, tug boat, split hopper barge and motor sampan
Marine Dumping Permit	EP/MD/08-064	13 December 2007 to 29 February	For Type 1 - Open Sea Disposal

Permit/ Licenses/ Notification	Reference	Validity Period	Remarks
		2008	
	EP/MD/08-065	13 December 2007 to 12 January 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-071	13 January 2008 to 12 February 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-090	3 March to 31 March 2008	For Type 1d & Type 2 marine disposal
	EP/MD/08-091	3 March to 31 March 2008	For Type 1 – Open Sea Disposal
Wastewater Discharge License	EP760/421/011399/1	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. During the reporting month, a meeting was organised by the CLG on 7 March 2008.

The details of the CLG (including Membership and its Terms of Reference) and the meeting minutes can be found on the Project website (<http://www.paffhk.com>).

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

There was exceedance of the Limit Level of Depth-averaged Dissolved Oxygen (DO) on the 19 March 2008. Such exceedance is discussed in *Section 3.2*.

## 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 were received in this reporting period. A summary of legal proceeding since project commencement is presented in *Annex D*.

### 3.1 PREVIOUS ENVIRONMENTAL DEFICIENCIES AND FOLLOW-UP ACTIONS

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

Weekly site inspections were carried out by the ET on 5, 14, 20 and 28 March 2008. Overall, the site was in good orderly manner and no non-compliance was found. Environmental deficiencies and follow-up actions/mitigation measures were identified during the inspections, as follows:

#### *Air Quality*

- Water tankers were used regularly to wet the road surface to minimize dust emission.
- Site entrance was paved and wheel-washing facility was provided to avoid dust deposit on the public road.
- Main access road within the site (between site office and exit) was paved to avoid dust emission. Other sections of the major access road in the construction area were paved with stones.
- During the site inspection on 14 March 2008, sand piles were observed to be temporarily stored near the operation building under construction. The contractor was recommended to cover the unused sand piles with impervious sheets to avoid wind erosion.

#### *Noise*

- No noisy activities were conducted during the audit.
- All air compressors on site were operated with a valid noise label.

#### *Water Quality*

- During the site inspection on 28 March 2008, sediment plumes were spotted on seawater near the seawall opposite from the operation building. While no such observation was identified in the subsequent inspection, investigations revealed that the incident could be contributed by uncontrolled storm water releases from other operations that share the discharge pipe. The contractor was recommended to maintain good site practices and avoid soil and sediment runoff into sewers.
- Site toilets were provided on site. A soil soakaway system with holding tanks was installed to treat the sewage from the toilets. No effluent discharge out of the site was made.

### *Waste Management*

- During the site inspection on 14 and 20 March 2008, piles of general and wood wastes from construction works at the operation building were piled up on open areas without proper containers. The Contractor was recommended to arrange a suitable waste bin for temporary collection of wastes in accordance to the waste management plan developed from the approved EIA.
- During the site visit on 5 and 20 March 2008, chemical waste bins in the chemical waste storage were not labelled properly. The Contractor was recommended to ensure proper chemical management in accordance with the procedures presented in the EIA.
- During the site visit on 28 March 2008, chemical waste bin on the dredger GD31 was not properly positioned. The Contractor was recommended to ensure proper chemical management in accordance with the procedures presented in the EIA.

### *Landscape and Visual*

- The transplanted trees at the new site were in good and healthy condition; and,
- The berm was habilitated by vegetation.

Overall, 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

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

Water quality monitoring during dredging activities recorded one exceedance of Limit Level of Depth-averaged DO on Impact Station MPB2 during mid-ebb tidal condition on 19 March 2008. Details of exceedance were presented in the monitoring results *Annex G*.

Although dredging operations were undertaken during the reporting period, the exceedances were unlikely to be caused by the Project and were considered to be an isolated case due to the following reasons:

- No exceedance of AL Levels of other parameters (ie Bottom DO, SS and Turbidity) of all Impact Stations during the same tidal period
- No exceedance of AL Levels of all parameters of all Impact Stations during the subsequent monitoring period

The exceedance was hence considered to be isolated case and may be due to the regional natural fluctuation.

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

### 3.3 *IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS*

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

## 4 ENVIRONMENTAL MONITORING

### 4.1 AIR AND NOISE

Air and Noise monitoring is not required for the project.

### 4.2 WATER QUALITY

In accordance to the EM&A Manual, during dredging activities, water quality monitoring commenced on 17 December 2007. 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 dissolved oxygen levels of all Impact Stations were compliant with the Action and Limit (AL) Levels specified in the *EM&A Manual* with the exception of depth-averaged DO on Station MPB2 during mid-ebb tidal condition on 19 March 2008. A review of the exceedance concluded that this was not attributable to Project works and was likely due to natural variation (see *Section 3.2* for further details). All measured Turbidity and Suspended Solids (SS) were compliant with the Action and Limit (AL) Levels during the reporting month.

### 4.3 POPs MONITORING

Biweekly monitoring of water samples was conducted for POPs analysis. At the time of this report, results were available for 20 February and 10 March 2008. All POPs parameters (ie total PCBs, total DDTs and total PAHs) were below detection limits. Monitoring results and QA/QC reports for POPs testing are presented in *Annex H*.

The remaining results of February's monitoring will be presented in the next *Monthly Monitoring Report* once they become available.

### 4.4 WASTE MANAGEMENT

The Contractor's revised Waste Management Plan (Revision 4) (WMP) was submitted to the EPD on 20<sup>th</sup> September 2007.

### 4.5 CULTURAL HERITAGE

A marine archaeological Watching Brief of two sub-surface anomalies was implemented from 21<sup>st</sup> to 28<sup>th</sup> February 2008. No archaeological sites or relics were found and it is considered by the licensed Marine Archaeologist that the anomalies have no cultural heritage significance. No additional mitigation

measures were thus required to be implemented by the PAFF project in regard to the anomalies SS1 and SS2.

The details and findings of this watching process will be presented in the *Watching Brief Report* and submitted separately to EPD and AMO for review.

#### 4.6 *LANDSCAPE AND VISUAL*

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

According to the *EIA report* and *EM&A Manual*, mitigation measures and design phase audit are required to minimise the risk of fuel spill and hazards. The Contractor will submit the updated design audit plan according to the EP requirements.

Pursuant to *Condition 3.5* of the EP, the Contractor submitted three design drawings which address the specific sub-clauses on *Condition 3.5a* of the EP concerning the containment systems of aviation fuel storage tank farm. The ET and the IEC have provided certification and verification to the drawings respectively and the drawings were 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 17 December 2007. During the reporting period, a total of seven 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 Community Liaison Group, carrying out

design audit, and monitoring of Persistent Organic Pollutants during construction of the Project. The updated EM&A Manual was revised accordingly to the comments received from the EPD on 6 December 2007 and was submitted to the EPD on 10 December 2007. Comments were received from the EPD on 22 January 2008. The ET will update the *EM&A Manual* accordingly within the next reporting period.

#### **4.10**      ***BASELINE WATER QUALITY MONITORING***

Baseline water quality monitoring was conducted between 24 October and 30 October 2007 at six designated monitoring stations (three impact stations and three control stations) established for the Project in accordance with the *EM&A Manual*. The *Final Baseline Monitoring Report* was submitted to the EPD on 21 November and comments were received from the EPD on 6<sup>th</sup> December. A revised *Final Baseline Monitoring Report* was submitted to the EPD on 20<sup>th</sup> February 2008 with no further comments received and later placed under the EIAO register.

## 5 *FUTURE KEY ISSUES*

### 5.1 *KEY ISSUES FOR THE NEXT ONE MONTH*

It should be noted that dredging activities have been suspended from 1<sup>st</sup> April onwards and are tentatively scheduled to resume in September 2008. No dredging operation will be undertaken in the next reporting period. As such, a key issue to be considered in the next one month will be:

- Dust release and suppression.

### 5.2 *IMPACT PREDICTION FOR THE NEXT ONE MONTH*

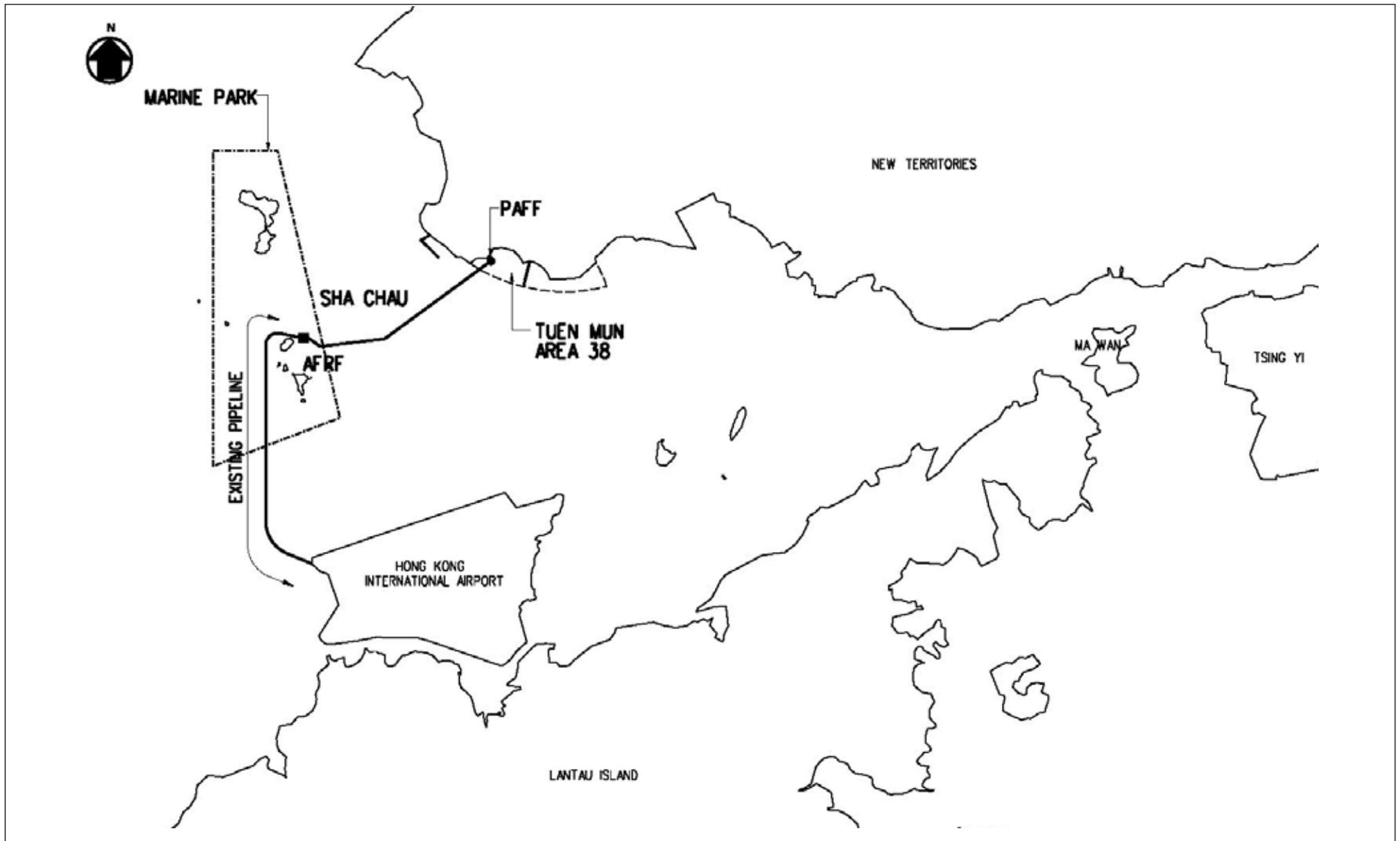
Provided that environmental mitigation measures including good on-site practises are properly implemented, it is not expected that unacceptable adverse impacts will arise.

### 5.3 *WORKS AND MONITORING SCHEDULE FOR THE NEXT ONE MONTH*

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

Annex A

## Project Location



Annex A

Location of PAFF

FILE: 0018105bb1  
DATE: 12/11/2007

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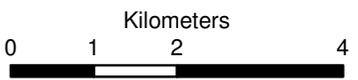
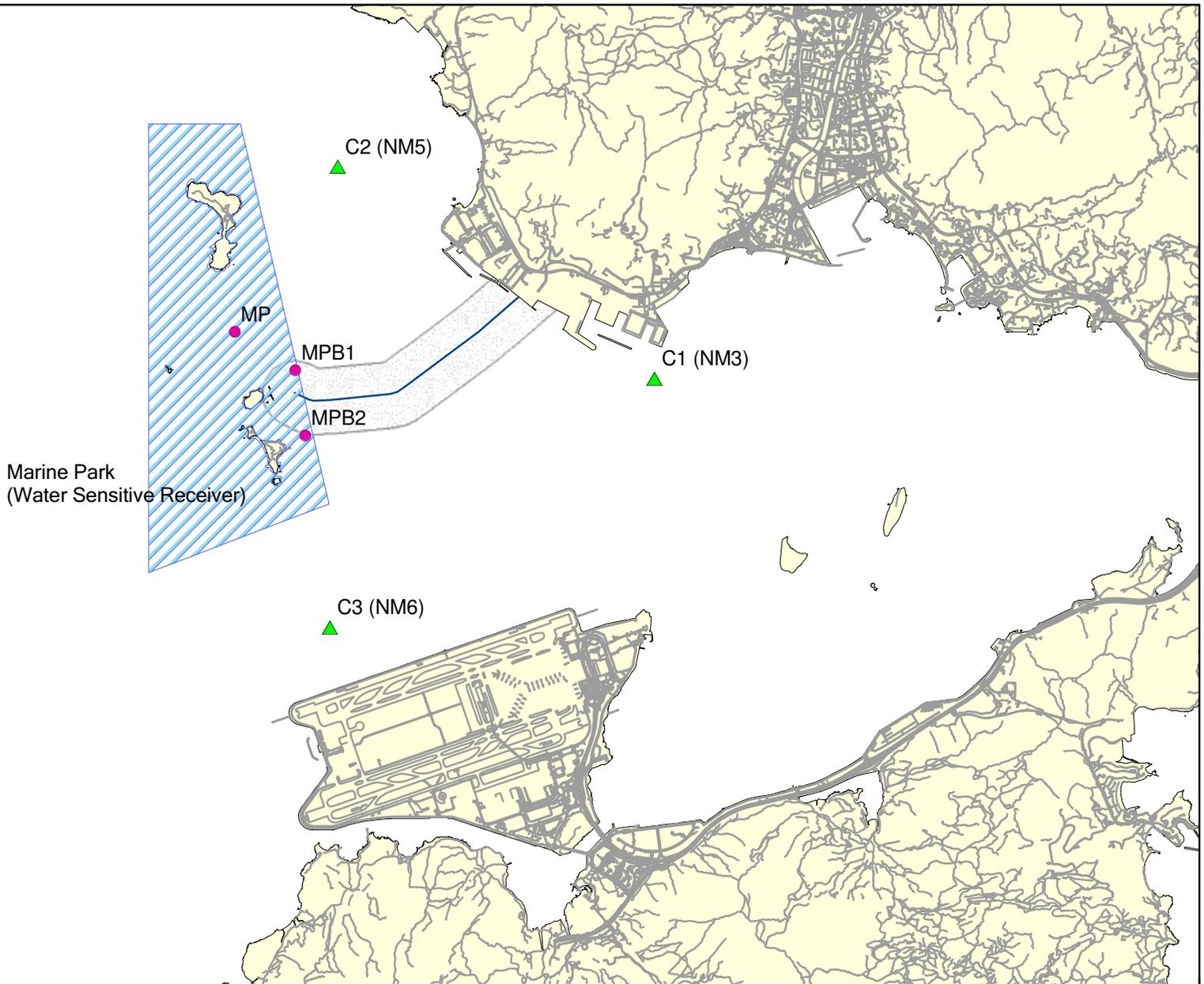


Annex B

Water Quality Monitoring  
Stations, Water Quality and  
Ecological Sensitive  
Receivers

**KEY**

-  Control Stations
-  Impact Stations
-  Marine Park
-  Proposed Pipeline
-  Potential IMO1 & IMO2 Monitoring Zone



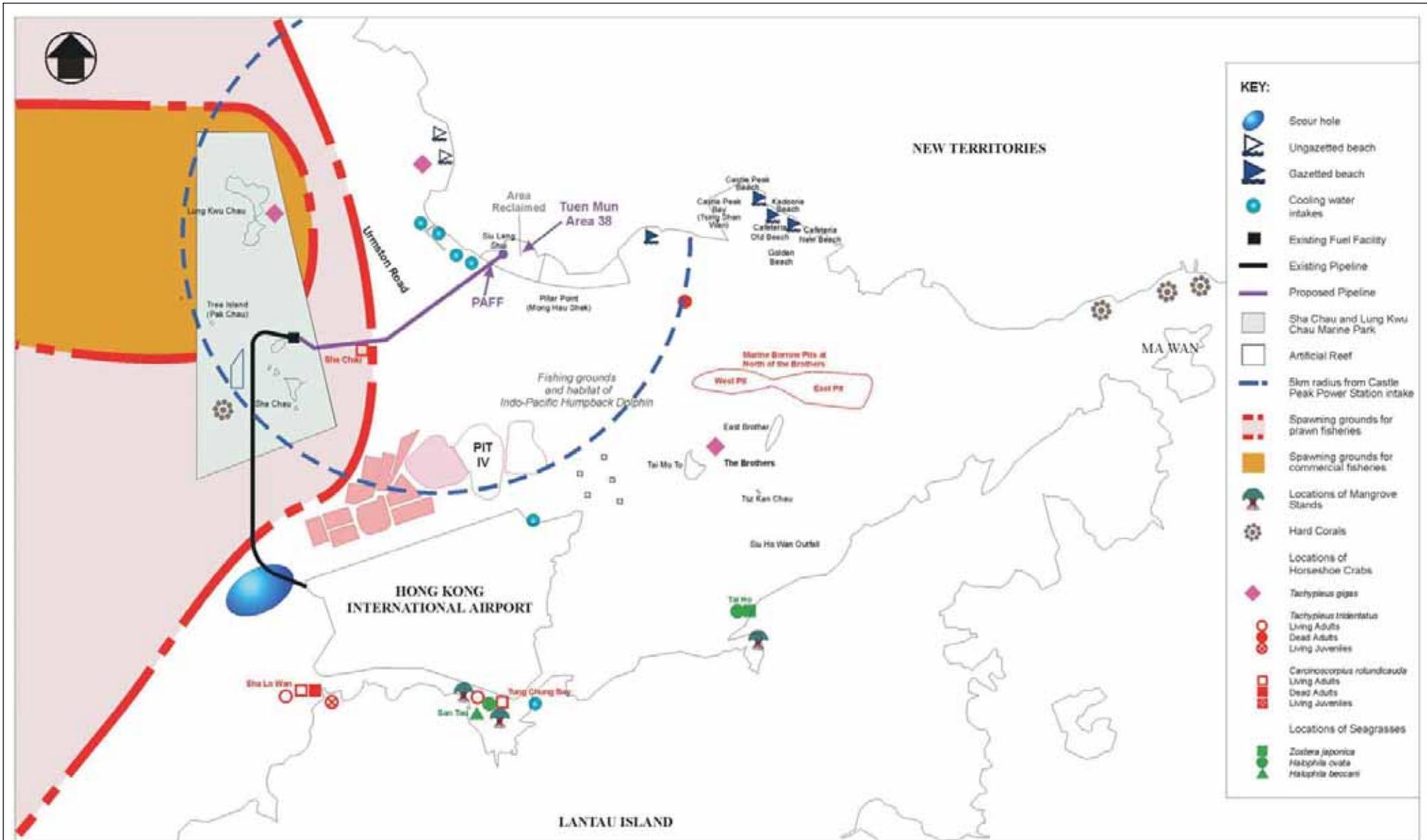
Annex B

Water Sensitive Receiver and Water Quality Monitoring Locations

File: 0018105\_4.mxd  
Date: 23/01/2006

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Annex B

Water Quality and Ecological Sensitive Receivers

FILE: C2475aa  
DATE: 12/11/2007

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

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Annex C

## Monitoring Schedule for the Reporting Period and Next Month

**Permanent Aviation Fuel Facility  
Tentative Water Quality Monitoring Schedule - March 2008**

Reference Tidal Station: Lok On Pai (source: HK Observatory Department)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Mar
02-Mar	03-Mar	04-Mar	05-Mar	06-Mar	07-Mar	08-Mar
				Mid-Ebb 12:32 Mid-Flood 17:55	Mid-Ebb 13:01 Mid-Flood 18:41	Mid-Flood 07:42 Mid-Ebb 13:31
09-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar	15-Mar
Mid-Flood 08:04 Mid-Ebb 14:04	Mid-Flood 08:29 Mid-Ebb 14:41 <i>+POP Samples</i>		Mid-Flood 09:24 Mid-Ebb 16:09	Mid-Flood 09:54 Mid-Ebb 17:06	Mid-Flood 10:23 Mid-Ebb 18:13	Mid-Flood 06:48 Mid-Ebb 19:43
16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar	22-Mar
Mid-Flood 08:43 Mid-Ebb 21:19	Mid-Flood 10:04 Mid-Ebb 22:28	Mid-Ebb 11:23 Mid-Flood 16:28	Mid-Ebb 11:56 Mid-Flood 17:26	Mid-Ebb 12:27 Mid-Flood 18:13	Mid-Ebb 12:56 Mid-Flood 18:55	Mid-Flood 07:27 Mid-Ebb 13:23
23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar	29-Mar
Mid-Flood 07:46 Mid-Ebb 13:51	Mid-Flood 08:07 Mid-Ebb 14:22 <i>+POP Samples</i>	Mid-Flood 08:28 Mid-Ebb 14:54	Mid-Flood 08:49 Mid-Ebb 15:28	Mid-Flood 09:08 Mid-Ebb 16:06	Mid-Flood 09:20 Mid-Ebb 16:53	Mid-Flood 05:13 Mid-Ebb 17:54
30-Mar	31-Mar					
Mid-Flood 06:24 Mid-Ebb 19:17	Mid-Flood 08:08 Mid-Ebb 20:40					

The schedule is subject to agreement from the EPD on the monitoring times. The schedule will be revised after reviewing the progress of the construction works or due to adverse (safety, weather etc) conditions.

