



## CERTIFICATE OF ANALYSIS

|              |  |              |   |                         |               |
|--------------|--|--------------|---|-------------------------|---------------|
| Client       | : ERM HONG KONG  | Laboratory   | : ALS Technichem HK Pty Ltd   | Page                    | : 1 of 7      |
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| Project      | : TUEN MUN   | Quote number | : HK/1426c/2009**   | Date Samples Received   | : 25-NOV-2009 |
| Order number | : ----   |              |   | Issue Date              | : 09-DEC-2009 |
| C-O-C number | : ----   |              |   | No. of samples received | : 18          |
| Site         | : ----   |              |   | No. of samples analysed | : 18          |

### General Comments

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. All pages of this report have been checked and approved for release. When date(s) and/or time(s) are shown bracketed, these have been assumed by the laboratory for processing purposes. If the sampling time is displayed as 0:00 the information was not provided by client. The completion date of analysis is: 02-DEC-2009

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

Specific comments for Work Order: **HK0924723**

**Sample(s) were collected by ALS Technichem (HK) staff on 25 November,2009.**

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

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*Signatories*

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*Position*

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*Authorised results for*

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A Campbell Brothers Limited Company



### Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

| Compound  | CAS Number | LOR  | Unit | MPB1 MID-EBB  | MPB1 MID-EBB DUP | MPB2 MID-EBB  | MPB2 MID-EBB DUP                                       | MP MID-EBB    |
|---|------------|------|------|---------------|------------------|---------------|--|---------------|
|   |            |      |      | [25-NOV-2009] | [25-NOV-2009]    | [25-NOV-2009] | [25-NOV-2009]  | [25-NOV-2009] |
|   |            |      |      | HK0924723-001 | HK0924723-002    | HK0924723-003 | HK0924723-004  | HK0924723-005 |
| <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         |
| PCB 18  | 37680-65-2 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 28  | 7012-37-5  | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 52  | 35693-99-3 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 44  | 41464-39-5 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 66  | 32598-10-0 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 101   | 37680-73-2 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 77  | 32598-13-3 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 149   | 38380-04-0 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 118   | 31508-00-6 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 153   | 35065-27-1 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 105   | 32598-14-4 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 126   | 57465-28-8 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 187   | 52663-68-0 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 128   | 38380-07-3 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 156   | 38380-08-4 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 180   | 35065-29-3 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 169   | 60044-26-0 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 170   | 35065-30-6 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| PCB 195   | 52663-78-2 | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| <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         |
| 4,4'-DDE  | 72-55-9    | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| 4,4'-DDD  | 72-54-8    | 0.01 | µg/L | <0.01         | <0.01            | <0.01         | <0.01  | <0.01         |
| <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  | %    | 87.6          | 91.0             | 92.6          | 94.2   | 86.2          |



| Sub-Matrix: WATER   |            |      |      | Client sample ID | MP MID-EBB DUP | C2 (NM5) MID-EBB | C2 (NM5) MID-EBB DUP | MPB1 MID-FLOOD   | MPB1 MID-FLOOD DUP |
|---|------------|------|------|------------------|----------------|------------------|----------------------|--|--------------------|
| Client sampling date / time   |            |      |      | [25-NOV-2009]    | [25-NOV-2009]  | [25-NOV-2009]    | [25-NOV-2009]        | [25-NOV-2009]  |                    |
| Compound  | CAS Number | LOR  | Unit | HK0924723-006    | HK0924723-007  | HK0924723-008    | HK0924723-009        | HK0924723-010  |                    |
| <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  |                    |
| PCB 18  | 37680-65-2 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 28  | 7012-37-5  | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 52  | 35693-99-3 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 44  | 41464-39-5 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 66  | 32598-10-0 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 101   | 37680-73-2 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 77  | 32598-13-3 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 149   | 38380-04-0 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 118   | 31508-00-6 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 153   | 35065-27-1 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 105   | 32598-14-4 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 126   | 57465-28-8 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 187   | 52663-68-0 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 128   | 38380-07-3 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 156   | 38380-08-4 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 180   | 35065-29-3 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 169   | 60044-26-0 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 170   | 35065-30-6 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| PCB 195   | 52663-78-2 | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| <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  |                    |
| 4,4'-DDE  | 72-55-9    | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| 4,4'-DDD  | 72-54-8    | 0.01 | µg/L | <0.01            | <0.01          | <0.01            | <0.01                | <0.01  |                    |
| <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  | %    | 87.0             | 99.8           | 90.5             | 84.9                 | 88.4   |                    |



