



**CERTIFICATE OF ANALYSIS**

<b>CONTACT:</b> MS KAREN LUI	<b>Batch:</b> HK0804569
<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> 24/03/2008
<b>PROJECT:</b> EM&A FOR THE PERMANENT AVIATION FUEL FACILITY	<b>DATE OF ISSUE:</b> 15/04/2008
	<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  
**Fax:** 852-2610 2021  
**Email:** hongkong@alsenviro.com

  
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:** HK0804569  
**Date of Issue:** 15/04/2008  
**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>
HK0804569-1	ES0804514-1	MPB1 ME	24/03/2008
HK0804569-2	ES0804514-2	MPB1 ME DUP	24/03/2008
HK0804569-3	ES0804514-3	MPB2 ME	24/03/2008
HK0804569-4	ES0804514-4	MPB2 ME DUP	24/03/2008
HK0804569-5	ES0804514-5	MP ME	24/03/2008
HK0804569-6	ES0804514-6	MP ME DUP	24/03/2008
HK0804569-7	ES0804514-7	C2(NM5) ME	24/03/2008
HK0804569-8	ES0804514-8	C2(NM5) ME DUP	24/03/2008
HK0804569-9	ES0804514-9	MPB1 MF	24/03/2008
HK0804569-10	ES0804514-10	MPB1 MF DUP	24/03/2008
HK0804569-11	ES0804514-11	MPB2 MF	24/03/2008
HK0804569-12	ES0804514-12	MPB2 MF DUP	24/03/2008
HK0804569-13	ES0804514-13	MP MF	24/03/2008
HK0804569-14	ES0804514-14	MP MF DUP	24/03/2008
HK0804569-15	ES0804514-15	C1(NM3) MF	24/03/2008
HK0804569-16	ES0804514-16	C1(NM3) MF DUP	24/03/2008
HK0804569-17	ES0804514-17	C3(NM6) MF	24/03/2008
HK0804569-18	ES0804514-18	C3(NM6) MF DUP	24/03/2008



Environmental Division

**CERTIFICATE OF ANALYSIS**

Work Order	: <b>ES0804514</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	: ----	QC Level	: <b>NEPM 1999 Schedule B(3) and ALS QCS3 requirement</b>
Order number	: ----	Date Samples Received	: <b>03-APR-2008</b>
C-O-C number	: ----	Issue Date	: <b>14-APR-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

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Work Order : ES0804514  
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



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 Work Order : ES0804514  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



## Analytical Results

Sub-Matrix: WATER

Compound	CAS Number	LOR	Unit	Client sample ID	Client sample ID	Client sample ID	Client sample ID	Client sample ID
				HK0804569-1	HK0804569-2	HK0804569-3	HK0804569-4	HK0804569-5
				24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00
				ES0804514-001	ES0804514-002	ES0804514-003	ES0804514-004	ES0804514-005
<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	207-08-9	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	%	86.8	96.4	89.6	80.8	87.7
Anthracene-d10	1719-06-8	0.1	%	90.9	96.4	94.2	83.3	86.0
4-Terphenyl-d14	1718-51-0	0.1	%	93.0	98.9	96.3	85.2	88.5

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 Work Order : ES0804514  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	HK0804569-6	HK0804569-7	HK0804569-8	HK0804569-9	HK0804569-10
				24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00
				ES0804514-006	ES0804514-007	ES0804514-008	ES0804514-009	ES0804514-010
<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	%	98.5	89.5	89.6	88.6	99.0
Anthracene-d10	1719-06-8	0.1	%	94.0	89.9	96.7	88.1	93.6
4-Terphenyl-d14	1718-51-0	0.1	%	96.7	91.5	96.6	90.4	93.9



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 Work Order : ES0804514  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	HK0804569-11	HK0804569-12	HK0804569-13	HK0804569-14	HK0804569-15
				24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00
				ES0804514-011	ES0804514-012	ES0804514-013	ES0804514-014	ES0804514-015
<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	0.2
<b>EP132T: Base/Neutral Extractable Surrogates</b>								
2-Fluorobiphenyl	321-60-8	0.1	%	91.8	85.5	78.7	101	101
Anthracene-d10	1719-06-8	0.1	%	94.1	85.6	80.2	98.0	95.3
4-Terphenyl-d14	1718-51-0	0.1	%	95.1	85.9	80.2	98.8	96.0