Annex D

## Cumulative Complaints Statistics

*Summary of Environmental Complaints*

Reporting Period	Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
Before construction works	1	1	Dust
18/11/05 - 15/12/05	1	2	Dust
15/12/05 - 14/01/06	0	2	Nil
15/01/06 - 14/02/06	0	2	Nil
15/02/06 - 14/03/06	0	2	Nil
15/03/06 - 14/04/06	0	2	Nil
15/04/06 - 14/05/06	0	2	Nil
15/05/06 - 14/06/06	0	2	Nil
15/06/06 - 14/07/06	0	2	Nil

Re-commencement of construction works on 9<sup>th</sup> July 2007

09/07/07 - 31/07/07	0	2	Nil
01/08/07 - 31/08/07	0	2	Nil
01/09/07 - 30/09/07	0	2	Nil
01/10/07 - 31/10/07	0	2	Nil
01/11/07 - 30/11/07	0	2	Nil
01/12/07 - 31/12/07	0	2	Nil
01/01/08 - 31/01/08	0	2	Nil
01/02/08 - 29/02/08	0	2	Nil
01/03/08 - 31/03/08	0	2	Nil

*Summary of Environmental Summons*

Reporting Period	Environmental Summons		
	Frequency	Cumulative	Summon Nature
18/11/05 - 15/12/05	0	0	Nil
16/12/05 - 14/01/06	0	0	Nil
15/01/06 - 14/02/06	0	0	Nil
15/02/06 - 14/03/06	0	0	Nil
15/03/06 - 14/04/06	0	0	Nil
15/04/06 - 14/05/06	0	0	Nil
15/05/06 - 14/06/06	0	0	Nil
15/06/06 - 14/07/06	0	0	Nil

Re-commencement of construction works on 9<sup>th</sup> 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

Annex E

## Implementation Schedule

## ANNEX E IMPLEMENTATION SCHEDULE

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
<b>Water Quality</b>										
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	Pending
6.7	6.8.1	No hydraulic dredging within Marine Park.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
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 AFRF Marine access channel	Airport Authority	TMEIA		Y		N/A	Pending
6.4		The work rate for dredging should not exceed 4,000 m <sup>3</sup> /hr for the TSHD and 7,000 m <sup>3</sup> /day for the grab dredger.	Marine Park / Pipeline Dredging	Contractor	TMEIA		Y		N/A	Pending
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	Pending
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	Pending
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	Pending

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
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	Ongoing
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 on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
6.7	6.8.1	Storm drainage should be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sandbag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
6.7	6.8.1	The contractors shall prepare oil/chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately.	Land site/ Throughout construction period	Contractor	TMEIA ProPECC Note 1/94. WPCO TM on Effluent Standards		Y		N/A	Ongoing
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

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
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 within 3 months of 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
<b>Ecology</b>										
7.8	5.3	Undertake post construction dolphin abundance monitoring.	Construction	Contractor	TMEIA			Y	N/A	Pending
7.8	5.3	A 250m dolphin exclusion zone shall be implemented and dredging shall not begin until the observer has confirmed that the area has been clear for 30 minutes.	250m around dredger/throughout dredging in Marine Park and along the length of pipeline	Contractor	TMEIA			Y	N/A	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
7.8	5.3	Works will be restricted to a daily maximum of 12 hours within daylight hours.	Throughout dredging in Marine Park and along the length of the pipeline except for the section crossing Urmston Road Channel	Contractor	TMEIA		Y		N/A	Pending
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	Pending
<b>Landscape &amp; Visual</b>										
8.10	7.2.1	The construction programme for the PAFF should be reduced to the shortest possible period.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	The extent and periphery of the works areas should be managed so that they are as small as possible and do not appear cluttered, untidy and unattractive, particularly to road traffic along Lung Mun Road.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing
8.10	7.2.1	Temporary hoarding barriers should be of a recessive visual appearance in both colour and form.	PAFF site / throughout construction period	Contractor	TMEIA	Y	Y		N/A	Ongoing
8.10	7.2.1	Materials should be stored in areas with the least obstruction to residents, pedestrians and traffic.	PAFF site / throughout construction period	Contractor	TMEIA		Y	Y	N/A	Ongoing

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
<b>Cultural Heritage</b>										
9.8.1	9.2.1	Undertake a watching brief during dredging of the pipeline within 25m either side of anomalies SS1 and SS2. This should comprise: <ul style="list-style-type: none"> <li>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;</li> <li>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 brought on deck for cleaning and examination; and,</li> </ul>	Within vicinity of SS1 and SS2	Franchisee	TMEIA		Y		N/A	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
		<ul style="list-style-type: none"> <li>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.</li> </ul>								
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	Pending
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	Pending
<b>Fuel Spill Risk</b>										
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	Pending
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	Pending
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	Pending
11.4.1	10.2	Pipeline to be covered with a protective rock armour layer.	Pipelines/ Design Phase	Franchisee	TMEIA		Y		Franchisee	Pending

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
11.6	10.4	Regular inspections and audits will be undertaken by the Franchisee during the operational phase of the facility: <ul style="list-style-type: none"> <li>Two inspections every year of the tank farm, jetty and pipelines including one undertaken pursuant to the Joint Inspection Group (JIG) explained above;</li> <li>Inspection of the whole sub sea pipelines every 5 to 10 years;</li> <li>Health, Safety and Environmental audit of the facility once every 3 years; and,</li> <li>Inspection of the structural integrity of the tanks once per year.</li> </ul>	Operation	Franchisee	TMEIA			Y	N/A	Pending
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.	Within 3 months of start of operation of the PAFF with audits every 24 months	Franchisee	TMEIA			Y	N/A	Pending
<b>Land Contamination</b>										
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	Pending
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	Pending
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	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
13.5.1	10.2	Impermeable lining shall be provided for all tank pits.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
13.5.1	10.2	Leak detection systems shall be provided to all valves.	Tank farm / Design	Franchisee	TMEIA	Y			N/A	Pending
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	Pending
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 roof 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	Pending
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	Pending
13.5.5	10.2	Tank pressure testing shall be carried out routinely to check for possible tank leaks. Product inventory monitoring shall be integrated into site management procedures to check for any abnormal or unexpected product loss.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	Tank overflow monitoring systems shall be installed and regularly tested. Inlet valves shall be designed to automatically shutdown on exceedance of "high-high level" to prevent over-filling.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
13.5.5	10.2	Pipe leakages shall be routinely checked for by means of a pressure sensitive leak detection system and routine inventory control.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	Drainage from areas of hardstanding shall be treated by means of oil/ water separators prior to discharge to storm drain. All surface drainage shall be fitted with closure valves to provided additional containment and facilitate clean up of any leaks.	Tank farm / Design	Franchisee	TMEIA	Y	Y	Y	N/A	Pending
13.5.5	10.2	The delivery pipeline from the jetty and the supply line to the airport shall be fitted with pressure sensitive leak detectors.	Tank farm / Design	Franchisee	TMEIA	Y	Y		N/A	Pending
<b>Waste Management</b>										
14.7.2	8.3.1	The Contractor shall identify a coordinator for the management of waste.	Contract mobilisation	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	The waste coordinator shall prepare and implement a Waste Management Plan which specifies procedures such as ticketing system, to facilitate tracking of loads and to ensure that illegal disposal of waste does not occur, and protocols for the maintenance of records of the quantities of wastes generated, recycled and disposal.	Contract mobilisation	Contractor	TMEIA, Works Branch Technical Circular No. 5/99 for the Trip-ticket System for Disposal of Construction and Demolition Material		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
14.7.2	8.3.1	The Contractor shall apply for and obtain the appropriate licenses for the disposal of public fill, chemical waste and effluent discharges.	Contract mobilisation	Contractor	TMEIA, Land (Miscellaneous Provisions) Ordinance (Cap 28); Waste Disposal Ordinance (Cap 354); Dumping at Sea Ordinance (Cap 466); Water Pollution Control Ordinance.		Y		N/A	Ongoing
14.7.2	8.3.1	No waste shall be burnt on site.	PAFF Site throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Excavated material shall be used on site for purposes of landscaping or formation of bund walls as far as possible.	All site / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All material shall be reused on site as far as practicable, including formwork plywood, topsoil and excavated material.	All site / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Suitable provisions shall be included in the construction contract to ensure that the Contractor sorts and recycles waste.	Contract preparation stage	HyD	TMEIA	Y			N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location / Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
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 public fill stockpile in Mui Wo, North Lantau or Mui Wo refuse transfer stations / Throughout construction	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Stockpile material shall avoid vegetated areas.	All areas / throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing

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

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

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

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
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	Ongoing
14.7.2	8.3.1	All waste containers shall be in good condition and fitted with lids or covers to prevent waste from escaping or the ingress of water.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All waste containers shall be in a secure area on hardstanding.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	Emergency equipment to deal with any spillage or fire shall be kept on site.	PAFF site/ throughout construction period		TMEIA		Y		N/A	Ongoing

EIA Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
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: <ul style="list-style-type: none"> <li>Clearly labelled;</li> <li>Enclosed on at least 3 sides;</li> <li>Have impermeable floor and bunding sufficient to fully retain any spillage or leakages;</li> <li>Ventilated; and,</li> <li>Covered to prevent rainfall from entering.</li> </ul>	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All types of asbestos including sources (such as clutch linings) shall be treated as chemical waste. Asbestos containing wastes shall be kept separate from other wastes.	PAFF site/ throughout construction period	Contractor	TMEIA		Y		N/A	Ongoing
14.7.2	8.3.1	All leaking containers shall be contained and removed from site as 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 Reference	EM&A Manual Reference	Environmental Protection Measures	Location/ Timing	Implementation Agent	Relevant Standard or Requirement	Implementation Schedule			Maintenance Agency	Implementation Status
						D	C	O		
14.7.2 Section 5	8.3.1	EM&A of waste handling, storage, transportation, disposal procedures and documentation through the site audit programme shall be undertaken.	All areas/ throughout construction period	Contractor	TMELA		Y		N/A	Ongoing

Annex F

QA/QC Results for  
Laboratory Testing of  
Suspended Solids



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0803102
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E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
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Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 6 Mar 2008
Order number	: ---			Date of issue	: 11 Mar 2008
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 HK0803102 supersedes any previous reports with this reference. The completion date of analysis is 7 Mar 2008. 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 HK0803102 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609503)</b>								
HK0803102-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0803102-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	9	10	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609504)</b>								
HK0803102-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0803102-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609505)</b>								
HK0803102-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0803102-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609506)</b>								
HK0803102-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0803102-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609503)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609504)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	105	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609505)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609506)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803288
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E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 7 Mar 2008
Order number	: ---			Date of issue	: 12 Mar 2008
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 HK0803288 supersedes any previous reports with this reference. The completion date of analysis is 8 Mar 2008. 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 HK0803288 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609936)</b>								
HK0803288-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	12	22.0
HK0803288-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609937)</b>								
HK0803288-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
HK0803288-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	11	12	12.7
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609938)</b>								
HK0803288-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
HK0803288-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	17	16	7.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 609939)</b>								
HK0803288-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	16	15	0.0
HK0803288-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	16	19	18.4

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609936)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	109	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609937)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609938)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 609939)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803289
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E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 8 Mar 2008
Order number	: ---			Date of issue	: 12 Mar 2008
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 HK0803289 supersedes any previous reports with this reference. The completion date of analysis is 10 Mar 2008. 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 HK0803289 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610993)</b>								
HK0803289-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	20	24	18.6
HK0803289-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	12	10	15.7
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610994)</b>								
HK0803289-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	20	18	12.0
HK0803289-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	11	12	12.9
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610995)</b>								
HK0803289-056	MPB1 S DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	16	13	20.4
HK0803289-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	14	15	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610996)</b>								
HK0803289-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	19	22	13.5
HK0803289-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	26	28	7.2

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610993)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610994)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	108	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610995)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	110	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610996)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803698
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 9 Mar 2008
Order number	: ---			Date of issue	: 12 Mar 2008
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 HK0803698 supersedes any previous reports with this reference. The completion date of analysis is 10 Mar 2008. 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 HK0803698 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610997)</b>								
HK0803698-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	21	25	19.7
HK0803698-010	MPB1 M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	12	18.7
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610998)</b>								
HK0803698-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	20	18	11.3
HK0803698-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	14	16	16.9
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 610999)</b>								
HK0803698-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	17	17	0.0
HK0803698-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	15	16	11.9
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 611000)</b>								
HK0803698-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	0.0
HK0803698-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	12	13	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610997)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610998)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	85.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 610999)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 611000)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803699
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 10 Mar 2008
Order number	: ---			Date of issue	: 13 Mar 2008
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 HK0803699 supersedes any previous reports with this reference. The completion date of analysis is 12 Mar 2008. 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 HK0803699 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 612397)</b>								
HK0803699-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	9	0.0
HK0803699-016	MPB2 M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	14	14	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 612398)</b>								
HK0803699-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	0.0
HK0803699-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 612399)</b>								
HK0803699-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0803699-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 612400)</b>								
HK0803699-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0803699-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	13	14	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 612397)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 612398)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 612399)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 612400)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803700
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 12 Mar 2008
Order number	: ---			Date of issue	: 17 Mar 2008
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 HK0803700 supersedes any previous reports with this reference. The completion date of analysis is 14 Mar 2008. 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 HK0803700 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 614002)</b>								
HK0803700-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	9	10	12.3
HK0803700-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 614003)</b>								
HK0803700-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0803700-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 614004)</b>								
HK0803700-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	9	20.1
HK0803700-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 614005)</b>								
HK0803700-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0803700-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	2	3	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 614002)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 614003)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 614004)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 614005)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803837
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 13 Mar 2008
Order number	: ---			Date of issue	: 18 Mar 2008
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 HK0803837 supersedes any previous reports with this reference. The completion date of analysis is 17 Mar 2008. 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 HK0803837 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 615066)</b>								
HK0803837-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	2	2	0.0
HK0803837-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 615067)</b>								
HK0803837-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0803837-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 615068)</b>								
HK0803837-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0803837-068	IMO1 S DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 615069)</b>								
HK0803837-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0803837-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	3	4	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 615066)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 615067)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 615068)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 615069)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803838
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 14 Mar 2008
Order number	: ---			Date of issue	: 19 Mar 2008
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 HK0803838 supersedes any previous reports with this reference. The completion date of analysis is 17 Mar 2008. 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 HK0803838 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616234)</b>								
HK0803838-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0803838-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	2	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616235)</b>								
HK0803838-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	2	2	0.0
HK0803838-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	11	10	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616236)</b>								
HK0803838-058	MPB1 M DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0803838-060	MPB1 B DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	14	16	13.2
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616237)</b>								
HK0803838-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	8	15.7
HK0803838-100	C3 (NM6) M DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616234)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616235)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616236)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616237)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0803992
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 15 Mar 2008
Order number	: ---			Date of issue	: 19 Mar 2008
C-O-C number	: ---			No. of samples	- Received : 62
Site	: ---				- Analysed : 62

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0803992 supersedes any previous reports with this reference. The completion date of analysis is 18 Mar 2008. 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 HK0803992 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616245)</b>								
HK0803992-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0803992-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	3	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616246)</b>								
HK0803992-047	C2 (NM5) B ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0803992-059	MPB1 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616247)</b>								
HK0803992-069	IMO1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0803992-091	C1 (NM3) S MF	EA025: Suspended Solids (SS)	----	1	mg/L	3	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616248)</b>								
HK0803992-101	C3 (NM6) B MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616245)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616246)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616247)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	96.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616248)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0804092
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 16 Mar 2008
Order number	: ---			Date of issue	: 19 Mar 2008
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 HK0804092 supersedes any previous reports with this reference. The completion date of analysis is 18 Mar 2008. 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 HK0804092 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616249)</b>								
HK0804092-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804092-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616250)</b>								
HK0804092-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804092-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616251)</b>								
HK0804092-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	0.0
HK0804092-072	IMO1 B DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 616252)</b>								
HK0804092-097	C3 (NM6) S MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0804092-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616249)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616250)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616251)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 616252)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0804094
Address	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 17 Mar 2008
Order number	: ---			Date of issue	: 20 Mar 2008
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 HK0804094 supersedes any previous reports with this reference. The completion date of analysis is 19 Mar 2008. 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 HK0804094 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 617301)</b>								
HK0804094-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804094-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 617302)</b>								
HK0804094-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804094-046	C2 (NM5) M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 617303)</b>								
HK0804094-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0
HK0804094-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 617304)</b>								
HK0804094-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0804094-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 617301)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 617302)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 617303)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	104	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 617304)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS JOANNA KWAN	Contact	: Alice Wong	Work Order	: HK0804208
Address	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Joanna.kwan@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 18 Mar 2008
Order number	: ---			Date of issue	: 20 Mar 2008
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 HK0804208 supersedes any previous reports with this reference. The completion date of analysis is 20 Mar 2008. 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 HK0804208 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 618027)</b>								
HK0804208-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	11	10	0.0
HK0804208-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	12.9
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 618028)</b>								
HK0804208-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0804208-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 618029)</b>								
HK0804208-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	10	12	14.4
HK0804208-068	IMO1 S DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 618030)</b>								
HK0804208-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804208-102	C3 (NM6) B DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 618027)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 618028)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	105	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 618029)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 618030)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804218
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 19 Mar 2008
Order number	: ---			Date of issue	: 26 Mar 2008
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 HK0804218 supersedes any previous reports with this reference. The completion date of analysis is 25 Mar 2008. 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 HK0804218 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619382)</b>								
HK0804218-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0804218-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	13.6
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619383)</b>								
HK0804218-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0804218-046	C2 (NM5) M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619384)</b>								
HK0804218-058	MPB1 M DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	11	10	11.6
HK0804218-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619385)</b>								
HK0804218-078	IMO2 B DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0804218-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	10	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619382)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619383)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619384)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619385)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804326
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 20 Mar 2008
Order number	: ---			Date of issue	: 27 Mar 2008
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 HK0804326 supersedes any previous reports with this reference. The completion date of analysis is 26 Mar 2008. 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 HK0804326 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619888)</b>								
HK0804326-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	8	13.4
HK0804326-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619889)</b>								
HK0804326-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	9	8	14.0
HK0804326-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619890)</b>								
HK0804326-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804326-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 619891)</b>								
HK0804326-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804326-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	8	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619888)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619889)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619890)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 619891)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804220
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 21 Mar 2008
Order number	: ---			Date of issue	: 27 Mar 2008
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 HK0804220 supersedes any previous reports with this reference. The completion date of analysis is 26 Mar 2008. 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 HK0804220 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620008)</b>								
HK0804220-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	16	16	0.0
HK0804220-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	9	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620009)</b>								
HK0804220-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0804220-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	11	11	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620010)</b>								
HK0804220-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804220-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620011)</b>								
HK0804220-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0804220-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	11	11	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620008)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620009)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620010)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620011)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	101	----	85	115	----	----



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804219
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 22 Mar 2008
Order number	: ---			Date of issue	: 27 Mar 2008
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 HK0804219 supersedes any previous reports with this reference. The completion date of analysis is 26 Mar 2008. 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 HK0804219 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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*Signatory*

**Fung Lim Chee, Richard**

*Position*

**General Manager**

*Authorised results for:-*

**Inorganics**



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620004)</b>								
HK0804219-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0804219-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620005)</b>								
HK0804219-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	13	12	14.3
HK0804219-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620006)</b>								
HK0804219-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	12	13	0.0
HK0804219-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	12	12	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620007)</b>								
HK0804219-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	10	10	0.0
HK0804219-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620004)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620005)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620006)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620007)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.5	----	85	115	----	----