| Sub-Matrix: WATER   |            |      |      | Client sample ID | MPB2 MID-FLOOD | MPB2 MID-FLOOD DUP | MP MID-FLOOD  | MP MID-FLOOD DUP                                       | C1 (NM3) MID-FLOOD |
|---|------------|------|------|------------------|----------------|--------------------|---------------|--|--------------------|
| Client sampling date / time   |            |      |      | [25-NOV-2009]    | [25-NOV-2009]  | [25-NOV-2009]      | [25-NOV-2009] | [25-NOV-2009]  | [25-NOV-2009]      |
| Compound  | CAS Number | LOR  | Unit | HK0924723-011    | HK0924723-012  | HK0924723-013      | HK0924723-014 | HK0924723-015  |                    |
| <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  | %    | 91.9             | 96.8           | 95.3               | 88.6          | 98.6   |                    |



| Sub-Matrix: WATER   |            |      |      | Client sample ID | C1 (NM3) MID-FLOOD<br>DUP | C3 (NM6) MID-FLOOD | C3 (NM6) MID-FLOOD<br>DUP                              |  |  |
|---|------------|------|------|------------------|---------------------------|--------------------|--|--|--|
| Client sampling date / time   |            |      |      | [25-NOV-2009]    | [25-NOV-2009]             | [25-NOV-2009]      |  |  |  |
| Compound  | CAS Number | LOR  | Unit | HK0924723-016    | HK0924723-017             | HK0924723-018      |  |  |  |
| <b>EP-065A: PCB Single Congeners</b>                                  |            |      |      |                  |                           |                    |  |  |  |
| PCB 8   | 34883-43-7 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 18  | 37680-65-2 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 28  | 7012-37-5  | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 52  | 35693-99-3 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 44  | 41464-39-5 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 66  | 32598-10-0 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 101   | 37680-73-2 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 77  | 32598-13-3 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 149   | 38380-04-0 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 118   | 31508-00-6 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 153   | 35065-27-1 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 105   | 32598-14-4 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 126   | 57465-28-8 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 187   | 52663-68-0 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 128   | 38380-07-3 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 156   | 38380-08-4 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 180   | 35065-29-3 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 169   | 60044-26-0 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 170   | 35065-30-6 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| PCB 195   | 52663-78-2 | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| <b>EP-065B: Organochlorine Pesticides</b>                             |            |      |      |                  |                           |                    |  |  |  |
| 4,4'-DDT  | 50-29-3    | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| 4,4'-DDE  | 72-55-9    | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| 4,4'-DDD  | 72-54-8    | 0.01 | µg/L | <0.01            | <0.01                     | <0.01              |  |  |  |
| <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  | %    | 89.9             | 97.4                      | 93.0               |  |  |  |



### Laboratory Duplicate (DUP) Report

| Matrix: WATER   |                  |                  |            | Laboratory Duplicate (DUP) Report |       |                 |                  |         |
|---|------------------|------------------|------------|-----------------------------------|-------|-----------------|------------------|---------|
| Laboratory sample ID  | Client sample ID | Method: Compound | CAS Number | LOR                               | Unit  | Original Result | Duplicate Result | RPD (%) |
| <b>EP-065A: PCB Single Congeners (QC Lot: 1181857)</b>      |                  |                  |            |                                   |       |                 |                  |         |
| HK0924723-011   | MPB2 MID-FLOOD   | 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: 1181857)</b> |                  |                  |            |                                   |       |                 |                  |         |
| HK0924723-011   | MPB2 MID-FLOOD   | 4,4'-DDT         | 50-29-3    | 0.01                              | µg/L  | <0.01           | <0.01            | 0.0     |
|   |                  | 4,4'-DDE         | 72-55-9    | 0.01                              | µg/L  | <0.01           | <0.01            | 0.0     |
|   |                  | 4,4'-DDD         | 72-54-8    | 0.01                              | µg/L  | <0.01           | <0.01            | 0.0     |