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 Work Order : ES0804514  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



## Analytical Results

Sub-Matrix: WATER				Client sample ID	HK0804569-16	HK0804569-17	HK0804569-18	----	----
				Client sampling date / time	24-MAR-2008 15:00	24-MAR-2008 15:00	24-MAR-2008 15:00	----	----
Compound	CAS Number	LOR	Unit	ES0804514-016	ES0804514-017	ES0804514-018	----	----	----
<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	----	----	----
Benz(a)anthracene	56-55-3	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	<0.05	<0.05	----	----	----
Benzo(b)fluoranthene	205-99-2	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Benzo(e)pyrene	192-97-2	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Benzo(g,h,i)perylene	191-24-2	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Benzo(k)fluoranthene	207-08-9	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Chrysene	218-01-9	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Coronene	191-07-1	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Dibenz(a,h)anthracene	53-70-3	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Fluoranthene	206-44-0	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Fluorene	86-73-7	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Indeno(1,2,3-cd)pyrene	193-39-5	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
N-2-Fluorenyl Acetamide	53-96-3	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Naphthalene	91-20-3	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Perylene	198-55-0	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Phenanthrene	85-01-8	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
Pyrene	129-00-0	0.1	µg/L	<0.1	<0.1	<0.1	----	----	----
<b>EP132T: Base/Neutral Extractable Surrogates</b>									
2-Fluorobiphenyl	321-60-8	0.1	%	92.6	106	98.5	----	----	----
Anthracene-d10	1719-06-8	0.1	%	93.1	99.1	99.3	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	88.3	98.2	99.3	----	----	----





### Surrogate Control Limits

Sub-Matrix: 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	: <b>ES0804514</b>	Page	: 1 of 6
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	: ----	QC Level	: <b>NEPM 1999 Schedule B(3) and ALS QCS3 requirement</b>
Site	: ----	Date Samples Received	: <b>03-APR-2008</b>
C-O-C number	: ----	Issue Date	: <b>14-APR-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



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 : 2 of 6  
Work Order : ES0804514  
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.

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



Page : 3 of 6  
Work Order : ES0804514  
Client : ALS TECHNICHEM (HK)  
Project : ----



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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)	Laboratory Control Spike (LCS) Report				
				Report	Spike	Spike Recovery (%)		Recovery Limits (%)	
				Result	Concentration	LCS	Low	High	
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 627083)</b>									
EP132: 3-Methylcholanthrene	56-49-5	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 103	---- 65.8	---- 121	
EP132: 2-Methylnaphthalene	91-57-6	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 82.2	---- 67.7	---- 112	
EP132: 7.12-Dimethylbenz(a)anthracene	57-97-6	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 97.3	---- 11.6	---- 146	
EP132: Acenaphthene	83-32-9	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 89.5	---- 73.2	---- 111	
EP132: Acenaphthylene	208-96-8	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 93.0	---- 72.4	---- 112	
EP132: Anthracene	120-12-7	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 96.6	---- 73.4	---- 113	
EP132: Benz(a)anthracene	56-55-3	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 104	---- 73.6	---- 114	
EP132: Benzo(a)pyrene	50-32-8	0.05	µg/L	<0.05	2 µg/L	104	75.2	117	
EP132: Benzo(b)fluoranthene	205-99-2	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 113	---- 71.4	---- 119	
EP132: Benzo(e)pyrene	192-97-2	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 101	---- 75.3	---- 118	
EP132: Benzo(g,h,i)perylene	191-24-2	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 103	---- 66.6	---- 121	
EP132: Benzo(k)fluoranthene	207-08-9	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 90.0	---- 74.8	---- 118	
EP132: Chrysene	218-01-9	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 102	---- 69.6	---- 120	
EP132: Coronene	191-07-1	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 105	---- 47.4	---- 131	
EP132: Dibenz(a,h)anthracene	53-70-3	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 104	---- 71.5	---- 117	
EP132: Fluoranthene	206-44-0	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 97.8	---- 74.8	---- 117	
EP132: Fluorene	86-73-7	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 94.2	---- 72.9	---- 114	
EP132: Indeno(1.2.3.cd)pyrene	193-39-5	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 103	---- 67.8	---- 119	
EP132: N-2-Fluorenyl Acetamide	53-96-3	0.1 0.10	µg/L µg/L	<0.1 ----	---- 20 µg/L	---- 87.5	---- 53.6	---- 131	
EP132: Naphthalene	91-20-3	0.1 0.10	µg/L µg/L	<0.1 ----	---- 2 µg/L	---- 91.0	---- 68.3	---- 116	