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804328
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 23 Mar 2008
Order number	: ---			Date of issue	: 27 Mar 2008
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 HK0804328 supersedes any previous reports with this reference. The completion date of analysis is 26 Mar 2008. 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 HK0804328 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620012)</b>								
HK0804328-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804328-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620013)</b>								
HK0804328-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	0.0
HK0804328-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620014)</b>								
HK0804328-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	8	15.7
HK0804328-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	21.5
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620015)</b>								
HK0804328-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	3	4	0.0
HK0804328-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	5	22.8

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620012)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	107	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620013)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620014)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	103	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620015)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804329
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 24 Mar 2008
Order number	: ---			Date of issue	: 27 Mar 2008
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 HK0804329 supersedes any previous reports with this reference. The completion date of analysis is 26 Mar 2008. 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 HK0804329 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620021)</b>								
HK0804329-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804329-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	9	11.5
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620022)</b>								
HK0804329-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0804329-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	15.4
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620023)</b>								
HK0804329-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	7	19.4
HK0804329-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 620024)</b>								
HK0804329-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0804329-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620021)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620022)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620023)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 620024)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804330
Address	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 25 Mar 2008
Order number	: ---			Date of issue	: 28 Mar 2008
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 HK0804330 supersedes any previous reports with this reference. The completion date of analysis is 28 Mar 2008. 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 HK0804330 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 621723)</b>								
HK0804330-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	10	9	14.2
HK0804330-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 621724)</b>								
HK0804330-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0804330-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 621725)</b>								
HK0804330-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0
HK0804330-069	IMO1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 621726)</b>								
HK0804330-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804330-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	11	11	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 621723)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 621724)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	100	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 621725)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 621726)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804331
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 26 Mar 2008
Order number	: ---			Date of issue	: 31 Mar 2008
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 HK0804331 supersedes any previous reports with this reference. The completion date of analysis is 28 Mar 2008. 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 HK0804331 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 622675)</b>								
HK0804331-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804331-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 622676)</b>								
HK0804331-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0
HK0804331-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 622677)</b>								
HK0804331-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	6	22.0
HK0804331-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 622678)</b>								
HK0804331-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	6	20.7
HK0804331-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 622675)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 622676)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 622677)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	107	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 622678)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804630
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 27 Mar 2008
Order number	: ---			Date of issue	: 1 Apr 2008
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 HK0804630 supersedes any previous reports with this reference. The completion date of analysis is 31 Mar 2008. 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 HK0804630 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 623142)</b>								
HK0804630-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804630-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 623143)</b>								
HK0804630-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
HK0804630-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 623144)</b>								
HK0804630-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804630-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 623145)</b>								
HK0804630-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
HK0804630-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	3	3	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 623142)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 623143)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 623144)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 623145)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.5	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804739
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 28 Mar 2008
Order number	: ---			Date of issue	: 2 Apr 2008
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 HK0804739 supersedes any previous reports with this reference. The completion date of analysis is 31 Mar 2008. 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 HK0804739 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624079)</b>								
HK0804739-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
HK0804739-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624080)</b>								
HK0804739-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	9	9	0.0
HK0804739-046	C2 (NM5) M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624081)</b>								
HK0804739-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804739-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624082)</b>								
HK0804739-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804739-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624079)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	106	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624080)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624081)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624082)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.5	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804738
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 29 Mar 2008
Order number	: ---			Date of issue	: 2 Apr 2008
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 HK0804738 supersedes any previous reports with this reference. The completion date of analysis is 1 Apr 2008. 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 HK0804738 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624758)</b>								
HK0804738-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804738-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	3	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624761)</b>								
HK0804738-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804738-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	7	7	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624762)</b>								
HK0804738-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0
HK0804738-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624763)</b>								
HK0804738-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804738-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624758)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	99.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624761)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624762)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	94.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624763)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----



### CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804757
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: Karen.Lui@erm.com	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 30 Mar 2008
Order number	: ---			Date of issue	: 2 Apr 2008
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 HK0804757 supersedes any previous reports with this reference. The completion date of analysis is 1 Apr 2008. 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 HK0804757 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
Water sample(s) analysed and reported on an as received basis.**

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*Signatory*

**Fung Lim Chee, Richard**

*Position*

**General Manager**

*Authorised results for:-*

**Inorganics**



**Quality Control - Laboratory Duplicate (DUP) Results**

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624770)</b>								
HK0804757-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804757-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624771)</b>								
HK0804757-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0804757-046	C2 (NM5) M DUP ME	EA025: Suspended Solids (SS)	----	1	mg/L	6	6	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624772)</b>								
HK0804757-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	6	5	21.7
HK0804757-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 624773)</b>								
HK0804757-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	5	4	0.0
HK0804757-100	C3 (NM6) M DUP MF	EA025: Suspended Solids (SS)	----	1	mg/L	8	8	0.0

**Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results**

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624770)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	93.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624771)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624772)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 624773)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----



## CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: MS KAREN LUI	Contact	: Alice Wong	Work Order	: HK0804741
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Telephone	: 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: 2723 5660	Facsimile	: +852 2610 2021		
Project	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	Quote number	: ---	Date received	: 31 Mar 2008
Order number	: ---			Date of issue	: 3 Apr 2008
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 HK0804741 supersedes any previous reports with this reference. The completion date of analysis is 2 Apr 2008. 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 HK0804741 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
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 Hona Kona. Chapter 553. Section 6.

<i>Signatory</i>	<i>Position</i>	<i>Authorised results for:-</i>
Fung Lim Chee, Richard	General Manager	Inorganics



### Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER				Duplicate (DUP) Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 625171)</b>								
HK0804741-001	MP S ME	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804741-013	MPB2 S ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 625172)</b>								
HK0804741-023	IMO1 B ME	EA025: Suspended Solids (SS)	----	1	mg/L	5	5	0.0
HK0804741-045	C2 (NM5) M ME	EA025: Suspended Solids (SS)	----	1	mg/L	2	2	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 625174)</b>								
HK0804741-057	MPB1 M MF	EA025: Suspended Solids (SS)	----	1	mg/L	7	6	0.0
HK0804741-067	IMO1 S MF	EA025: Suspended Solids (SS)	----	1	mg/L	3	3	0.0
<b>EA/ED: Physical and Aggregate Properties (QC Lot: 625175)</b>								
HK0804741-077	IMO2 B MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	4	0.0
HK0804741-099	C3 (NM6) M MF	EA025: Suspended Solids (SS)	----	1	mg/L	4	3	0.0

### Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
						SCS	DCS	Low	High	Value	Control Limit
<b>EA/ED: Physical and Aggregate Properties (QCLot: 625171)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	95.5	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 625172)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	98.0	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 625174)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	102	----	85	115	----	----
<b>EA/ED: Physical and Aggregate Properties (QCLot: 625175)</b>											
EA025: Suspended Solids (SS)	----	2	mg/L	<2	20 mg/L	97.0	----	85	115	----	----

Annex G

## Impact Water Quality Monitoring Results

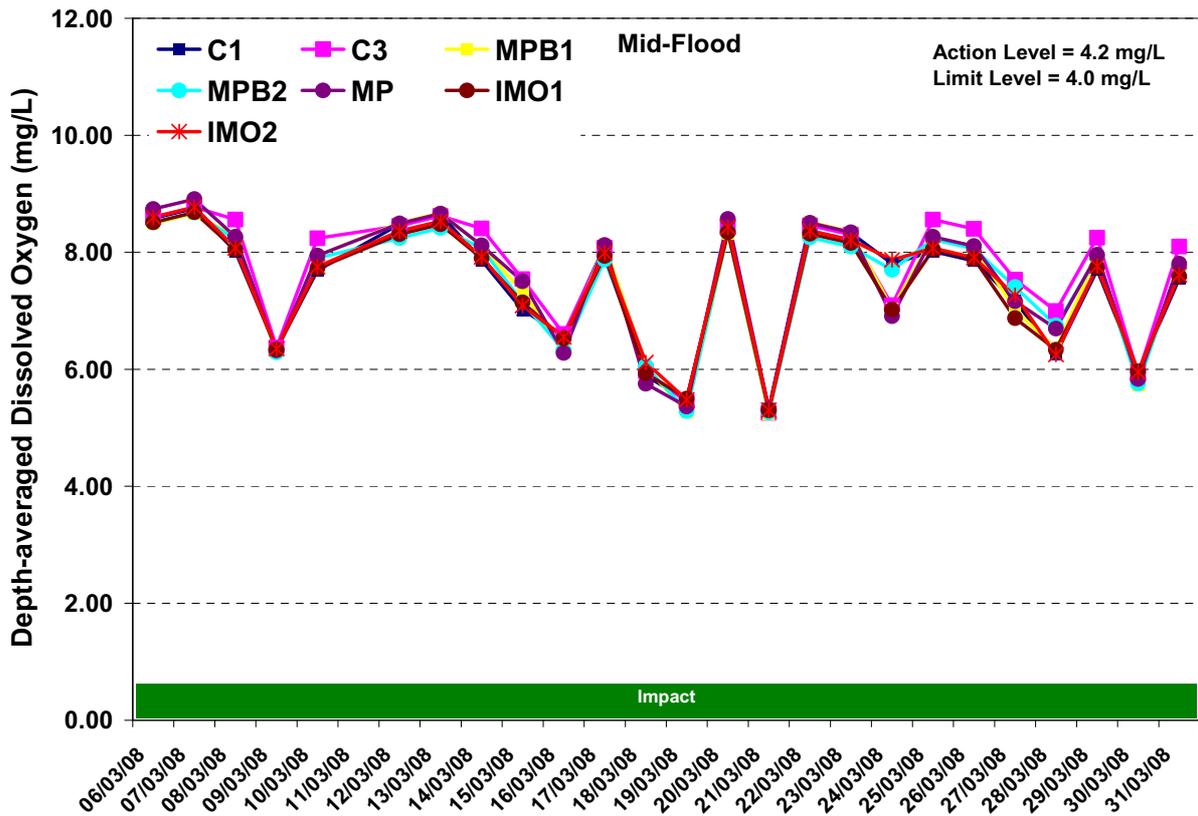
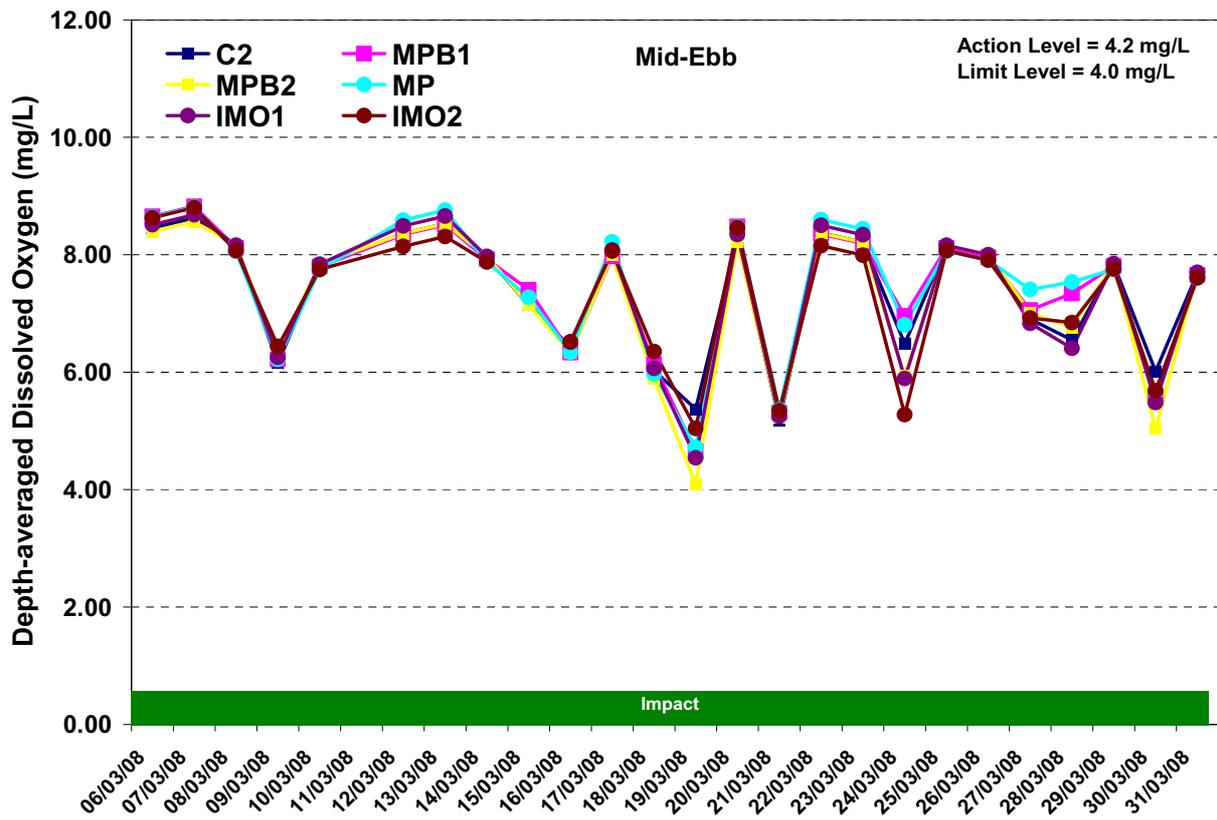


Figure G1 Dissolved oxygen concentration (depth-averaged) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 March and 31 March 2008

Ref: 0018105\_Annex G\_water graphs.doc



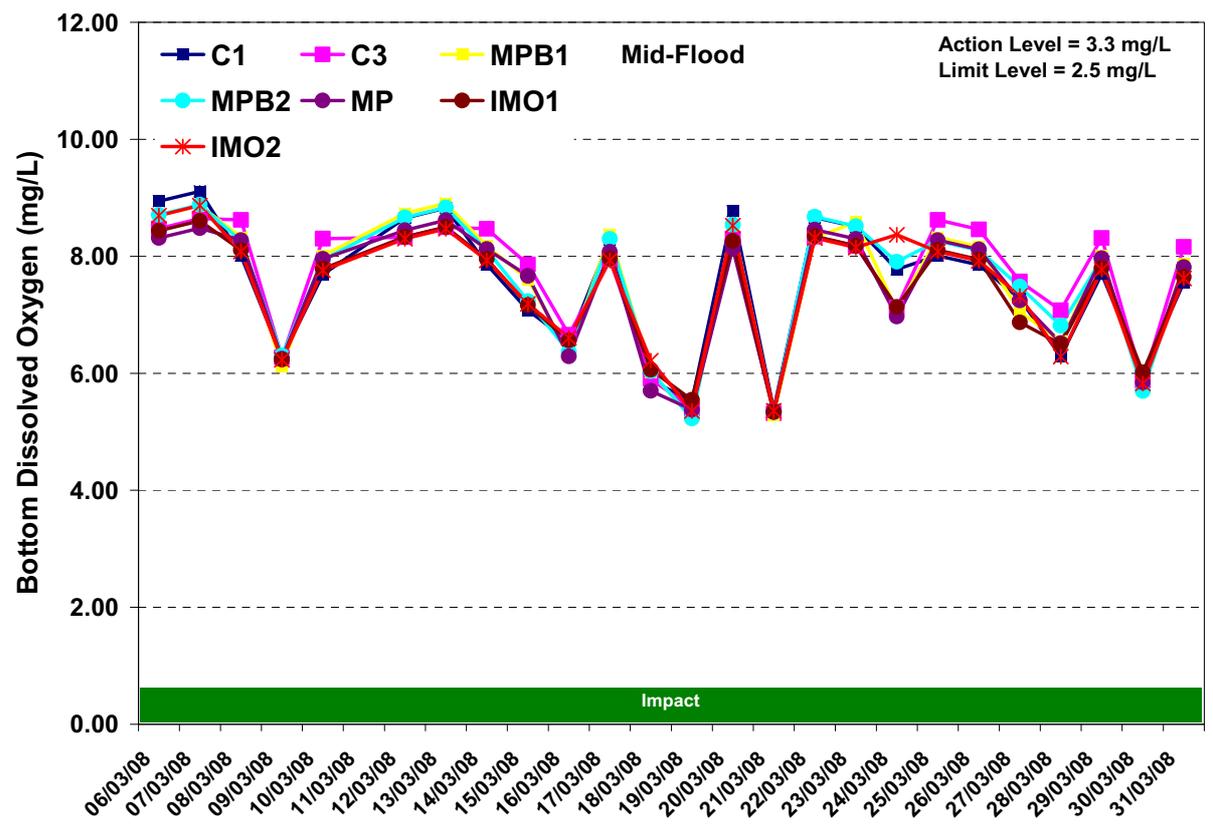
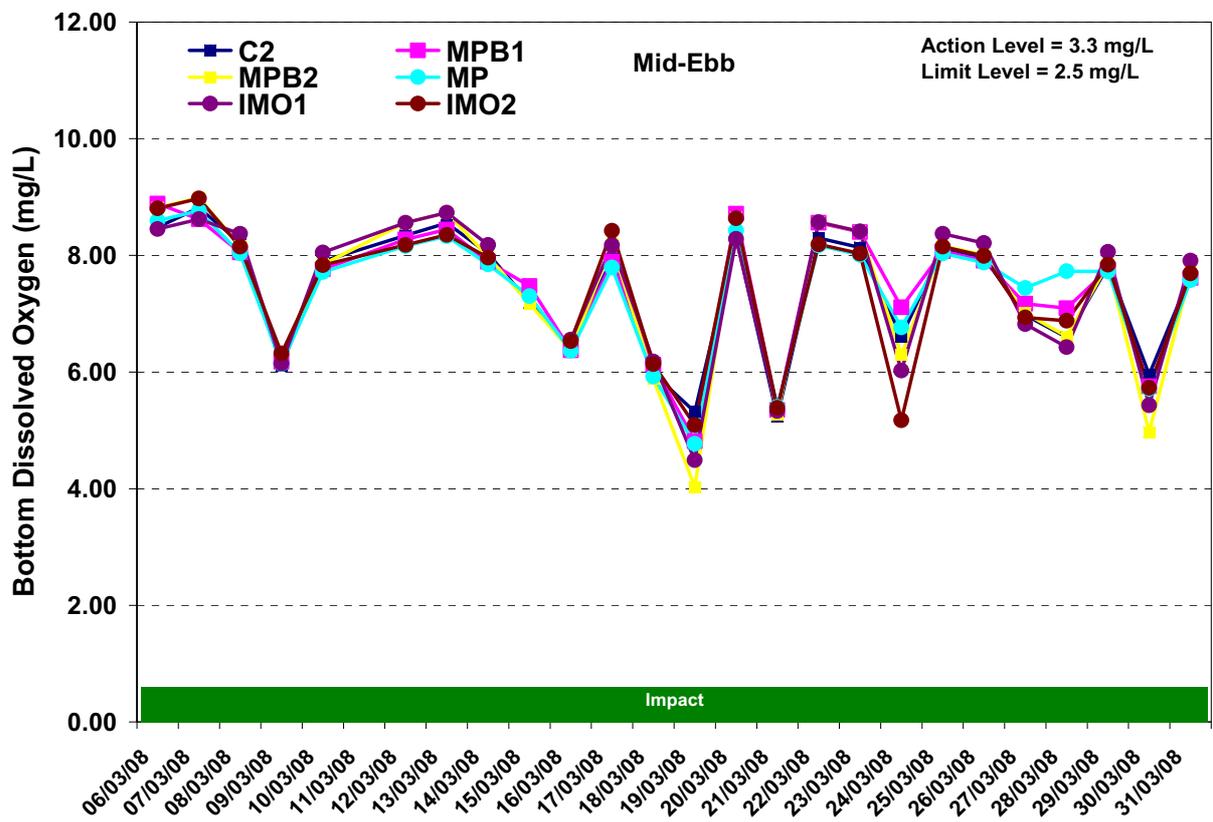


Figure G2 Dissolved oxygen concentration (bottom) (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 March and 31 March 2008

Ref: 0018105\_Annex G\_water graphs.doc



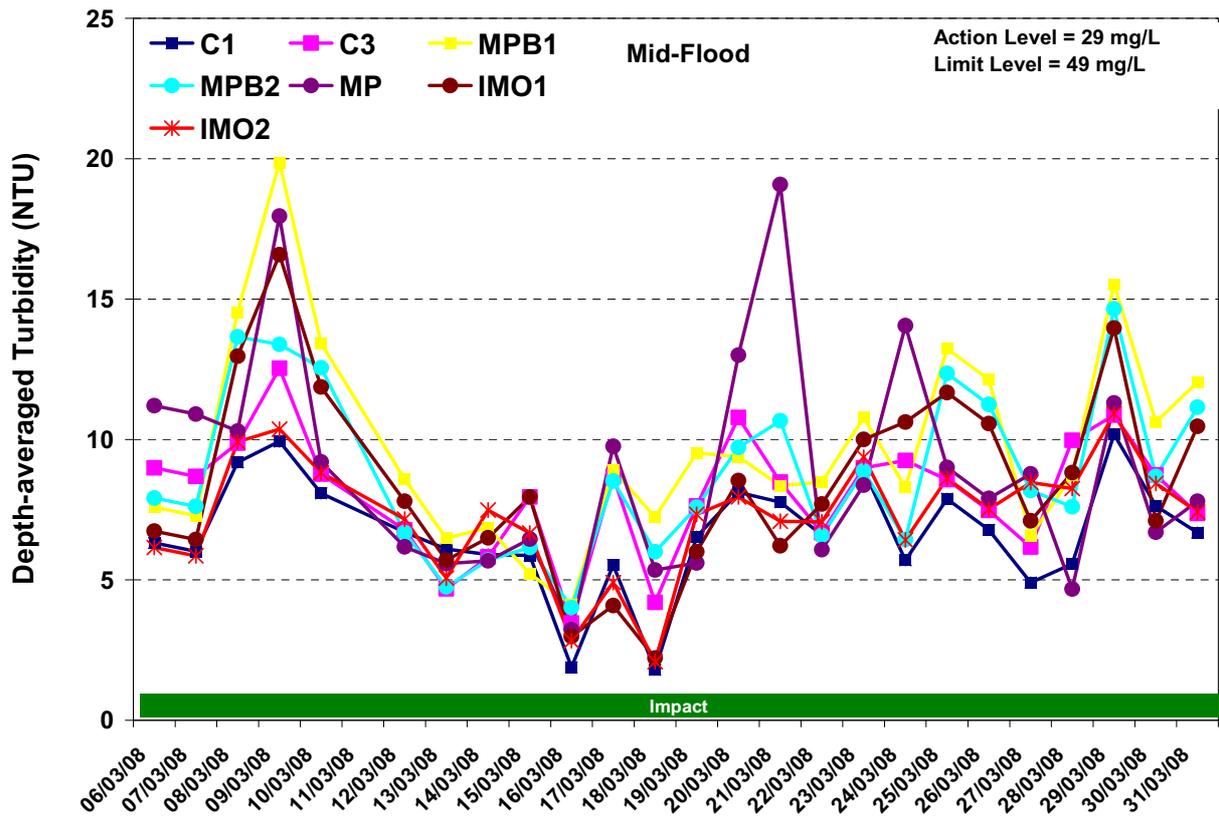
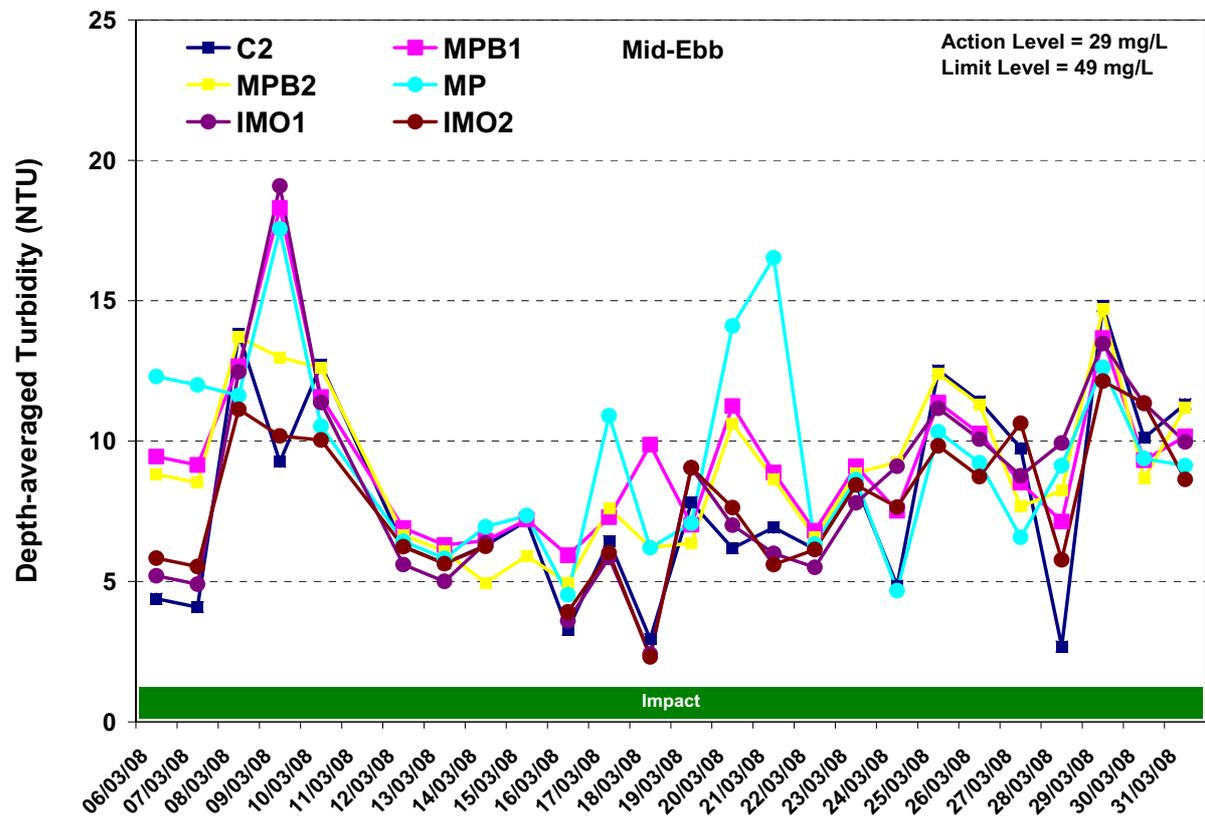


Figure G3 Depth-averaged turbidity (NTU) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 March and 31 March 2008

Ref: 0018105\_Annex G\_water graphs.doc



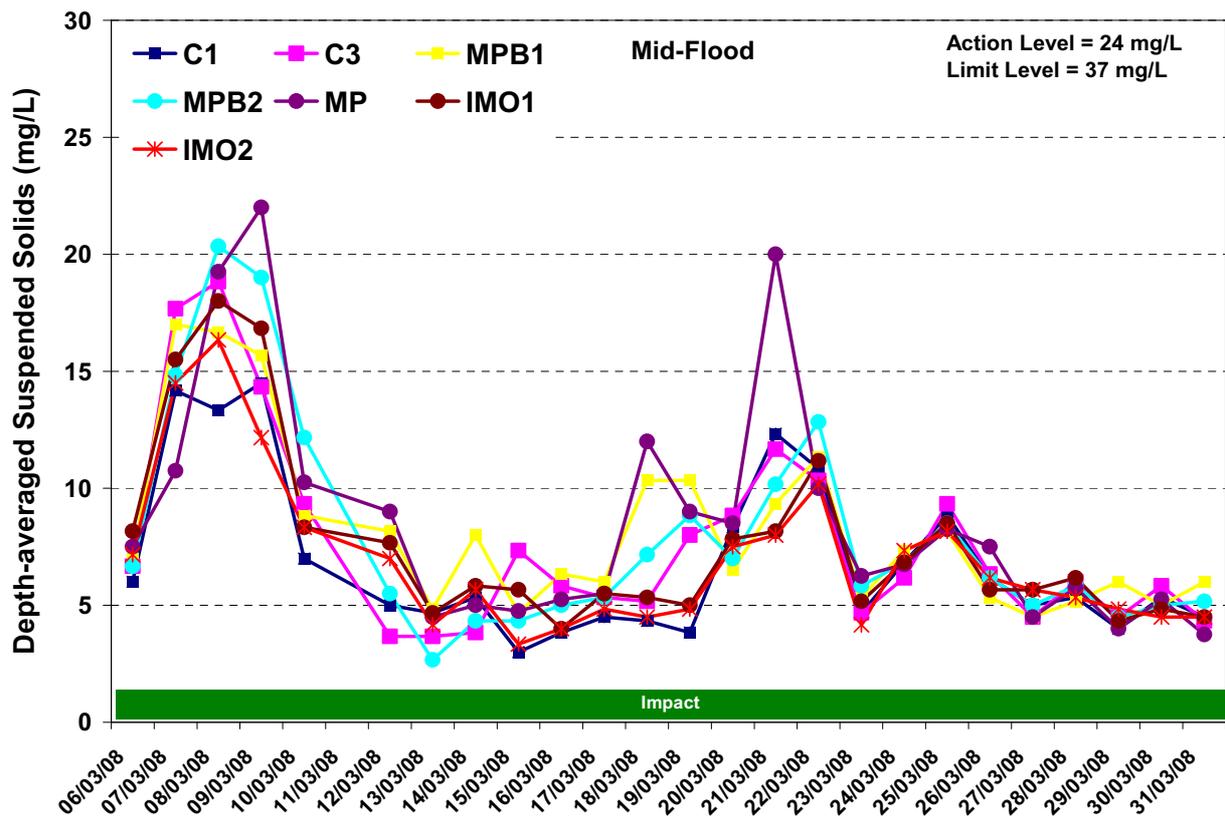
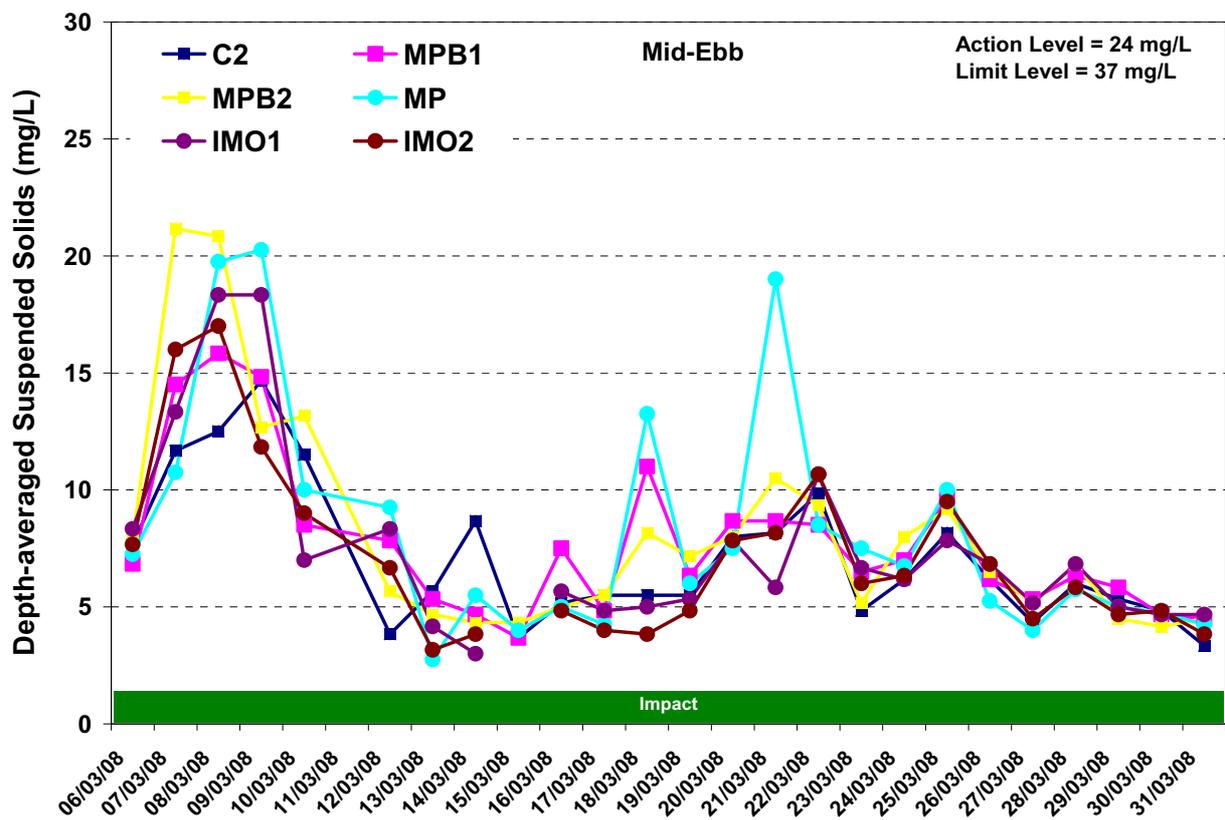


Figure G4 Depth-averaged suspended solids concentration (mg/L) of water samples from the eight sampling locations at mid-ebb and mid-flood between 1 March and 31 March 2008

Ref: 0018105\_Annex G\_water graphs.doc







Sampling Date	3/7/2008
Weather & Ambient Temperature	Fine, 23C

Station	C2 (NM5)							
Time (hh:mm)	13:18-13:20							
Water Depth (m)	20.0							
Monitoring Depth (m)	1.0		10.0		19.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	15.2	16.3	16.2	16.2	16.2	16.2	16.03	-
Salinity (ppt)	33.9	32.9	33.7	33.6	33.8	33.8	33.61	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.59	-
D.O. Saturation (%)	101.6	98.8	98.8	104.3	103.6	100.3	101.23	-
D.O. (mg/L)	8.8	8.4	8.4	8.9	8.8	8.5	8.63	8.65
Turbidity (NTU)	3.8	4.0	4.5	4.5	3.9	3.8	4.08	-
SS (mg/L)	10.0	12.0	11.0	11.0	12.0	14.0	11.67	-
Remarks	Dredging works was observed.							

Station	IMO1						Co-ordinates	
Time (hh:mm)	12:58-13:00						Northing	Easting
Water Depth (m)	20.7						22.22.108	113.55.015
Monitoring Depth (m)	1.0		10.4		19.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.2	17.3	16.4	16.4	16.4	16.4	16.65	-
Salinity (ppt)	33.0	33.0	30.6	33.3	33.5	33.3	32.79	-
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.62	-
D.O. Saturation (%)	104.4	106.1	101.7	100.3	100.4	103.0	102.65	-
D.O. (mg/L)	8.7	8.8	8.8	8.5	8.5	8.73	8.68	8.62
Turbidity (NTU)	4.5	4.5	5.1	5.0	5.1	5.2	4.90	-
SS (mg/L)	9.0	14.0	12.0	16.0	14.0	15.0	13.33	-
Remarks	Dredging works was observed.							

Station	IMO2						Co-ordinates	
Time (hh:mm)	12:47-12:48						Northing	Easting
Water Depth (m)	21.2						22.21.561	113.55.690
Monitoring Depth (m)	1.0		10.6		20.2			
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	16.5	16.4	16.3	16.61	-
Salinity (ppt)	33.0	33.0	33.4	33.7	33.7	33.9	33.47	-
pH	7.6	7.6	7.7	7.7	7.7	7.7	7.65	-
D.O. Saturation (%)	105.5	102.5	102.2	104.3	105.5	107.1	104.52	-
D.O. (mg/L)	8.8	8.6	8.6	8.8	8.9	9.04	8.80	8.98
Turbidity (NTU)	5.2	5.4	5.8	5.5	5.7	5.6	5.53	-
SS (mg/L)	12.0	20.0	14.0	18.0	15.0	17.0	16.00	-
Remarks	Dredging works was observed.							

Tide	Mid-Ebb
------	---------

Station	MPB1							
Time (hh:mm)	13:42-13:43							
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)	16.7	16.6	16.2	16.2	16.2	16.4	16.37	-
Salinity (ppt)	33.1	33.0	33.2	33.0	33.3	33.1	33.13	-
pH	7.5	7.5	7.6	7.5	7.6	7.5	7.54	-
D.O. Saturation (%)	102.4	99.2	107.8	101.5	100.9	112.6	104.07	-
D.O. (mg/L)	8.6	8.4	9.2	8.7	8.6	9.5	8.82	9.06
Turbidity (NTU)	7.5	7.6	9.9	9.9	10.2	9.8	9.15	-
SS (mg/L)	14.0	12.0	16.0	14.0	17.0	14.0	14.50	-
Remarks	Dredging works was observed.							

Station	MPB2							
Time (hh:mm)	13:53-13:54							
Water Depth (m)	9.4							
Monitoring Depth (m)	1.0		4.7		8.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.2	16.3	16.1	16.1	16.1	16.1	16.16	-
Salinity (ppt)	32.9	32.9	33.1	33.1	33.3	33.3	33.09	-
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.48	-
D.O. Saturation (%)	91.6	105.6	96.9	97.0	101.3	109.8	100.37	-
D.O. (mg/L)	7.9	9.0	8.3	8.3	8.6	9.3	8.56	8.99
Turbidity (NTU)	6.9	6.6	9.2	8.6	9.9	9.9	8.52	-
SS (mg/L)	14.0	18.0	19.0	19.0	31.0	26.0	21.17	-
Remarks	Dredging works was observed.							

Station	MP							
Time (hh:mm)	13:35-13:35							
Water Depth (m)	6.0							
Monitoring Depth (m)	1.0		3.0		5.0			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	16.5	16.5	-	-	16.5	16.5	16.47	-
Salinity (ppt)	32.6	32.2	-	-	32.9	33.4	32.77	-
pH	7.6	7.6	-	-	7.6	7.5	7.55	-
D.O. Saturation (%)	103.8	104.7	-	-	97.2	109.9	103.90	-
D.O. (mg/L)	8.8	8.9	-	-	8.3	9.3	8.81	8.77
Turbidity (NTU)	12.0	12.1	-	-	11.9	12.0	12.00	-
SS (mg/L)	10.0	10.0	-	-	13.0	10.0	10.75	-
Remarks	Dredging works was observed.							

**Compliance with Action and Limit Level**

Parameter	As in EM&A		C2*130%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
DO (Depth-averaged)	4.2	4.0	8.7	8.7	N	N	N	N
DO (Bottom)	3.3	2.5	8.6	8.6	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	5.3	NA	N	N	N	N
SS (Depth-averaged)	24.0	37.0	15.2	15.2	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

Sampling Date	3/7/2008
Weather & Ambient Temperature	Fine, 20C

Station	C1 (NM3)								
Time (hh:mm)	17:59-18:00								
Water Depth (m)	16.3								
Monitoring Depth (m)	1.0		8.2		15.3				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.0	16.2	16.2	15.7	16.2	15.8	16.01	-	
Salinity (ppt)	34.1	34.0	34.0	34.3	34.0	34.4	34.13	-	
pH	7.7	7.7	7.7	7.7	7.7	7.7	7.67	-	
D.O. Saturation (%)	101.6	101.0	98.1	102.7	108.3	106.4	103.02	-	
D.O. (mg/L)	8.6	8.6	8.3	8.8	9.2	9.1	8.75	9.11	
Turbidity (NTU)	5.1	5.0	5.7	6.1	7.3	6.9	6.02	-	
SS (mg/L)	13.0	13.0	13.0	18.0	14.0	14.0	14.17	-	
Remarks	Dredging works was observed.								

Station	C3 (NM6)								
Time (hh:mm)	16:42-16:43								
Water Depth (m)	6.7								
Monitoring Depth (m)	1.0		3.4		5.7				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.0	16.0	16.0	16.0	16.0	16.0	16.00	-	
Salinity (ppt)	33.4	33.4	33.4	33.3	33.3	33.5	33.38	-	
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.49	-	
D.O. Saturation (%)	104.0	98.3	103.3	108.4	98.5	103.9	102.73	-	
D.O. (mg/L)	8.9	8.4	8.8	9.2	8.4	8.9	8.77	8.65	
Turbidity (NTU)	8.0	7.8	8.5	8.8	9.5	9.5	8.68	-	
SS (mg/L)	19.0	24.0	16.0	15.0	19.0	13.0	17.67	-	
Remarks	Dredging works was observed.								

Station	IMO1							Co-ordinates	
Time (hh:mm)	17:33-17:34							Northing	Easting
Water Depth (m)	20.2							22.22.106	113.55.026
Monitoring Depth (m)	1.0		10.1		19.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.4	16.4	17.0	16.3	16.3	16.4	16.47	-	
Salinity (ppt)	33.4	33.4	33.2	33.2	33.3	33.7	33.36	-	
pH	7.6	7.6	7.6	7.6	7.6	7.6	7.62	-	
D.O. Saturation (%)	103.9	104.3	103.3	102.9	100.4	102.6	102.90	-	
D.O. (mg/L)	8.8	8.7	8.6	8.7	8.5	8.7	8.68	8.61	
Turbidity (NTU)	5.8	5.6	6.6	6.7	7.2	6.7	6.43	-	
SS (mg/L)	17.0	14.0	16.0	16.0	16.0	14.0	15.50	-	
Remarks	Dredging works was observed.								

Station	IMO2							Co-ordinates	
Time (hh:mm)	17:44-17:45							Northing	Easting
Water Depth (m)	21.5							22.21.560	113.55.687
Monitoring Depth (m)	1.0		10.7		20.5				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.9	16.9	16.5	16.5	16.4	16.4	16.61	-	
Salinity (ppt)	32.5	33.0	33.5	32.9	33.8	33.7	33.21	-	
pH	7.6	7.6	7.6	7.7	7.7	7.7	7.65	-	
D.O. Saturation (%)	112.8	99.3	98.9	102.7	109.6	100.5	103.97	-	
D.O. (mg/L)	9.5	8.3	8.4	8.7	9.2	8.5	8.77	8.87	
Turbidity (NTU)	5.8	5.9	5.9	6.1	5.8	5.6	5.85	-	
SS (mg/L)	17.0	11.0	16.0	13.0	16.0	14.0	14.50	-	
Remarks	Dredging works was observed.								