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 Work Order : ES0804514  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit		Result	Spike	Spike Recovery (%)	Recovery Limits (%)
				Concentration		LCS	Low	High
<b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 627083) - 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	85-01-8	0.1	µg/L	<0.1	----	----	----	----
		0.10	µg/L	----	2 µg/L	96.6	74.8	112
EP132: Pyrene	129-00-0	0.1	µg/L	<0.1	----	----	----	----
		0.10	µg/L	----	2 µg/L	91.1	75.1	117



Page : 6 of 6  
Work Order : ES0804514  
Client : ALS TECHNICHEM (HK)  
Project : ----

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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.**



### CERTIFICATE OF ANALYSIS

<i>Client</i>	: ERM HONG KONG	<i>Laboratory</i>	: ALS Technichem (HK) Pty Ltd	<i>Page</i>	: 1 of 7
<i>Contact</i>	: MS KAREN LUI	<i>Contact</i>	: Alice Wong	<i>Work Order</i>	: <b>HK0804569</b>
<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>	: 24 Mar 2008
<i>Order number</i>	: ---			<i>Date of issue</i>	: 15 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 HK0804569 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 HK0804569 : **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 :	HK0804569-001	HK0804569-002	HK0804569-003	HK0804569-004	HK0804569-005
				Sample Date / Time :	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 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>93.7</b>	<b>94.4</b>	<b>102</b>	<b>105</b>	<b>102</b>	
Tetrachlorometaxylene	877-09-8	0.1	%	<b>101</b>	<b>97.8</b>	<b>86.4</b>	<b>82.7</b>	<b>112</b>	
Dibutylchlorendate	1770-80-5	0.1	%	<b>113</b>	<b>105</b>	<b>105</b>	<b>84.6</b>	<b>120</b>	





## Analytical Results

				Client Sample ID :	MP ME DUP	C2 (NM5) ME	C2 (NM5) ME DUP	MPB1 MF	MPB1 MF DUP
				Laboratory Sample ID :	HK0804569-006	HK0804569-007	HK0804569-008	HK0804569-009	HK0804569-010
				Sample Date / Time :	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 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	%	116	106	101	94.2	94.6	
Tetrachlorometaxylene	877-09-8	0.1	%	108	97.0	120	118	99.7	
Dibutylchloroendate	1770-80-5	0.1	%	104	107	85.4	102	82.0	



**Analytical Results**

				Client Sample ID :	MPB2 MF	MPB2 MF DUP	MP MF	MP MF DUP	C1 (NM3) MF
				Laboratory Sample ID :	HK0804569-011	HK0804569-012	HK0804569-013	HK0804569-014	HK0804569-015
				Sample Date / Time :	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 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	%	112	98.9	105	98.5	114	
Tetrachlorometaxylene	877-09-8	0.1	%	88.7	106	116	92.7	116	
Dibutylchlorendate	1770-80-5	0.1	%	80.6	106	91.2	94.3	91.3	



## Analytical Results

				Client Sample ID :	C1 (NM3) MF DUP	C3 (NM6) MF	C3 (NM6 ) MF DUP		
				Laboratory Sample ID :	HK0804569-016	HK0804569-017	HK0804569-018		
				Sample Date / Time :	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]	[ 24 Mar 2008 ]		
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	%	107	85.1	92.9			
Tetrachlorometaxylene	877-09-8	0.1	%	85.8	88.0	105			
Dibutylchlorendate	1770-80-5	0.1	%	115	89.5	122			