Tide	Mid-Flood
------	-----------

Station	MPB1								
Time (hh:mm)	17:10-17:11								
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)	16.7	16.6	16.3	16.2	16.4	16.4	16.43	-	
Salinity (ppt)	32.8	33.0	33.2	33.2	33.0	33.1	33.04	-	
pH	7.5	7.5	7.5	7.5	7.5	7.5	7.53	-	
D.O. Saturation (%)	101.8	92.7	97.5	111.3	104.6	104.9	102.13	-	
D.O. (mg/L)	8.6	7.9	8.3	9.4	8.9	8.9	8.66	8.87	
Turbidity (NTU)	5.7	5.9	7.7	7.9	8.3	8.2	7.28	-	
SS (mg/L)	14.0	16.0	14.0	16.0	20.0	22.0	14.50	-	
Remarks	Dredging works was observed.								

Station	MPB2								
Time (hh:mm)	16:58-16:59								
Water Depth (m)	9.1								
Monitoring Depth (m)	1.0		4.6		8.1				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.1	16.2	16.1	16.1	16.1	16.1	16.12	-	
Salinity (ppt)	32.9	32.9	33.2	33.0	33.2	33.3	33.07	-	
pH	7.5	7.4	7.5	7.5	7.5	7.5	7.46	-	
D.O. Saturation (%)	93.1	95.6	108.2	104.9	105.2	103.3	101.72	-	
D.O. (mg/L)	8.0	8.2	9.2	9.0	9.0	8.8	8.68	8.88	
Turbidity (NTU)	7.0	6.6	8.2	7.6	8.1	8.2	7.62	-	
SS (mg/L)	13.0	16.0	12.0	17.0	17.0	14.0	21.17	-	
Remarks	Dredging works was observed.								

Station	MP								
Time (hh:mm)	17:20-17:20								
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)	16.4	16.5	-	-	16.5	16.5	16.45	-	
Salinity (ppt)	32.6	32.6	-	-	32.6	32.6	32.62	-	
pH	7.6	7.6	-	-	7.6	7.6	7.56	-	
D.O. Saturation (%)	110.5	109.7	-	-	97.8	101.5	104.88	-	
D.O. (mg/L)	9.4	9.3	-	-	8.3	8.6	8.91	8.48	
Turbidity (NTU)	10.9	10.8	-	-	11.0	10.9	10.90	-	
SS (mg/L)	10.0	10.0	-	-	11.0	12.0	10.75	-	
Remarks	Dredging works was observed.								

Compliance with Action and Limit Level

Parameter	As in EM&A		Mean(C1+C3)*130%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Depth-averaged)	4.2	4.0	8.9	8.9	N	N	N	N
DO (Bottom)	3.3	2.5	8.8	8.8	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	9.6	NA	N	N	N	N
SS (Depth-averaged)	24.0	37.0	20.7	20.7	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

Sampling Date	08/03/2008
Weather & Ambient Temperature	Fine, 21C

Station	C2 (NM5)							
Time (hh:mm)	15:59-16:00							
Water Depth (m)	20.2							
Monitoring Depth (m)	1.0		10.1		19.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.6	19.6	19.5	19.5	19.5	19.5	19.54	-
Salinity (ppt)	37.9	38.8	38.4	39.7	38.9	38.0	38.62	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	-
D.O. Saturation (%)	91.7	89.1	95.3	89.4	90.3	111.8	94.60	-
D.O. (mg/L)	6.7	6.5	7.0	6.5	6.6	8.2	6.91	7.40
Turbidity (NTU)	3.2	2.8	3.3	3.3	3.1	3.4	3.18	-
SS (mg/L)	13.0	14.0	11.0	12.0	14.0	11.0	12.50	-
Remarks	Dredging works was observed.							

Station	IMO1						Co-ordinates	
Time (hh:mm)	15:30-15:31						Northing	Easting
Water Depth (m)	9.4						22.21.384	113.53.413
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	19.5	19.5	19.5	19.4	19.47	-
Salinity (ppt)	37.4	37.4	37.7	37.6	37.7	37.7	37.61	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	-
D.O. Saturation (%)	88.7	88.9	88.8	89.0	88.7	89.7	88.97	-
D.O. (mg/L)	6.5	6.6	6.5	6.5	6.5	6.61	6.55	6.57
Turbidity (NTU)	15.4	15.6	20.5	19.8	20.9	20.2	18.73	-
SS (mg/L)	13.0	15.0	19.0	22.0	20.0	21.0	18.33	-
Remarks	Dredging works was observed.							

Station	IMO2						Co-ordinates	
Time (hh:mm)	15:17-15:18						Northing	Easting
Water Depth (m)	9.2						22.21.039	113.53.552
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)	19.6	19.6	19.5	19.4	19.2	19.4	19.44	-
Salinity (ppt)	36.3	36.2	36.8	37.0	37.3	37.5	36.85	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	-
D.O. Saturation (%)	91.8	97.8	112.8	92.5	136.1	92.0	103.83	-
D.O. (mg/L)	6.8	7.2	8.3	6.8	10.1	6.78	7.68	8.43
Turbidity (NTU)	11.9	11.8	16.1	16.2	15.9	15.5	14.57	-
SS (mg/L)	11.0	14.0	17.0	19.0	19.0	22.0	17.00	-
Remarks	Dredging works was observed.							

Tide	Mid-Ebb
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Station	MPB1							
Time (hh:mm)	15:24-15:24							
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)	19.5	19.5	19.3	19.4	19.1	19.5	19.37	-
Salinity (ppt)	36.4	36.6	37.3	37.3	37.5	37.3	37.06	-
pH	8.2	8.2	8.2	8.2	8.3	8.2	8.22	-
D.O. Saturation (%)	106.3	93.5	116.5	94.9	134.0	96.1	106.88	-
D.O. (mg/L)	7.9	6.9	8.6	7.0	9.9	7.1	7.91	8.51
Turbidity (NTU)	6.6	6.5	8.4	8.0	8.2	8.1	7.63	-
SS (mg/L)	17.0	14.0	17.0	15.0	18.0	14.0	15.83	-
Remarks	Dredging works was observed.							

Station	MPB2							
Time (hh:mm)	15:11-15:12							
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)	19.6	19.7	19.5	19.5	19.5	19.3	19.52	-
Salinity (ppt)	36.2	36.2	36.8	36.9	37.4	37.4	36.81	-
pH	8.2	8.1	8.2	8.2	8.2	8.2	8.19	-
D.O. Saturation (%)	92.0	94.7	98.6	92.4	91.3	103.6	95.43	-
D.O. (mg/L)	6.8	7.0	7.3	6.8	6.7	7.7	7.05	7.19
Turbidity (NTU)	8.1	7.8	9.1	8.8	9.0	9.6	8.73	-
SS (mg/L)	12.0	13.0	18.0	22.0	30.0	30.0	20.83	-
Remarks	Dredging works was observed.							

Station	MP							
Time (hh:mm)	15:38-15:38							
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)	19.5	19.6	19.5	19.4	19.6	19.2	19.45	-
Salinity (ppt)	36.8	36.6	37.0	37.0	36.9	35.7	36.66	-
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.20	-
D.O. Saturation (%)	118.7	95.7	99.6	127.0	107.1	150.3	116.40	-
D.O. (mg/L)	8.8	7.1	7.3	9.4	7.9	11.2	8.62	9.57
Turbidity (NTU)	9.0	8.9	9.9	10.0	10.1	10.5	9.73	-
SS (mg/L)	20.0	19.0	-	-	21.0	19.0	19.75	-
Remarks	Dredging works was observed.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2*120%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
DO (Depth-averaged)	4.2	4.0	7.4	7.4	N	N	N	N
DO (Bottom)	3.3	2.5	6.9	6.9	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	4.1	NA	N	N	N	N
SS (Depth-averaged)	24.0	37.0	16.3	16.3	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

Sampling Date	08/03/2008
Weather & Ambient Temperature	Sunny, 23C

Station	C1 (NM3)								
Time (hh:mm)	11:03-11:05								
Water Depth (m)	16.2								
Monitoring Depth (m)	1.0		8.1		15.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	19.7	19.6	19.6	19.6	19.6	19.6	19.64	-	
Salinity (ppt)	38.0	37.7	38.5	38.7	37.9	38.3	38.18	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	-	
D.O. Saturation (%)	87.3	87.7	87.4	87.2	87.9	87.9	87.57	-	
D.O. (mg/L)	6.4	6.4	6.4	6.4	6.4	6.4	6.40	6.43	
Turbidity (NTU)	4.7	4.5	5.7	5.8	7.7	8.0	6.07	-	
SS (mg/L)	14.0	13.0	14.0	11.0	15.0	13.0	13.33	-	
Remarks	Dredging works was observed.								

Station	C3 (NM6)								
Time (hh:mm)	11:33-11:34								
Water Depth (m)	7.1								
Monitoring Depth (m)	1.0		3.6		6.1				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	19.6	19.6	19.5	19.6	19.6	19.4	19.54	-	
Salinity (ppt)	36.0	36.0	36.0	36.1	36.1	35.6	35.96	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.22	-	
D.O. Saturation (%)	97.7	92.3	99.8	93.0	94.4	116.0	98.87	-	
D.O. (mg/L)	7.2	6.8	7.4	6.9	7.0	8.7	7.34	7.82	
Turbidity (NTU)	10.1	10.0	10.4	10.2	11.1	11.0	10.47	-	
SS (mg/L)	11.0	10.0	26.0	20.0	26.0	20.0	18.83	-	
Remarks	Dredging works was observed.								

Station	IMO1							Co-ordinates	
Time (hh:mm)	12:05-12:07							Northing	Easting
Water Depth (m)	8.5							22.21.411	113.53.452
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)	19.8	19.8	19.8	19.8	19.8	19.8	19.80	-	
Salinity (ppt)	35.5	34.8	35.7	35.5	35.5	35.7	35.46	-	
pH	8.1	8.2	8.2	8.1	8.2	8.2	8.15	-	
D.O. Saturation (%)	86.4	85.4	85.5	87.6	93.6	85.9	87.40	-	
D.O. (mg/L)	6.4	6.4	6.3	6.5	6.9	6.4	6.47	6.64	
Turbidity (NTU)	8.0	8.1	9.8	9.3	10.6	10.1	9.32	-	
SS (mg/L)	14.0	11.0	20.0	18.0	23.0	22.0	18.00	-	
Remarks	Dredging works was observed.								

Station	IMO2							Co-ordinates	
Time (hh:mm)	11:55-11:56							Northing	Easting
Water Depth (m)	9.0							22.21.035	113.53.581
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)	19.9	19.9	19.9	19.9	19.9	19.9	19.88	-	
Salinity (ppt)	35.9	36.0	36.1	36.2	36.2	35.4	35.97	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	-	
D.O. Saturation (%)	86.7	86.2	87.0	86.2	86.3	87.8	86.70	-	
D.O. (mg/L)	6.4	6.4	6.4	6.3	6.4	6.5	6.39	6.43	
Turbidity (NTU)	11.9	11.5	18.9	18.9	20.4	20.7	17.05	-	
SS (mg/L)	16.0	12.0	16.0	15.0	19.0	20.0	16.33	-	
Remarks	Dredging works was observed.								

Tide	Mid-Flood
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Station	MPB1								
Time (hh:mm)	12:01-12:02								
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)	19.8	19.9	19.9	19.9	19.9	19.9	19.85	-	
Salinity (ppt)	35.8	35.6	35.7	35.7	35.8	35.7	35.72	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	-	
D.O. Saturation (%)	86.0	87.0	85.8	87.9	86.4	94.7	87.97	-	
D.O. (mg/L)	6.4	6.4	6.3	6.5	6.4	7.0	6.50	6.69	
Turbidity (NTU)	7.8	8.3	9.3	9.2	10.7	10.0	9.22	-	
SS (mg/L)	13.0	16.0	18.0	16.0	19.0	18.0	16.67	-	
Remarks	Dredging works was observed.								

Station	MPB2								
Time (hh:mm)	11:49-11:50								
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)	19.8	19.8	19.8	19.9	19.9	19.5	19.77	-	
Salinity (ppt)	35.3	35.3	35.5	35.5	35.6	35.7	35.48	-	
pH	8.2	8.2	8.2	8.2	8.2	8.2	8.16	-	
D.O. Saturation (%)	93.6	87.9	100.8	88.3	89.6	116.9	96.18	-	
D.O. (mg/L)	6.9	6.5	7.5	6.5	6.6	8.7	7.13	7.66	
Turbidity (NTU)	7.6	7.7	8.4	8.1	8.5	8.3	8.10	-	
SS (mg/L)	17.0	11.0	19.0	15.0	32.0	28.0	20.33	-	
Remarks	Dredging works was observed.								

Station	MP								
Time (hh:mm)	12:12-12:13								
Water Depth (m)	5.9								
Monitoring Depth (m)	1.0		3.0		4.9				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	19.6	19.6	-	-	19.6	19.4	19.52	-	
Salinity (ppt)	35.4	32.7	-	-	35.5	35.5	34.78	-	
pH	8.1	8.1	-	-	8.1	8.2	8.14	-	
D.O. Saturation (%)	90.1	96.9	-	-	91.2	108.5	96.68	-	
D.O. (mg/L)	6.7	7.3	-	-	6.8	8.1	7.22	7.44	
Turbidity (NTU)	12.6	12.8	-	-	14.2	14.3	13.48	-	
SS (mg/L)	20.0	20.0	-	-	19.0	18.0	19.25	-	
Remarks	Dredging works was observed.								

Compliance with Action and Limit Level

Parameter	As in EM&A		Mean(C1+C3)*120%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Depth-averaged)	4.2	4.0	7.1	7.1	N	N	N	N
DO (Bottom)	3.3	2.5	6.9	6.9	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	10.7	NA	N	N	N	N
SS (Depth-averaged)	24.0	37.0	20.9	20.9	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

Sampling Date	03/09/2008
Weather & Ambient Temperature	Fine, 21C

Station	C2 (NM5)								
Time (hh:mm)	12:51-12:54								
Water Depth (m)	22.4								
Monitoring Depth (m)	1.0		11.2		21.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	17.2	17.2	17.1	17.1	16.8	16.8	17.03	-	
Salinity (ppt)	32.0	32.0	33.0	32.9	33.6	33.5	32.83	-	
pH	8.2	8.2	8.3	8.3	8.2	8.3	8.25	-	
D.O. Saturation (%)	78.5	78.8	78.0	77.6	76.6	76.7	77.70	-	
D.O. (mg/L)	6.2	6.3	6.2	6.1	6.1	6.1	6.16	6.08	
Turbidity (NTU)	7.9	7.9	8.8	9.0	10.8	11.2	9.27	-	
SS (mg/L)	10.0	12.0	14.0	14.0	20.0	18.0	14.67	-	
Remarks	No dredging works was observed.								

Station	IMO1					Co-ordinates			
Time (hh:mm)	13:08-13:10					Northing	Easting		
Water Depth (m)	10.0					22.21.179	113.54.451		
Monitoring Depth (m)	1.0		5.0		9.0				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	17.4	17.5	17.1	17.1	17.0	17.0	17.16	-	
Salinity (ppt)	32.5	32.5	32.7	32.7	33.1	33.1	32.79	-	
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.37	-	
D.O. Saturation (%)	80.7	80.5	79.2	78.7	77.4	78.2	79.12	-	
D.O. (mg/L)	6.4	6.4	6.3	6.2	6.1	6.17	6.25	6.15	
Turbidity (NTU)	12.3	13.3	17.9	18.4	26.0	26.6	19.08	-	
SS (mg/L)	14.0	16.0	19.0	21.0	20.0	20.0	18.33	-	
Remarks	No dredging works was observed.								

Station	IMO2					Co-ordinates			
Time (hh:mm)	13:19-13:21					Northing	Easting		
Water Depth (m)	18.4					22.21.538	113.54.969		
Monitoring Depth (m)	1.0		9.2		17.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	17.8	17.9	17.0	17.0	16.7	16.7	17.20	-	
Salinity (ppt)	31.9	32.0	33.2	32.2	33.7	33.7	32.79	-	
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.38	-	
D.O. Saturation (%)	83.1	82.8	81.4	81.3	79.5	80.0	81.35	-	
D.O. (mg/L)	6.5	6.6	6.4	6.5	6.3	6.34	6.44	6.32	
Turbidity (NTU)	6.7	6.9	9.8	10.0	13.6	14.1	10.18	-	
SS (mg/L)	8.0	11.0	12.0	15.0	11.0	14.0	11.83	-	
Remarks	No dredging works was observed.								

Tide	Mid-Ebb
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Station	MPB1							
Time (hh:mm)	12:19-12:21							
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)	18.1	18.1	17.8	17.8	17.0	16.9	17.60	-
Salinity (ppt)	32.0	32.0	32.5	32.5	33.0	33.0	32.48	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.31	-
D.O. Saturation (%)	80.7	81.1	79.0	79.5	77.4	77.6	79.22	-
D.O. (mg/L)	6.3	6.3	6.2	6.2	6.1	6.2	6.22	6.14
Turbidity (NTU)	9.3	9.5	16.1	16.9	28.5	29.5	18.30	-
SS (mg/L)	16.0	10.0	14.0	10.0	17.0	22.0	14.83	-
Remarks	No dredging works was observed.							

Station	MPB2							
Time (hh:mm)	12:11-12:13							
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)	17.8	17.8	17.1	17.1	17.1	17.1	17.35	-
Salinity (ppt)	32.2	32.2	33.0	33.0	33.3	33.3	32.83	-
pH	8.3	8.3	8.3	8.3	8.4	8.4	8.33	-
D.O. Saturation (%)	82.6	82.3	80.6	80.1	79.2	78.4	80.53	-
D.O. (mg/L)	6.4	6.5	6.4	6.3	6.3	6.2	6.33	6.22
Turbidity (NTU)	10.3	10.6	11.9	11.9	16.5	16.7	12.98	-
SS (mg/L)	10.0	14.0	10.0	11.0	15.0	16.0	12.67	-
Remarks	No dredging works was observed.							

Station	MP							
Time (hh:mm)	12:28-12:29							
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)	17.4	17.4	-	-	17.2	17.2	17.28	-
Salinity (ppt)	31.9	31.9	-	-	32.2	32.3	32.07	-
pH	8.3	8.3	-	-	8.3	8.3	8.26	-
D.O. Saturation (%)	79.2	79.9	-	-	78.1	76.8	78.50	-
D.O. (mg/L)	6.3	6.3	-	-	6.2	6.1	6.22	6.14
Turbidity (NTU)	15.9	16.3	-	-	18.8	19.2	17.55	-
SS (mg/L)	21.0	17.0	-	-	23.0	20.0	20.25	-
Remarks	No dredging works was observed.							

**Compliance with Action and Limit Level**

Parameter	As in EM&A		C2*120%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
DO (Depth-averaged)	4.2	4.0	6.1	6.1	N	N	N	N
DO (Bottom)	3.3	2.5	6.2	6.2	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	12.0	NA	N	N	N	N
SS (Depth-averaged)	24.0	37.0	19.1	19.1	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit	Exceedance of Action	Exceedance of Limit
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

Sampling Date	03/09/2008
Weather & Ambient Temperature	Fine, 19C

Station	C1 (NM3)								
Time (hh:mm)	7:20-7:22								
Water Depth (m)	16.2								
Monitoring Depth (m)	1.0		8.1		15.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	16.7	16.7	16.6	16.6	16.4	16.4	16.54	-	
Salinity (ppt)	33.5	33.4	33.5	33.6	33.9	33.9	33.64	-	
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.27	-	
D.O. Saturation (%)	81.4	81.1	80.5	80.0	78.9	78.9	80.13	-	
D.O. (mg/L)	6.4	6.4	6.4	6.3	6.3	6.3	6.36	6.27	
Turbidity (NTU)	4.8	5.2	7.2	7.7	17.2	17.5	9.93	-	
SS (mg/L)	12.0	15.0	10.0	14.0	17.0	19.0	14.50	-	
Remarks	No dredging works was observed.								

Station	C3 (NM6)								
Time (hh:mm)	8:40-8:43								
Water Depth (m)	7.2								
Monitoring Depth (m)	1.0		3.6		6.2				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	17.6	17.7	16.7	16.7	16.6	16.6	16.98	-	
Salinity (ppt)	32.9	32.9	34.3	34.3	34.4	34.4	33.88	-	
pH	8.4	8.4	8.4	8.4	8.4	8.4	8.40	-	
D.O. Saturation (%)	83.1	82.6	80.9	80.7	79.3	79.7	81.05	-	
D.O. (mg/L)	6.5	6.5	6.4	6.4	6.3	6.3	6.37	6.27	
Turbidity (NTU)	7.3	7.5	12.1	12.8	17.4	18.1	12.53	-	
SS (mg/L)	10.0	11.0	12.0	12.0	20.0	21.0	14.33	-	
Remarks	No dredging works was observed.								