**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>EP-065A: PCB Single Congeners (QC Lot: 624447)</b>								
HK0804569-001	MPB1 ME	PCB 8	34883-43-7	0.01	µg/L	<0.01	<0.01	0.0
		PCB 18	37680-65-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 28	7012-37-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 52	35693-99-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 44	41464-39-5	0.01	µg/L	<0.01	<0.01	0.0
		PCB 66	32598-10-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 101	37680-73-2	0.01	µg/L	<0.01	<0.01	0.0
		PCB 77	32598-13-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 149	38380-04-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 118	31508-00-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 153	35065-27-1	0.01	µg/L	<0.01	<0.01	0.0
		PCB 105	32598-14-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 126	57465-28-8	0.01	µg/L	<0.01	<0.01	0.0
		PCB 187	52663-68-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 128	38380-07-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 156	38380-08-4	0.01	µg/L	<0.01	<0.01	0.0
		PCB 180	35065-29-3	0.01	µg/L	<0.01	<0.01	0.0
		PCB 169	60044-26-0	0.01	µg/L	<0.01	<0.01	0.0
		PCB 170	35065-30-6	0.01	µg/L	<0.01	<0.01	0.0
		PCB 195	52663-78-2	0.01	µg/L	<0.01	<0.01	0.0
<b>EP-065B: Organochlorine Pesticides (QC Lot: 624447)</b>								
HK0804569-001	MPB1 ME	4,4'-DDT	50-29-3	0.01	µg/L	<0.01	<0.01	0.0
		4,4'-DDE	72-55-9	0.01	µg/L	<0.01	<0.01	0.0
		4,4'-DDD	72-54-8	0.01	µg/L	<0.01	<0.01	0.0

**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>EP-065A: PCB Single Congeners (QCLot: 624447)</b>											
PCB 8	34883-43-7	0.01	µg/L	<0.01	100 µg/L	103	----	50	130	----	----
PCB 18	37680-65-2	0.01	µg/L	<0.01	100 µg/L	90.0	----	50	130	----	----
PCB 28	7012-37-5	0.01	µg/L	<0.01	100 µg/L	82.9	----	50	130	----	----
PCB 52	35693-99-3	0.01	µg/L	<0.01	100 µg/L	99.6	----	50	130	----	----
PCB 44	41464-39-5	0.01	µg/L	<0.01	100 µg/L	88.5	----	50	130	----	----
PCB 66	32598-10-0	0.01	µg/L	<0.01	100 µg/L	103	----	50	130	----	----
PCB 101	37680-73-2	0.01	µg/L	<0.01	100 µg/L	106	----	50	130	----	----





**Matrix Type: WATER**

Method: Analysis Description		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results							
		CAS number	LOR	Units	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPDs (%)	
							SCS	DCS	Low	High	Value	Control Limit
<b>EP-065A: PCB Single Congeners (QCLot: 624447) - continued</b>												
PCB 77	32598-13-3	0.01	µg/L	<0.01	100 µg/L	92.4	----	50	130	----	----	
PCB 149	38380-04-0	0.01	µg/L	<0.01	100 µg/L	99.3	----	50	130	----	----	
PCB 118	31508-00-6	0.01	µg/L	<0.01	100 µg/L	109	----	50	130	----	----	
PCB 153	35065-27-1	0.01	µg/L	<0.01	100 µg/L	87.7	----	50	130	----	----	
PCB 105	32598-14-4	0.01	µg/L	<0.01	100 µg/L	88.7	----	50	130	----	----	
PCB 126	57465-28-8	0.01	µg/L	<0.01	100 µg/L	93.9	----	50	130	----	----	
PCB 187	52663-68-0	0.01	µg/L	<0.01	100 µg/L	97.4	----	50	130	----	----	
PCB 128	38380-07-3	0.01	µg/L	<0.01	100 µg/L	78.0	----	50	130	----	----	
PCB 156	38380-08-4	0.01	µg/L	<0.01	100 µg/L	95.9	----	50	130	----	----	
PCB 180	35065-29-3	0.01	µg/L	<0.01	100 µg/L	85.8	----	50	130	----	----	
PCB 169	60044-26-0	0.01	µg/L	<0.01	100 µg/L	88.4	----	50	130	----	----	
PCB 170	35065-30-6	0.01	µg/L	<0.01	100 µg/L	91.9	----	50	130	----	----	
PCB 195	52663-78-2	0.01	µg/L	<0.01	100 µg/L	103	----	50	130	----	----	
<b>EP-065B: Organochlorine Pesticides (QCLot: 624447)</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