Station	IMO1						Co-ordinates	
Time (hh:mm)	7:44-7:45						Northing	Easting
Water Depth (m)	10.4						22.21.628	113.54.589
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)	17.1	17.1	16.9	16.9	16.8	16.8	16.94	-
Salinity (ppt)	32.4	32.4	32.8	32.7	33.3	33.2	32.80	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.33	-
D.O. Saturation (%)	81.1	81.7	80.3	79.9	78.5	79.0	80.08	-
D.O. (mg/L)	6.4	6.5	6.4	6.3	6.2	6.3	6.34	6.24
Turbidity (NTU)	9.6	10.2	15.4	15.9	23.7	24.7	16.58	-
SS (mg/L)	15.0	17.0	17.0	18.0	16.0	18.0	16.83	-
Remarks	No dredging works was observed.							

Station	IMO2						Co-ordinates	
Time (hh:mm)	7:35-7:37						Northing	Easting
Water Depth (m)	19.4						22.21.269	113.54.681
Monitoring Depth (m)	1.0		9.7		18.4			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	17.7	17.7	16.8	16.8	16.6	16.6	17.04	-
Salinity (ppt)	31.9	31.8	33.1	33.2	33.8	33.8	32.94	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.33	-
D.O. Saturation (%)	82.7	82.8	79.9	79.8	78.5	78.7	80.40	-
D.O. (mg/L)	6.5	6.5	6.3	6.3	6.2	6.2	6.35	6.23
Turbidity (NTU)	4.2	4.3	9.9	10.1	16.5	17.2	10.37	-
SS (mg/L)	9.0	12.0	12.0	14.0	13.0	13.0	12.17	-
Remarks	No dredging works was observed.							

Tide	Mid-Flood
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Station	MPB1								
Time (hh:mm)	8:16-8:18								
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)	17.9	17.9	16.9	16.9	16.8	16.7	17.18	-	
Salinity (ppt)	32.0	32.1	33.0	33.0	33.0	33.1	32.69	-	
pH	8.3	8.3	8.3	8.4	8.3	8.3	8.34	-	
D.O. Saturation (%)	82.5	83.3	79.0	79.4	77.3	76.9	79.73	-	
D.O. (mg/L)	6.4	6.5	6.3	6.3	6.1	6.1	6.29	6.12	
Turbidity (NTU)	7.2	7.3	19.1	20.7	32.2	32.7	19.87	-	
SS (mg/L)	16.0	13.0	17.0	14.0	17.0	17.0	15.67	-	
Remarks	No dredging works was observed.								

Station	MPB2								
Time (hh:mm)	8:25-8:28								
Water Depth (m)	9.4								
Monitoring Depth (m)	1.0		4.7		8.4				
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom	
Water Temperature (°C)	17.5	17.4	17.0	17.0	17.0	17.0	17.13	-	
Salinity (ppt)	32.4	32.4	33.4	33.3	33.1	33.1	32.95	-	
pH	8.3	8.3	8.4	8.4	8.4	8.4	8.36	-	
D.O. Saturation (%)	81.3	81.0	78.4	78.7	80.0	79.6	79.83	-	
D.O. (mg/L)	6.4	6.4	6.2	6.2	6.3	6.3	6.29	6.31	
Turbidity (NTU)	8.9	9.4	11.0	11.3	19.2	20.5	13.38	-	
SS (mg/L)	25.0	28.0	10.0	14.0	17.0	20.0	19.00	-	
Remarks	No dredging works was observed.								

Station	MP								
Time (hh:mm)	8:08-8:08								
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)	17.3	17.2	-	-	17.0	17.0	17.12	-	
Salinity (ppt)	32.0	32.0	-	-	32.4	32.4	32.21	-	
pH	8.3	8.3	-	-	8.3	8.3	8.31	-	
D.O. Saturation (%)	80.4	81.1	-	-	79.2	78.6	79.83	-	
D.O. (mg/L)	6.4	6.4	-	-	6.3	6.2	6.32	6.25	
Turbidity (NTU)	13.4	13.7	-	-	22.2	22.5	17.95	-	
SS (mg/L)	21.0	20.0	-	-	23.0	24.0	22.00	-	
Remarks	No dredging works was observed.								

Compliance with Action and Limit Level

Parameter	As in EM&A		Mean(C1+C3)*120%		IMO1		IMO2	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
DO (Depth-averaged)	4.2	4.0	6.3	6.3	N	N	N	N
DO (Bottom)	3.3	2.5	6.4	6.4	N	N	N	N
Turbidity (Depth-averaged)	29.0	49.0	14.6	NA	Y	Y	N	N
SS (Depth-averaged)	24.0	37.0	18.7	18.7	N	N	N	N

MPB1		MPB2		MP	
Exceedance of Action	Exceedance of Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N
N	N	N	N	N	N

















Sampling Date	03/15/08
Weather & Ambient Temperature	Cloudy, 22C

Station	C2 (NM5)							
Time (hh:mm)	18:30-18:32							
Water Depth (m)	20.2							
Monitoring Depth (m)	1.0		10.1		19.2			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	18.9	18.9	18.3	18.1	18.1	18.0	18.38	-
Salinity (ppt)	32.6	32.7	33.4	33.7	33.7	33.8	33.30	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.26	-
D.O. Saturation (%)	92.9	92.0	90.9	92.0	94.0	95.0	92.80	-
D.O. (mg/L)	7.1	7.0	7.0	7.1	7.3	7.4	7.15	7.31
Turbidity (NTU)	6.8	6.6	6.8	7.5	8.0	7.3	7.17	-
SS (mg/L)	5.0	3.0	4.0	3.0	4.0	3.0	3.67	-
Remarks	No dredging works was observed.							

Mid-Ebb

Station	MPB1							
Time (hh:mm)	18:11-18:12							
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)	19.0	19.0	18.7	18.7	18.3	18.4	18.69	-
Salinity (ppt)	32.7	32.7	33.2	33.1	34.1	33.9	33.26	-
pH	8.3	8.3	8.3	8.3	8.3	8.3	8.27	-
D.O. Saturation (%)	96.8	95.7	96.3	98.0	97.0	96.3	96.68	-
D.O. (mg/L)	7.4	7.3	7.4	7.5	7.5	7.4	7.40	7.42
Turbidity (NTU)	5.8	6.1	7.9	8.2	7.5	7.7	7.20	-
SS (mg/L)	3.0	5.0	3.0	3.0	4.0	4.0	3.67	-
Remarks	No dredging works was observed.							

Station	MPB2							
Time (hh:mm)	18:04-18:05							
Water Depth (m)	8.7							
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)	19.2	19.0	18.6	18.7	18.4	18.5	18.73	-
Salinity (ppt)	32.4	32.6	33.0	33.0	33.6	33.4	33.00	-
pH	8.2	8.2	8.3	8.3	8.3	8.3	8.25	-
D.O. Saturation (%)	93.5	91.9	95.0	92.5	94.4	92.4	93.28	-
D.O. (mg/L)	7.1	7.0	7.3	7.1	7.3	7.1	7.15	7.17
Turbidity (NTU)	5.0	5.2	6.7	6.1	6.3	6.2	5.92	-
SS (mg/L)	3.0	3.0	5.0	5.0	6.0	4.0	4.33	-
Remarks	No dredging works was observed.							

Station	MP							
Time (hh:mm)	18:21-18:22							
Water Depth (m)	5.7							
Monitoring Depth (m)	1.0		2.8		4.7			
Trial	Trial 1	Trial 2	Trial 1	Trial 2	Trial 1	Trial 2	Depth-averaged	Bottom
Water Temperature (°C)	19.0	19.0	-	-	19.0	19.0	18.99	-
Salinity (ppt)	32.5	32.5	-	-	32.5	32.5	32.49	-
pH	8.3	8.3	-	-	8.3	8.3	8.25	-
D.O. Saturation (%)	94.2	95.4	-	-	94.7	96.1	95.10	-
D.O. (mg/L)	7.2	7.3	-	-	7.3	7.4	7.28	7.30
Turbidity (NTU)	6.9	8.0	-	-	7.3	7.2	7.35	-
SS (mg/L)	4.0	4.0	-	-	3.0	5.0	4.00	-
Remarks	No dredging works was observed.							

Compliance with Action and Limit Level

Parameter	As in EM&A		C2*130%		IMO1		IMO2		Exceedance of Action Level	MPB1	Exceedance of Limit Level	MPB2		MP	
	Action Level	Limit Level	Action Level	Limit Level	Exceedance of Action	Exceedance of Limit Level	Exceedance of Action Level	Exceedance of Limit Level				Exceedance of Action	Exceedance of Limit Level	Exceedance of Action	Exceedance of Limit Level
DO (Depth-averaged)	4.2	4.0	7.3	7.3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	N	N	N	N	N	N	
DO (Bottom)	3.3	2.5	7.1	7.1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	N	N	N	N	N	N	
Turbidity (Depth-averaged)	29.0	49.0	9.3	NA	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	N	N	N	N	N	N	
SS (Depth-averaged)	24.0	37.0	4.8	4.8	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	N	N	N	N	N	N	

































































Annex H

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



### CERTIFICATE OF ANALYSIS

<i>Client</i>	: ERM HONG KONG	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 6
<i>Contact</i>	: MS KAREN LUI	<i>Contact</i>	: Alice Wong	<i>Work Order</i>	: HK0802490
<i>Address</i>	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
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<i>Facsimile</i>	: 2723 5660	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	<i>Quote number</i>	: ---	<i>Date received</i>	: 20 Feb 2008
<i>Order number</i>	: ---			<i>Date of issue</i>	: 14 Mar 2008
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 18
<i>Site</i>	: ---				- Analysed : 18

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0802490 supersedes any previous reports with this reference. The completion date of analysis is 29 Feb 2008. 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 HK0802490 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.**  
**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 Hona Kona. Chapter 553. Section 6.

<u>Signatory</u>	<u>Position</u>	<u>Authorised results for:-</u>
Anh Ngoc Huynh	Senior Chemist	Organics



## Analytical Results

				Client Sample ID :	MPB1 ME	MPB1 ME DUP	MPB2 ME	MPB2 ME DUP	MP ME
				Laboratory Sample ID :	HK0802490-001	HK0802490-002	HK0802490-003	HK0802490-004	HK0802490-005
				Sample Date / Time :	[ 20 Feb 2008 ]	[ 20 Feb 2008 ]			
Submatrix: MARINE WATER									
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	104	116	120	114	108	
Tetrachlorometaxylene	877-09-8	0.1	%	122	85.2	111	116	107	
Dibutylchloroendate	1770-80-5	0.1	%	83.2	90.9	86.7	91.1	89.2	



## Analytical Results

				Client Sample ID :	MP ME DUP	C2 (NM5) ME	C2 (NM5) ME DUP	MPB1 MF	MPB1 MF DUP
				Laboratory Sample ID :	HK0802490-006	HK0802490-007	HK0802490-008	HK0802490-009	HK0802490-010
				Sample Date / Time :	[ 20 Feb 2008 ]	[ 20 Feb 2008 ]			
Submatrix: MARINE WATER									
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	<b>122</b>	<b>116</b>	<b>117</b>	<b>111</b>	<b>101</b>	
Tetrachlorometaxylene	877-09-8	0.1	%	<b>112</b>	<b>89.5</b>	<b>82.6</b>	<b>91.1</b>	<b>61.6</b>	
Dibutylchlorendate	1770-80-5	0.1	%	<b>94.0</b>	<b>81.6</b>	<b>79.8</b>	<b>91.3</b>	<b>67.5</b>	



## Analytical Results

				Client Sample ID :	MPB2 MF	MPB2 MF DUP	MP MF	MP MF DUP	C1 (NM3) MF
				Laboratory Sample ID :	HK0802490-011	HK0802490-012	HK0802490-013	HK0802490-014	HK0802490-015
				Sample Date / Time :	[ 20 Feb 2008 ]	[ 20 Feb 2008 ]			
				Submatrix: MARINE WATER					
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	<b>128</b>	<b>129</b>	<b>99.3</b>	<b>106</b>	<b>82.4</b>	
Tetrachlorometaxylene	877-09-8	0.1	%	<b>60.6</b>	<b>63.0</b>	<b>60.7</b>	<b>89.1</b>	<b>99.2</b>	
Dibutylchloroendate	1770-80-5	0.1	%	<b>93.2</b>	<b>93.5</b>	<b>97.1</b>	<b>105</b>	<b>104</b>	



## Analytical Results

				Client Sample ID :	C1 (NM3) MF DUP	C3 (NM6) MF	C3 (NM6) MF DUP		
				Laboratory Sample ID :	HK0802490-016	HK0802490-017	HK0802490-018		
				Submatrix: MARINE WATER	[ 20 Feb 2008 ]	[ 20 Feb 2008 ]	[ 20 Feb 2008 ]		
				Sample Date / Time :					
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<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		
PCB 28	7012-37-5	0.01	µg/L	<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		
PCB 44	41464-39-5	0.01	µg/L	<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		
PCB 101	37680-73-2	0.01	µg/L	<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		
PCB 149	38380-04-0	0.01	µg/L	<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		
PCB 153	35065-27-1	0.01	µg/L	<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		
PCB 126	57465-28-8	0.01	µg/L	<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		
PCB 128	38380-07-3	0.01	µg/L	<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		
PCB 180	35065-29-3	0.01	µg/L	<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		
PCB 170	35065-30-6	0.01	µg/L	<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		
<b>EP-065B: Organochlorine Pesticides</b>									
4,4'-DDT	50-29-3	0.01	µg/L	<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		
4,4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01		
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	<b>116</b>	<b>100</b>	<b>104</b>			
Tetrachlorometaxylene	877-09-8	0.1	%	<b>77.4</b>	<b>76.9</b>	<b>82.5</b>			
Dibutylchloroendate	1770-80-5	0.1	%	<b>106</b>	<b>104</b>	<b>111</b>			



## Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
		Method: Analysis Description	CAS number	LOR		Units	Result	SCS	DCS	Low	High
<b>EP-065A: PCB Single Congeners (QCLot: 601113)</b>											
PCB 8	34883-43-7	0.01	µg/L	<0.01	100 µg/L	72.8	----	50	130	----	----
PCB 18	37680-65-2	0.01	µg/L	<0.01	100 µg/L	75.7	----	50	130	----	----
PCB 28	7012-37-5	0.01	µg/L	<0.01	100 µg/L	76.6	----	50	130	----	----
PCB 52	35693-99-3	0.01	µg/L	<0.01	100 µg/L	71.2	----	50	130	----	----
PCB 44	41464-39-5	0.01	µg/L	<0.01	100 µg/L	72.1	----	50	130	----	----
PCB 66	32598-10-0	0.01	µg/L	<0.01	100 µg/L	72.4	----	50	130	----	----
PCB 101	37680-73-2	0.01	µg/L	<0.01	100 µg/L	69.8	----	50	130	----	----
PCB 77	32598-13-3	0.01	µg/L	<0.01	100 µg/L	71.1	----	50	130	----	----
PCB 149	38380-04-0	0.01	µg/L	<0.01	100 µg/L	68.4	----	50	130	----	----
PCB 118	31508-00-6	0.01	µg/L	<0.01	100 µg/L	69.9	----	50	130	----	----
PCB 153	35065-27-1	0.01	µg/L	<0.01	100 µg/L	104	----	50	130	----	----
PCB 105	32598-14-4	0.01	µg/L	<0.01	100 µg/L	74.3	----	50	130	----	----
PCB 126	57465-28-8	0.01	µg/L	<0.01	100 µg/L	70.8	----	50	130	----	----
PCB 187	52663-68-0	0.01	µg/L	<0.01	100 µg/L	64.3	----	50	130	----	----
PCB 128	38380-07-3	0.01	µg/L	<0.01	100 µg/L	72.9	----	50	130	----	----
PCB 156	38380-08-4	0.01	µg/L	<0.01	100 µg/L	74.4	----	50	130	----	----
PCB 180	35065-29-3	0.01	µg/L	<0.01	100 µg/L	72.0	----	50	130	----	----
PCB 169	60044-26-0	0.01	µg/L	<0.01	100 µg/L	72.7	----	50	130	----	----
PCB 170	35065-30-6	0.01	µg/L	<0.01	100 µg/L	71.6	----	50	130	----	----
PCB 195	52663-78-2	0.01	µg/L	<0.01	100 µg/L	74.0	----	50	130	----	----
<b>EP-065B: Organochlorine Pesticides (QCLot: 601113)</b>											
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	----	----

## Surrogate Control Limits

Submatrix Type: MARINE WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>			
Decachlorobiphenyl	%	50	130
Tetrachlorometaxylene	%	50	130
Dibutylchlorendate	%	50	130



### CERTIFICATE OF ANALYSIS

<i>Client</i>	: ERM HONG KONG	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 6
<i>Contact</i>	: MS KAREN LUI	<i>Contact</i>	: Alice Wong	<i>Work Order</i>	: HK0803702
<i>Address</i>	: 21/F, LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY HONG KONG	<i>Address</i>	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
<i>E-mail</i>	: Karen.Lui@erm.com	<i>E-mail</i>	: Alice.Wong@alsenviro.com		
<i>Telephone</i>	: 2271 3000	<i>Telephone</i>	: +852 2610 1044		
<i>Facsimile</i>	: 2723 5660	<i>Facsimile</i>	: +852 2610 2021		
<i>Project</i>	: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	<i>Quote number</i>	: ---	<i>Date received</i>	: 10 Mar 2008
<i>Order number</i>	: ---			<i>Date of issue</i>	: 2 Apr 2008
<i>C-O-C number</i>	: ---			<i>No. of samples</i>	- Received : 18
<i>Site</i>	: ---				- Analysed : 18

### Report Comments

This report for ALS Technichem (HK) Pty Ltd work order reference HK0803702 supersedes any previous reports with this reference. The completion date of analysis is 17 Mar 2008. 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 HK0803702 : **Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.**  
**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 Hona Kona. Chapter 553. Section 6.

<u>Signatory</u>	<u>Position</u>	<u>Authorised results for:-</u>
Anh Ngoc Huynh	Senior Chemist	Organics



## Analytical Results

				Client Sample ID :	MPB1 ME	MPB1 ME DUP	MPB2 ME	MPB2 ME DUP	MP ME
				Laboratory Sample ID :	HK0803702-001	HK0803702-002	HK0803702-003	HK0803702-004	HK0803702-005
				Sample Date / Time :	[ 10 Mar 2008 ]	[ 10 Mar 2008 ]			
Submatrix: MARINE WATER									
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	100	101	106	100	100	
Tetrachlorometaxylene	877-09-8	0.1	%	110	108	97.0	116	106	
Dibutylchloroendate	1770-80-5	0.1	%	115	112	94.9	112	94.7	



## Analytical Results

				Client Sample ID :	MP ME DUP	C2 (NM5) ME	C2 (NM5) ME DUP	MPB1 MF	MPB1 MF DUP
				Laboratory Sample ID :	HK0803702-006	HK0803702-007	HK0803702-008	HK0803702-009	HK0803702-010
				Sample Date / Time :	[ 10 Mar 2008 ]	[ 10 Mar 2008 ]			
Submatrix: MARINE WATER									
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	<b>80.3</b>	<b>89.7</b>	<b>90.3</b>	<b>115</b>	<b>89.0</b>	
Tetrachlorometaxylene	877-09-8	0.1	%	<b>83.7</b>	<b>89.6</b>	<b>82.8</b>	<b>87.6</b>	<b>98.6</b>	
Dibutylchloroendate	1770-80-5	0.1	%	<b>84.9</b>	<b>80.5</b>	<b>89.3</b>	<b>108</b>	<b>96.6</b>	



## Analytical Results

				Client Sample ID :	MPB2 MF	MPB2 MF DUP	MP MF	MP MF DUP	C1 (NM3) MF
				Laboratory Sample ID :	HK0803702-011	HK0803702-012	HK0803702-013	HK0803702-014	HK0803702-015
				Sample Date / Time :	[ 10 Mar 2008 ]	[ 10 Mar 2008 ]			
Submatrix: MARINE WATER									
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<0.01	<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	<0.01
PCB 28	7012-37-5	0.01	µg/L	<0.01	<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	<0.01
PCB 44	41464-39-5	0.01	µg/L	<0.01	<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	<0.01
PCB 101	37680-73-2	0.01	µg/L	<0.01	<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	<0.01
PCB 149	38380-04-0	0.01	µg/L	<0.01	<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	<0.01
PCB 153	35065-27-1	0.01	µg/L	<0.01	<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	<0.01
PCB 126	57465-28-8	0.01	µg/L	<0.01	<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	<0.01
PCB 128	38380-07-3	0.01	µg/L	<0.01	<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	<0.01
PCB 180	35065-29-3	0.01	µg/L	<0.01	<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	<0.01
PCB 170	35065-30-6	0.01	µg/L	<0.01	<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	<0.01
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<0.01	<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	<0.01
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>								Surrogate control limits listed at end of this report.	
Decachlorobiphenyl	2051-24-3	0.1	%	<b>88.4</b>	<b>102</b>	<b>89.8</b>	<b>87.0</b>	<b>119</b>	
Tetrachlorometaxylene	877-09-8	0.1	%	<b>83.1</b>	<b>112</b>	<b>92.5</b>	<b>94.0</b>	<b>93.4</b>	
Dibutylchloroendate	1770-80-5	0.1	%	<b>114</b>	<b>96.3</b>	<b>112</b>	<b>109</b>	<b>100</b>	



## Analytical Results

				Client Sample ID :	C1 (NM3) MF DUP	C3 (NM6) MF	C3 (NM6) MF DUP		
				Laboratory Sample ID :	HK0803702-016	HK0803702-017	HK0803702-018		
				Sample Date / Time :	[ 10 Mar 2008 ]	[ 10 Mar 2008 ]	[ 10 Mar 2008 ]		
				Submatrix: MARINE WATER					
Method: Analysis Description	CAS number	LOR	Units						
<b>EP-065A: PCB Single Congeners</b>									
PCB 8	34883-43-7	0.01	µg/L	<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		
PCB 28	7012-37-5	0.01	µg/L	<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		
PCB 44	41464-39-5	0.01	µg/L	<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		
PCB 101	37680-73-2	0.01	µg/L	<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		
PCB 149	38380-04-0	0.01	µg/L	<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		
PCB 153	35065-27-1	0.01	µg/L	<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		
PCB 126	57465-28-8	0.01	µg/L	<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		
PCB 128	38380-07-3	0.01	µg/L	<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		
PCB 180	35065-29-3	0.01	µg/L	<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		
PCB 170	35065-30-6	0.01	µg/L	<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		
<b>EP-065B: Organochlorine Pesticides</b>									
4.4'-DDT	50-29-3	0.01	µg/L	<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		
4.4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	<0.01	<0.01		
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>									
Surrogate control limits listed at end of this report.									
Decachlorobiphenyl	2051-24-3	0.1	%	112	87.9	106			
Tetrachlorometaxylene	877-09-8	0.1	%	105	85.8	109			
Dibutylchlorendate	1770-80-5	0.1	%	112	90.7	100			



## Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results						
Method: Analysis Description	CAS number	LOR	Units	Result	Spike	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
					Concentration	SCS	DCS	Low	High	Value	Control Limit
<b>EP-065A: PCB Single Congeners (QCLot: 613974)</b>											
PCB 8	34883-43-7	0.01	µg/L	<0.01	100 µg/L	82.6	----	50	130	----	----
PCB 18	37680-65-2	0.01	µg/L	<0.01	100 µg/L	99.4	----	50	130	----	----
PCB 28	7012-37-5	0.01	µg/L	<0.01	100 µg/L	93.6	----	50	130	----	----
PCB 52	35693-99-3	0.01	µg/L	<0.01	100 µg/L	90.1	----	50	130	----	----
PCB 44	41464-39-5	0.01	µg/L	<0.01	100 µg/L	96.1	----	50	130	----	----
PCB 66	32598-10-0	0.01	µg/L	<0.01	100 µg/L	84.0	----	50	130	----	----
PCB 101	37680-73-2	0.01	µg/L	<0.01	100 µg/L	96.8	----	50	130	----	----
PCB 77	32598-13-3	0.01	µg/L	<0.01	100 µg/L	87.2	----	50	130	----	----
PCB 149	38380-04-0	0.01	µg/L	<0.01	100 µg/L	87.1	----	50	130	----	----
PCB 118	31508-00-6	0.01	µg/L	<0.01	100 µg/L	87.2	----	50	130	----	----
PCB 153	35065-27-1	0.01	µg/L	<0.01	100 µg/L	87.6	----	50	130	----	----
PCB 105	32598-14-4	0.01	µg/L	<0.01	100 µg/L	86.5	----	50	130	----	----
PCB 126	57465-28-8	0.01	µg/L	<0.01	100 µg/L	88.9	----	50	130	----	----
PCB 187	52663-68-0	0.01	µg/L	<0.01	100 µg/L	87.7	----	50	130	----	----
PCB 128	38380-07-3	0.01	µg/L	<0.01	100 µg/L	93.7	----	50	130	----	----
PCB 156	38380-08-4	0.01	µg/L	<0.01	100 µg/L	86.6	----	50	130	----	----
PCB 180	35065-29-3	0.01	µg/L	<0.01	100 µg/L	97.5	----	50	130	----	----
PCB 169	60044-26-0	0.01	µg/L	<0.01	100 µg/L	100	----	50	130	----	----
PCB 170	35065-30-6	0.01	µg/L	<0.01	100 µg/L	81.7	----	50	130	----	----
PCB 195	52663-78-2	0.01	µg/L	<0.01	100 µg/L	81.9	----	50	130	----	----
<b>EP-065B: Organochlorine Pesticides (QCLot: 613974)</b>											
4.4`-DDT	50-29-3	0.01	µg/L	<0.01	100 µg/L	Not Determined	----	50	130	----	----
4.4`-DDE	72-55-9	0.01	µg/L	<0.01	100 µg/L	Not Determined	----	50	130	----	----
4.4`-DDD	72-54-8	0.01	µg/L	<0.01	100 µg/L	Not Determined	----	50	130	----	----

## Surrogate Control Limits

Submatrix Type: MARINE WATER

Method: Analysis Description	Units	Lower Limit	Upper Limit
<b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b>			
Decachlorobiphenyl	%	50	130
Tetrachlorometaxylene	%	50	130
Dibutylchloredate	%	50	130



**CERTIFICATE OF ANALYSIS**

**CONTACT:** MS KAREN LUI  
**CLIENT:** ERM HONG KONG  
**ADDRESS:** 21/F., LINCOLN HOUSE,  
979 KING'S ROAD, TAIKOO PLACE,  
ISLAND EAST, HONG KONG  
**PROJECT:** EM&A FOR THE PERMANENT AVIATION FUEL FACILITY

**Batch:** HK0802490  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 20/02/2008  
**DATE OF ISSUE:** 14/03/2008  
**SAMPLE TYPE:** WATER  
**No. of SAMPLES:** 18

**COMMENTS**

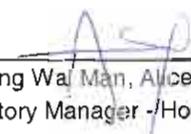
Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
PAHs was subcontracted and tested by ALS Sydney.  
ALS Sydney details report was attached. The attached report contains a total of 14 pages.

**ISSUING LABORATORY: HONG KONG**

**Address**

ALS Technichem (HK) Pty Ltd  
11/F Chung Shun Knitting Centre  
1-3 Wing Yip Street  
Kwai Chung  
HONG KONG

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Ms Wong Wai Man, Alice  
Laboratory Manager - Hong Kong

**Other ALS Environmental Laboratories**

**AUSTRALIA**

Brisbane Hong Kong  
Melbourne Singapore  
Sydney Kuala Lumpur  
Newcastle Bogor

**AMERICAS**

Vancouver  
Santiago  
Amtofagasta  
Lima

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Abbreviations: % SPK REC denotes percentage spike recovery  
CHK denotes duplicate check sample  
LOR denotes limit of reporting  
LCS % REC denotes Laboratory Control Sample percentage recovery



# CERTIFICATE OF ANALYSIS

Batch: HK0802490  
Date of Issue: 14/03/2008  
Client: ERM HONG KONG  
Client Reference: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY

ALS Sydney report is attached for the analysis of PAHs in water.  
This attached report contains a total of 14 pages.

## Sample Details

<i>ALS Lab ID</i>	<i>ALS Sydney Lab ID</i>	<i>Client's Sample ID</i>	<i>Sampling Date</i>
HK0802490-1	ES0802671-1	MPB1 ME	20/02/2008
HK0802490-2	ES0802671-2	MPB1 ME DUP	20/02/2008
HK0802490-3	ES0802671-3	MPB2 ME	20/02/2008
HK0802490-4	ES0802671-4	MPB2 ME DUP	20/02/2008
HK0802490-5	ES0802671-5	MP ME	20/02/2008
HK0802490-6	ES0802671-6	MP ME DUP	20/02/2008
HK0802490-7	ES0802671-7	C2(NM5) ME	20/02/2008
HK0802490-8	ES0802671-8	C2(NM5) ME DUP	20/02/2008
HK0802490-9	ES0802671-9	MPB1 MF	20/02/2008
HK0802490-10	ES0802671-10	MPB1 MF DUP	20/02/2008
HK0802490-11	ES0802671-11	MPB2 MF	20/02/2008
HK0802490-12	ES0802671-12	MPB2 MF DUP	20/02/2008
HK0802490-13	ES0802671-13	MP MF	20/02/2008
HK0802490-14	ES0802671-14	MP MF DUP	20/02/2008
HK0802490-15	ES0802671-15	C1(NM3) MF	20/02/2008
HK0802490-16	ES0802671-16	C1(NM3) MF DUP	20/02/2008
HK0802490-17	ES0802671-17	C3(NM6) MF	20/02/2008
HK0802490-18	ES0802671-18	C3(NM6) MF DUP	20/02/2008



Environmental Division

**CERTIFICATE OF ANALYSIS**

Work Order	: <b>ES0802671</b>	Page	: 1 of 8
Client	: <b>ALS TECHNICHEM (HK)</b>	Laboratory	: Environmental Division Sydney
Contact	: <b>MS KERRY YUEN</b>	Contact	: Ashwini Sharma
Address	: <b>11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG</b>	Address	: <b>277-289 Woodpark Road Smithfield NSW Australia 2164</b>
E-mail	: <b>kerry.yuen@alsenviro.com</b>	E-mail	: <b>Ashwini.Sharma@alsenviro.com</b>
Telephone	: <b>+852 001585226101044</b>	Telephone	: <b>+61-2-8784 8555</b>
Facsimile	: <b>+852 26102021</b>	Facsimile	: <b>+61-2-8784 8500</b>
Project	: <b>SY 241 07 2007 Blanket Quote - discount by a further 20%</b>	QC Level	: <b>NEPM 1999 Schedule B(3) and ALS QCS3 requirement</b>
Order number	: ---	Date Samples Received	: <b>28-FEB-2008</b>
C-O-C number	: ---	Issue Date	: <b>10-MAR-2008</b>
Sampler	: ---	No. of samples received	: <b>18</b>
Site	: ---	No. of samples analysed	: <b>18</b>
Quote number	: <b>SY/241/07</b>		

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



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
PHALAK INTHAKESONE	Organics Co-ordinator	Organics

Page : 3 of 8  
Work Order : ES0802671  
Client : ALS TECHNICHEM (HK)  
Project : SY 241 07 2007 Blanket Quote - discount by a further 20%

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### **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 insufficient sample for analysis.

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

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

Key : CAS Number = Chemistry Abstract Services number  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting



### Analytical Results

Substrate	Client sample ID			HK0802490-1	HK0802490-2	HK0802490-3	HK0802490-4	HK0802490-5
MARINE WATER	Client sampling date / time			20-FEB-2008 15:00				
Compound	CAS Number	LOR	Unit	ES0802671-001	ES0802671-002	ES0802671-003	ES0802671-004	ES0802671-005
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>								
3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-98-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	79.9	80.5	94.4	88.3	88.6
Anthracene-d10	1719-06-8	0.1	%	90.1	80.8	97.2	91.1	91.4
4-Terphenyl-d14	1718-51-0	0.1	%	89.5	81.7	96.4	90.4	91.0

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 Work Order : ES0802671  
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**Analytical Results**

Sub-Matrix: MARINE WATER

Compound	CAS Number	LOR	Unit	Client sample ID	Client sampling date / time	ES0802671-005	ES0802671-007	ES0802671-008	ES0802671-009	ES0802671-010
				HK0802490-6	HK0802490-7	HK0802490-8	HK0802490-9	HK0802490-10		
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>										
3-Methylcholanthrene	56-49-6	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L		20-FEB-2008 15:00	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Di-benz(a,h)anthracene	53-70-3	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L		20-FEB-2008 15:00	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>										
2-Fluorobiphenyl	321-60-8	0.1	%		20-FEB-2008 15:00	92.2	77.4	87.1	95.2	88.4
Anthracene-d10	1719-06-8	0.1	%		20-FEB-2008 15:00	94.2	81.0	90.0	99.2	90.1
4-Terphenyl-d14	1718-51-0	0.1	%		20-FEB-2008 15:00	93.1	81.4	90.3	99.4	95.5

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### Analytical Results

Sub-Matrix: MARINE WATER

Compound	CAS Number	LOR	Unit	Client sample ID				
				HK0802490-11	HK0802490-12	HK0802490-13	HK0802490-14	HK0802490-15
				20-FEB-2008 15:00				
				ES0802671-011	ES0802671-012	ES0802671-013	ES0802671-014	ES0802671-015
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>								
3-Methylchoanthrene	56-48-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	82.7	84.3	85.2	86.1	81.3
Anthracene-d10	1719-06-8	0.1	%	84.6	86.9	86.1	87.2	81.6
4-Terphenyl-d14	1718-51-0	0.1	%	86.7	88.6	86.4	88.7	83.6

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**Analytical Results**

Sub-Matrix	MARINE WATER	Client sample ID			HK0802490-16	HK0802490-17	HK0802490-18	---	---
		Client sampling date / time			20-FEB-2008 15:00	20-FEB-2008 15:00	20-FEB-2008 15:00	---	---
Compound	CAS Number	LOD	Unit	ES0802671-016	ES0802671-017	ES0802671-018	---	---	
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>									
3-Methylcholanthrene	56-48-5	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Benzo(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	---	---	
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Indeno(1,2,3,cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	---	---	
<b>EP132T: Base/Neutral Extractable Surrogates</b>									
2-Fluorobiphenyl	321-60-8	0.1	%	82.8	89.2	80.8	---	---	
Anthracene-d10	1719-06-8	0.1	%	84.4	93.4	81.6	---	---	
4-Terphenyl-d14	1718-51-0	0.1	%	85.8	88.9	84.8	---	---	

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### Surrogate Control Limits

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



Environmental Division

**QUALITY CONTROL REPORT**

Work Order	: ES0802671	Page	: 1 of 6
Client	: ALS TECHNICHEM (HK)	Laboratory	: Environmental Division Sydney
Contact	: MS KERRY YUEN	Contact	: Ashwini Sharma
Address	: 11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
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Telephone	: +852 001585226101044	Telephone	: +61-2-8784 8555
Facsimile	: +852 26102021	Facsimile	: +61-2-8784 8500
Project	: SY 241 07 2007 Blanket Quote - disount by a further 20%	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ---	Date Samples Received	: 28-FEB-2008
C-O-C number	: ---	Issue Date	: 10-MAR-2008
Sampler	: ---	No. of samples received	: 18
Order number	: ---	No. of samples analysed	: 18
Quote number	: SY/241/07		

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

This Quality Control Report contains the following information:

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



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

**Signatories**

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

Signatories	Position	Accreditation Category
PHALAK INTHAKESONE	Organics Co-ordinator	Organics

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### **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 insufficient 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

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### **Laboratory Duplicate (DUP) Report**

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

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



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

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

Sub-Matrix: WATER

Method/Compound	CAS Number	LOR	Unit	Method Blank (MB)	Spike Concentration	Laboratory Control Spike (LCS) Report		
				Result		Spike Recovery (%)	Recovery Limits (%)	
						LCS	Low	High
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLat: 804431)</b>								
EP132: 3-Methylcholanthrene	56-10-5	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	92.4	65.8	121
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	86.5	67.7	112
EP132: 7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	85.4	11.6	146
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	88.8	73.2	111
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	91.1	72.4	112
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	92.6	73.4	113
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	90.2	73.6	114
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	87.5	75.2	117
EP132: Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	90.5	71.4	119
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	91.0	75.3	118
EP132: Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	85.6	66.6	121
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	91.7	74.8	118
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	91.4	69.6	120
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	68.4	47.4	131
EP132: Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	86.8	71.5	117
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	91.8	74.8	117
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	93.6	72.9	114
EP132: Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	85.4	67.8	119
EP132: N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	96.1	53.6	131
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	---	---	---	---
		0.10	µg/L	---	2 µg/L	88.6	58.3	116

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Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
Method/Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High		
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLat: 654431) - continued</b>									
EP132: Perylene	198-55-0	0.1 0.10	µg/L	<0.1 ---	---	---	---	---	---
EP132: Phenanthrene	85-01-8	0.1 0.10	µg/L	<0.1 ---	2 µg/L	90.2	68	122	---
EP132: Pyrene	129-00-0	0.1 0.10	µg/L	<0.1 ---	2 µg/L	90.8	74.8	112	---
					2 µg/L	93.3	75.1	117	---



## CERTIFICATE OF ANALYSIS

<b>CONTACT:</b>	MS KAREN LUI	<b>Batch:</b>	HK0803702
<b>CLIENT:</b>	ERM HONG KONG	<b>LABORATORY:</b>	HONG KONG
<b>ADDRESS:</b>	21/F., LINCOLN HOUSE, 979 KING'S ROAD, TAIKOO PLACE, ISLAND EAST, HONG KONG	<b>DATE RECEIVED:</b>	10/03/2008
<b>PROJECT:</b>	EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	<b>DATE OF ISSUE:</b>	01/04/2008
		<b>SAMPLE TYPE:</b>	WATER
		<b>No. of SAMPLES:</b>	18

### COMMENTS

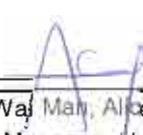
Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.  
PAHs was subcontracted and tested by ALS Sydney.  
ALS Sydney details report was attached. The attached report contains a total of 14 pages.

### ISSUING LABORATORY: HONG KONG

**Address**

ALS Technichem (HK) Pty Ltd  
11/F Chung Shun Knitting Centre  
1-3 Wing Yip Street  
Kwai Chung  
HONG KONG

**Phone:** 852-2610 1044  
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Ms Wong Wai Man, Alice  
Laboratory Manager - Hong Kong

**Other ALS Environmental Laboratories****AUSTRALIA**

Brisbane  
Melbourne  
Sydney  
Newcastle

Hong Kong

Singapore

Kuala Lumpur

Bogor

**AMERICAS**

Vancouver  
Santiago  
Amtofagasta  
Lima

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*Abbreviations: % SPK REC denotes percentage spike recovery*

*CHK denotes duplicate check sample*

*LOR denotes limit of reporting*

*LCS % REC denotes Laboratory Control Sample percentage recovery*



# CERTIFICATE OF ANALYSIS

Batch: HK0803702  
Date of Issue: 01/04/2008  
Client: ERM HONG KONG  
Client Reference: EM&A FOR THE PERMANENT AVIATION FUEL FACILITY

ALS Sydney report is attached for the analysis of PAHs in water.  
This attached report contains a total of 14 pages.

## Sample Details

<i>ALS Lab ID</i>	<i>ALS Sydney Lab ID</i>	<i>Client's Sample ID</i>	<i>Sampling Date</i>
HK0803702-1	ES0803795-1	MPB1 ME	10/03/2008
HK0803702-2	ES0803795-2	MPB1 ME DUP	10/03/2008
HK0803702-3	ES0803795-3	MPB2 ME	10/03/2008
HK0803702-4	ES0803795-4	MPB2 ME DUP	10/03/2008
HK0803702-5	ES0803795-5	MP ME	10/03/2008
HK0803702-6	ES0803795-6	MP ME DUP	10/03/2008
HK0803702-7	ES0803795-7	C2(NM5) ME	10/03/2008
HK0803702-8	ES0803795-8	C2(NM5) ME DUP	10/03/2008
HK0803702-9	ES0803795-9	MPB1 MF	10/03/2008
HK0803702-10	ES0803795-10	MPB1 MF DUP	10/03/2008
HK0803702-11	ES0803795-11	MPB2 MF	10/03/2008
HK0803702-12	ES0803795-12	MPB2 MF DUP	10/03/2008
HK0803702-13	ES0803795-13	MP MF	10/03/2008
HK0803702-14	ES0803795-14	MP MF DUP	10/03/2008
HK0803702-15	ES0803795-15	C1(NM3) MF	10/03/2008
HK0803702-16	ES0803795-16	C1(NM3) MF DUP	10/03/2008
HK0803702-17	ES0803795-17	C3(NM6) MF	10/03/2008
HK0803702-18	ES0803795-18	C3(NM6) MF DUP	10/03/2008



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES0803975	Page	: 1 of 8
Client	: ALS TECHNICHEM (HK)	Laboratory	: Environmental Division Sydney
Contact	: MS KERRY YUEN	Contact	: Ashwini Sharma
Address	: 11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: kerry.yuen@alsenviro.com	E-mail	: Ashwini.Sharma@alsenviro.com
Telephone	: +852 001585226101044	Telephone	: +61-2-8784 8555
Facsimile	: +852 26102021	Facsimile	: +61-2-8784 8500
Project	: ---	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ---	Date Samples Received	: 25-MAR-2008
C-O-C number	: ---	Issue Date	: 31-MAR-2008
Sampler	: ---	No. of samples received	: 18
Site	: ---	No. of samples analysed	: 18
Quote number	: SY/241/07		

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



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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
PHALAK INTHAKESONE	Organics Co-ordinator	Organics

Page : 3 of 8  
Work Order : ES0803975  
Client : ALS TECHNICHEM (HK)  
Project : ----



### 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 insufficient sample for analysis.

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

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

Key : CAS Number = Chemistry Abstract Services number  
LOR = Limit of reporting  
^ = This result is computed from individual analyte detections at or above the level of reporting

Page : 4 of 8  
 Work Order : ES0803975  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



**Analytical Results**

Sub-Matrix: WATER

Compound	CAS Number	LOR	Unit	Client sample ID				
				HK0803702-1	HK0803702-2	HK0803702-3	HK0803702-4	HK0803702-5
				10-MAR-2008 15:00				
				ES0803975-001	ES0803975-002	ES0803975-003	ES0803975-004	ES0803975-005
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>								
3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	94.8	84.6	98.0	99.9	95.4
Anthracene-d10	1719-06-8	0.1	%	96.4	88.1	99.7	103	100
4-Terphenyl-d14	1718-51-0	0.1	%	97.0	89.5	102	104	101



**Analytical Results**

Sub-Matrix: WATER

Compound	CAS Number	LOR	Unit	Client sample ID	HK0803702-6	HK0803702-7	HK0803702-8	HK0803702-9	HK0803702-10
				Civil sampling date / time	10-MAR-2008 15:00				
					ES0803975-006	ES0803975-007	ES0803975-008	ES0803975-009	ES0803975-010
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>									
3-Methylcholanthrene	56-49-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
2-Methylnaphthalene	91-57-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	83-32-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benz(a)anthracene	56-55-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L		<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L		<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>									
2-Fluorobiphenyl	321-60-8	0.1	%		97.1	93.9	104	101	107
Anthracene-d10	1719-06-8	0.1	%		101	94.5	107	103	108
4-Terphenyl-d14	1718-51-0	0.1	%		102	93.3	104	101	106



### Analytical Results

Sub-Matrix: WATER		Client sample ID	HK0803702-11	HK0803702-12	HK0803702-13	HK0803702-14	HK0803702-15	
		Client sampling date / time	10-MAR-2005 15:00	10-MAR-2008 15:00	10-MAR-2008 15:00	10-MAR-2008 15:00	10-MAR-2008 15:00	
Compound	CAS Number	LOR	Unit	ES0803975-011	ES0803975-012	ES0803975-013	ES0803975-014	ES0803975-015
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>								
3-Methylcholanthrene	56-48-5	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	53-32-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	208-96-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	120-12-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
<b>EP132T: Base/Neutral Extractable Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	105	90.7	94.3	103	95.2
Anthracene-d10	1719-06-8	0.1	%	107	91.6	99.2	103	95.1
4-Terphenyl-d14	1718-51-0	0.1	%	105	90.0	97.4	101	93.2



### Analytical Results

Sub-Matrix: WATER

Compound	CAS Number	LOD	Unit	Client sample ID	Client sampling date / time	ES0803975-016	ES0803975-017	ES0803975-018	---	---
				HK0803702-16	HK0803702-17	HK0803702-18	---	---		
				10-MAR-2008 15:00	10-MAR-2008 15:00	10-MAR-2008 15:00				
<b>EP132B: Polynuclear Aromatic Hydrocarbons</b>										
3-Methylcholanthrene	56-49-5	0.1	µg/L			<0.1	<0.1	<0.1		
2-Methylnaphthalene	91-57-6	0.1	µg/L			<0.1	<0.1	<0.1		
7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L			<0.1	<0.1	<0.1		
Acenaphthene	83-32-9	0.1	µg/L			<0.1	<0.1	<0.1		
Acenaphthylene	208-96-8	0.1	µg/L			<0.1	<0.1	<0.1		
Anthracene	120-12-7	0.1	µg/L			<0.1	<0.1	<0.1		
Benzo(a)anthracene	56-55-3	0.1	µg/L			<0.1	<0.1	<0.1		
Benzo(a)pyrene	50-32-8	0.05	µg/L			<0.05	<0.05	<0.05		
Benzo(b)fluoranthene	205-99-2	0.1	µg/L			<0.1	<0.1	<0.1		
Benzo(e)pyrene	192-97-2	0.1	µg/L			<0.1	<0.1	<0.1		
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L			<0.1	<0.1	<0.1		
Benzo(k)fluoranthene	207-08-9	0.1	µg/L			<0.1	<0.1	<0.1		
Chrysene	218-01-9	0.1	µg/L			<0.1	<0.1	<0.1		
Coronene	191-07-1	0.1	µg/L			<0.1	<0.1	<0.1		
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L			<0.1	<0.1	<0.1		
Fluoranthene	206-44-0	0.1	µg/L			<0.1	<0.1	<0.1		
Fluorene	86-73-7	0.1	µg/L			<0.1	<0.1	<0.1		
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L			<0.1	<0.1	<0.1		
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L			<0.1	<0.1	<0.1		
Naphthalene	91-20-3	0.1	µg/L			<0.1	<0.1	<0.1		
Perylene	198-55-0	0.1	µg/L			<0.1	<0.1	<0.1		
Phenanthrene	85-01-8	0.1	µg/L			<0.1	<0.1	<0.1		
Pyrene	129-00-0	0.1	µg/L			<0.1	<0.1	<0.1		
<b>EP132T: Base/Neutral Extractable Surrogates</b>										
2-Fluorobiphenyl	321-60-8	0.1	%			93.5	108	104		
Anthracene-d10	1719-06-8	0.1	%			93.8	102	106		
4-Terphenyl-d14	1718-51-0	0.1	%			92.3	99.8	103		

Page : 8 of 8  
Work Order : ES0803975  
Client : ALS TECHNICHEM (HK)  
Project : ---



### Surrogate Control Limits

Sub-Matrix: WATER

Recovery Limits (%)

Compound	CAS Number	Low	High
<b>EP1021: Base/Neutral Extractable Surrogates</b>			
2-Fluorobiphenyl	321-80-8	43	116
Anthracene-d10	1719-06-8	27	133
4-Terphenyl-d14	1718-51-0	33	141



Environmental Division

**QUALITY CONTROL REPORT**

Work Order	: <b>ES0803975</b>	Page	: 1 of 6
Client	: <b>ALS TECHNICHEM (HK)</b>	Laboratory	: Environmental Division Sydney
Contact	: <b>MS KERRY YUEN</b>	Contact	: <b>Ashwini Sharma</b>
Address	: <b>11/F CHUNG SHUN KNITTING CNTR 1-3 WING YIP STREET KWAI CHUNG, N.T HONG KONG HONG KONG</b>	Address	: <b>277-289 Woodpark Road Smithfield NSW Australia 2164</b>
E-mail	: <b>kerry.yuen@alsenviro.com</b>	E-mail	: <b>Ashwini.Sharma@alsenviro.com</b>
Telephone	: <b>+852 001585226101044</b>	Telephone	: <b>+61-2-8784 8555</b>
Facsimile	: <b>+852 26102021</b>	Facsimile	: <b>+61-2-8784 8500</b>
Project	: ---	QC Level	: <b>NEPM 1999 Schedule B(3) and ALS QCS3 requirement</b>
Site	: ---	Date Samples Received	: <b>25-MAR-2008</b>
C-O-C number	: ---	Issue Date	: <b>31-MAR-2008</b>
Sampler	: ---	No. of samples received	: <b>18</b>
Order number	: ---	No. of samples analysed	: <b>18</b>
Quote number	: <b>SY/241/07</b>		

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



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WORLD RECOGNISED  
ACCREDITATION

**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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
PHALAK INTHAKESONE	Organics Co-ordinator	Organics

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A Campbell Brothers Limited Co

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### 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 insufficient 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

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### **Laboratory Duplicate (DUP) Report**

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

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



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

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

Sub-Matrix: WATER

Method/Compound	CAS Number	LOF	Unit	Method Blank (MB)	Spike Concentration	Laboratory Control Spike (LCS) Report	
				Report Result		Spike Recovery (%)	Recovery Limits (%)
						Low	High
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 620114)</b>							
EP132: 3-Methylcholanthrene	56-49-5	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	104	65.8
EP132: 2-Methylnaphthalene	91-57-6	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	83.3	67.7
EP132: 7,12-Dimethylbenz(a)anthracene	57-97-6	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	101	11.6
EP132: Acenaphthene	83-32-9	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	96.1	73.2
EP132: Acenaphthylene	208-96-8	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	97.2	72.4
EP132: Anthracene	120-12-7	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	90.5	73.4
EP132: Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	107	73.6
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	106	75.2
EP132: Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	103	71.4
EP132: Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	106	75.3
EP132: Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	106	86.6
EP132: Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	110	74.8
EP132: Chrysene	218-01-9	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	106	69.6
EP132: Coronene	191-07-1	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	108	47.4
EP132: Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	106	71.5
EP132: Fluoranthene	206-44-0	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	92.4	74.8
EP132: Fluorene	86-73-7	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	97.8	72.9
EP132: Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	106	67.8
EP132: N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	20 µg/L	95.2	53.6
EP132: Naphthalene	91-20-3	0.1	µg/L	<0.1	---	---	---
		0.10	µg/L	---	2 µg/L	89.2	68.3

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Sub-Matrix: WATER

Method Component	CAS Number	Low	Unit	Method Blank (MB)	Spike Concentration	Laboratory Control Spike (LCS) Report		Recovery Limits (%)	
				Report		Spike Recovery (%)	Low	High	
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 520114) - continued</b>									
EP132: Perylene	198-55-0	0.1	µg/L	<0.1	---	---	---	---	---
		0.10	µg/L	---	2 µg/L	104	68	122	
EP132: Phenanthrene	85-01-6	0.1	µg/L	<0.1	---	---	---	---	---
		0.10	µg/L	---	2 µg/L	92.4	74.8	112	
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	---	---	---	---	---
		0.10	µg/L	---	2 µg/L	92.8	75.1	117	

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### **Matrix Spike (MS) Report**

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

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

Annex I

## Dolphin Sighting Records

**Project name: EM&A for Permanent Aviation Fuel Facility (PAFF)**

**Activity: Dolphin Impact Monitoring - Field Log Sheet**

\*Remark: Record the number of dolphin occurrence within the 250m exclusion (A) prior to dredging and (B) during dredging

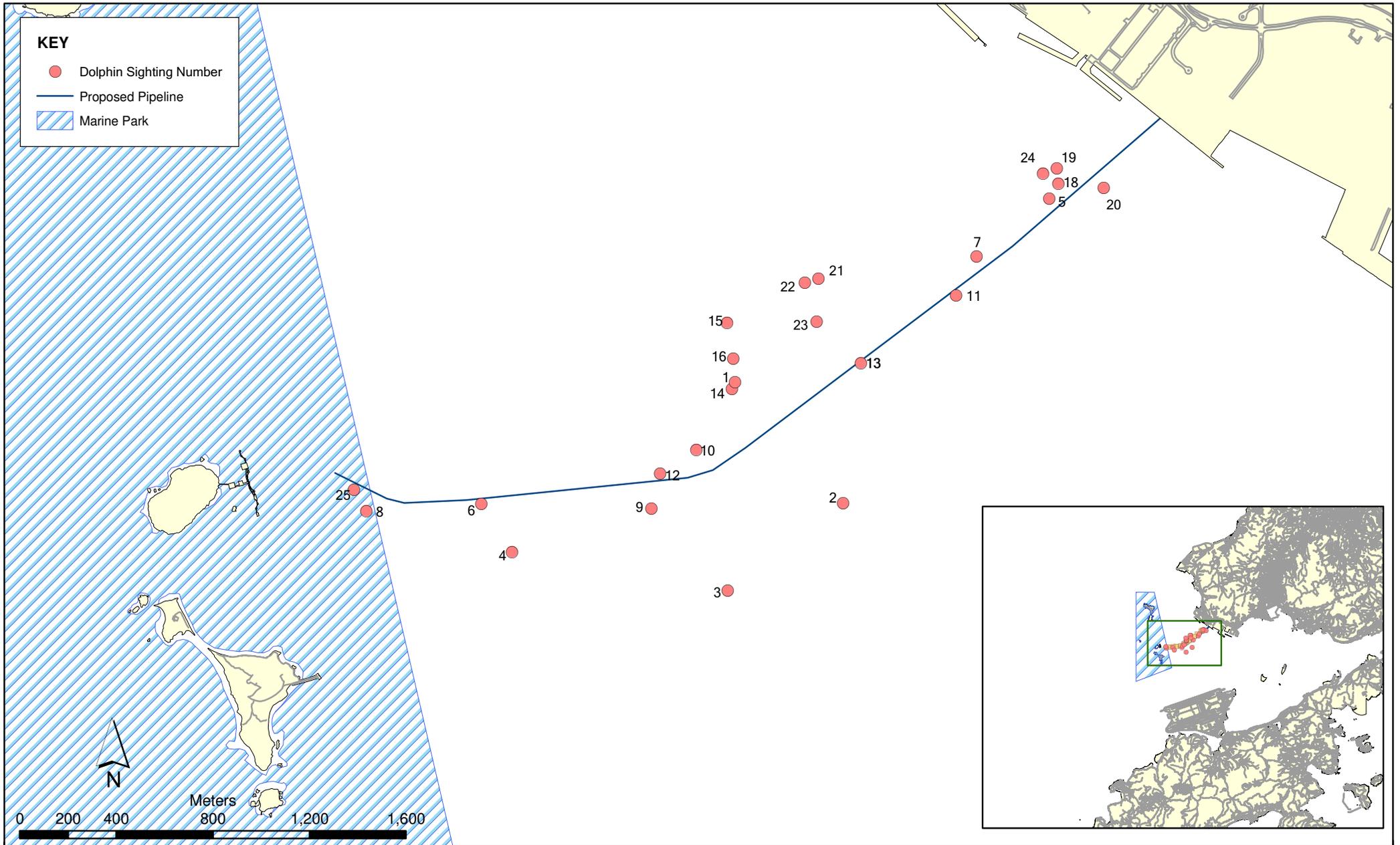
\*\* Sighting recorded when there is no dredging

Week	Date		Dredger 1 (GD 4503)		Dredger 2 (GD 654)		Observers' Names
			No. of Dolphin Occurrence*	Sighting No.	No. of Dolphin Occurrence	Sighting No.	
1	Mon	17-Dec	No Dredging	-	N/A		Richard Huang, Anton Tsang
	Tue	18-Dec	0	-			Richard Huang
	Wed	19-Dec	0	-			Anton Tsang
	Thu	20-Dec	0	-			Richard Huang
	Fri	21-Dec	3; No Dredging (pm)	1**			Anton Tsang
	Sat	22-Dec	No Dredging	-			Anton Tsang
	Sun	23-Dec	0	-			Richard Huang
2	Mon	24-Dec	0	-	NA		Yeung Chung Wing
	Tue	25-Dec	3	2			Richard Huang
	Wed	26-Dec	0	-			Richard Huang
	Thu	27-Dec	0	-			Anton Tsang
	Fri	28-Dec	1	3			Richard Huang
	Sat	29-Dec	0	-			Richard Huang
	Sun	30-Dec	0	-			Richard Huang
3	Mon	31-Dec	0; No Dredging (pm)	-	NA		Anton Tsang
	Tue	01-Jan	0	-			Richard Huang
	Wed	02-Jan	1; No Dredging (pm)	4**			Anton Tsang
	Thu	03-Jan	0	-			Richard Huang
	Fri	04-Jan	0; No Dredging	-			Richard Huang
	Sat	05-Jan	0; No Dredging	-			Anton Tsang
	Sun	06-Jan	0	-			Yeung Chung Wing
4	Mon	07-Jan	0	-	NA		Richard Huang
	Tue	08-Jan	0	-			Richard Huang
	Wed	09-Jan	0	-			Anton Tsang
	Thu	10-Jan	0	-			Anton Tsang
	Fri	11-Jan	0	-			Yeung Chung Wing
	Sat	12-Jan	0	-			Yeung Chung Wing
	Sun	13-Jan	0	-			Yeung Chung Wing

5	Mon	14-Jan	1 carcass	1 (in DCD sheet)	NA		Anton Tsang
	Tue	15-Jan	0	-			Richard Huang
	Wed	16-Jan	0	-			Richard Huang
	Thu	17-Jan	0	-			Yeung Chung Wing
	Fri	18-Jan	0	-			Richard Huang
	Sat	19-Jan	0	-			Richard Huang
	Sun	20-Jan	0	-			Yeung Chung Wing
6	Mon	21-Jan	0	-	NA		Richard Huang
	Tue	22-Jan	0	-			Richard Huang
	Wed	23-Jan	0	-			Anton Tsang
	Thu	24-Jan	1	5**	0	-	Richard Huang, Yeung Chung Wing
	Fri	25-Jan	0	-	0	-	Richard Huang, Anton Tsang
	Sat	26-Jan	0	-	0	-	Anton Tsang
	Sun	27-Jan	0	-	3	6**	Richard Huang, Yeung Chung Wing
7	Mon	28-Jan	0	-	0	-	Richard Huang
	Tue	29-Jan	0	-	0	-	Richard Huang
	Wed	30-Jan	0	-	0	-	Anton Tsang
	Thu	31-Jan	1	7**	0 (no dredging)	-	Richard Huang, Anton Tsang
	Fri	01-Feb	0	-	0	-	Richard Huang, Anton Tsang
	Sat	02-Feb	0	-	0	-	Richard Huang
	Sun	03-Feb	0	-	0	-	Yeung Chung Wing
8	Mon	04-Feb	0	-	1	8	Richard Huang, Anton Tsang
	Tue	05-Feb	0	-	0	-	Richard Huang
	Wed	06-Feb	0	-	0 (no dredging)	-	Richard Huang
	Thu	07-Feb	No Dolphin Monitoring				
	Fri	08-Feb	No Dolphin Monitoring				
	Sat	09-Feb	No Dolphin Monitoring				
	Sun	10-Feb	0	-	0	-	Richard Huang

9	Mon	11-Feb	0	-	0	-	Richard Huang	
	Tue	12-Feb	0	-	2	9	Richard Huang, Anton Tsang	
	Wed	13-Feb	0	-	0	-	Anton Tsang	
	Thu	14-Feb	0	-	0	-	Richard Huang	
	Fri	15-Feb	0	-	2	10	Anton Tsang	
	Sat	16-Feb	1	11**	1	12**	Richard Huang	
	Sun	17-Feb	0 (dredger under repair)		-	0	-	Richard Huang, Yeung Chung Wing
10	Mon	18-Feb	0	-	1	13	Richard Huang, Anton Tsang	
	Tue	19-Feb	0 (dredger under repair)		-	1	14**	Richard Huang
	Wed	20-Feb	0 (dredger changed to ST20)		-	2	15**	Richard Huang
	Thu	21-Feb	0	-	3, 4	16**, 17**	Richard Huang, Yeung Chung Wing	
	Fri	22-Feb	0	-	0	-	Richard Huang, Anton Tsang	
	Sat	23-Feb	1	18	0	-	Richard Huang	
	Sun	24-Feb	0	-	0	-	Yeung Chung Wing	
11	Mon	25-Feb	0	-	0 (am), No dredging (pm)	-	Richard Huang, Anton Tsang	
	Tue	26-Feb	0	-	No dredging for GD 654		Richard Huang	
	Wed	27-Feb	0	-	No dredging for GD 654		Anton Tsang	
	Thu	28-Feb	0	-	No dredging for GD 654		Richard Huang	
	Fri	29-Feb	0	-	No dredging for GD 654		Richard Huang	
	Sat	01-Mar	No Dolphin Monitoring					
	Sun	02-Mar	No Dolphin Monitoring					
12	Mon	03-Mar	No Dolphin Monitoring					
	Tue	04-Mar	No Dolphin Monitoring					
	Wed	05-Mar	No Dolphin Monitoring					
	Thu	06-Mar	0	-			Richard Huang	
	Fri	07-Mar	1,1	19,20			Richard Huang	
	Sat	08-Mar	0	-			Richard Huang	
	Sun	09-Mar	0	-			Richard Huang	

13	Mon	10-Mar	2	21	-	Anton Tsang
	Tue	11-Mar	No Dolphin Monitoring			
	Wed	12-Mar	2,2	22,23	-	Anton Tsang
	Thu	13-Mar	0	-	-	Richard Huang
	Fri	14-Mar	0	-	-	Anton Tsang
	Sat	15-Mar	0	-	-	Richard Huang
	Sun	16-Mar	0	-	-	Richard Huang
14	Mon	17-Mar	0	-	-	Richard Huang
	Tue	18-Mar	0	-	-	Richard Huang
	Wed	19-Mar	0	-	-	Anton Tsang
	Thu	20-Mar	0	-	-	Anton Tsang
	Fri	21-Mar	1	24	-	Richard Huang
	Sat	22-Mar	0	-	-	Richard Huang
	Sun	23-Mar	0	-	-	Yeung Chung Wing
15	Mon	24-Mar	0	-	-	Richard Huang
	Tue	25-Mar	1	25	-	Richard Huang
	Wed	26-Mar	0	-	-	Anton Tsang
	Thu	27-Mar	0	-	-	Yeung Chung Wing
	Fri	28-Mar	0	-	-	Anton Tsang
	Sat	29-Mar	0	-	-	Richard Huang
	Sun	30-Mar	0	-	-	Richard Huang
16	Mon	31-Mar	0	-	-	Richard Huang
	Tue	01-Apr	No Dolphin Monitoring			
	Wed	02-Apr				
	Thu	03-Apr				
	Fri	04-Apr				
	Sat	05-Apr				
	Sun	06-Apr				



Dolphin Sighting Locations (as of 31 March 2008)







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