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

| Matrix: WATER  |            |      |      | Method Blank (MB) Report |                     | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report |      |                     |      |         |               |
|--|------------|------|------|--------------------------|---------------------|--|------|---------------------|------|---------|---------------|
| Method: Compound                                       | CAS Number | LOR  | Unit | Result                   | Spike Concentration | Spike Recovery (%)   |      | Recovery Limits (%) |      | RPD (%) |               |
|  |            |      |      |                          |                     | LCS  | DCS  | Low                 | High | Value   | Control Limit |
| <b>EP-065A: PCB Single Congeners (QC Lot: 1181857)</b> |            |      |      |                          |                     |  |      |                     |      |         |               |
| PCB 8  | 34883-43-7 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 76.3   | ---- | 50                  | 130  | ----    | ----          |
| PCB 18   | 37680-65-2 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 88.7   | ---- | 50                  | 130  | ----    | ----          |
| PCB 28   | 7012-37-5  | 0.01 | µg/L | <0.01                    | 100 µg/L            | 78.0   | ---- | 50                  | 130  | ----    | ----          |
| PCB 52   | 35693-99-3 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 78.2   | ---- | 50                  | 130  | ----    | ----          |
| PCB 44   | 41464-39-5 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 84.0   | ---- | 50                  | 130  | ----    | ----          |
| PCB 66   | 32598-10-0 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 83.8   | ---- | 50                  | 130  | ----    | ----          |
| PCB 101  | 37680-73-2 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 82.4   | ---- | 50                  | 130  | ----    | ----          |
| PCB 77   | 32598-13-3 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 95.8   | ---- | 50                  | 130  | ----    | ----          |
| PCB 149  | 38380-04-0 | 0.01 | µg/L | <0.01                    | 100 µg/L            | 91.4   | ---- | 50                  | 130  | ----    | ----          |



| Matrix: WATER  |            | Method Blank (MB) Report |      |        | Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report |                    |      |                     |      |         |               |
|--|------------|--------------------------|------|--------|--|--------------------|------|---------------------|------|---------|---------------|
| Method: Compound   | CAS Number | LOR                      | Unit | Result | Spike Concentration  | Spike Recovery (%) |      | Recovery Limits (%) |      | RPD (%) |               |
|  |            |                          |      |        |  | LCS                | DCS  | Low                 | High | Value   | Control Limit |
| <b>EP-065A: PCB Single Congeners (QC Lot: 1181857) - Continued</b> |            |                          |      |        |  |                    |      |                     |      |         |               |
| PCB 118  | 31508-00-6 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 91.5               | ---- | 50                  | 130  | ----    | ----          |
| PCB 153  | 35065-27-1 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 91.4               | ---- | 50                  | 130  | ----    | ----          |
| PCB 105  | 32598-14-4 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 91.2               | ---- | 50                  | 130  | ----    | ----          |
| PCB 126  | 57465-28-8 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 94.8               | ---- | 50                  | 130  | ----    | ----          |
| PCB 187  | 52663-68-0 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 90.0               | ---- | 50                  | 130  | ----    | ----          |
| PCB 128  | 38380-07-3 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 89.7               | ---- | 50                  | 130  | ----    | ----          |
| PCB 156  | 38380-08-4 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 84.7               | ---- | 50                  | 130  | ----    | ----          |
| PCB 180  | 35065-29-3 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 85.4               | ---- | 50                  | 130  | ----    | ----          |
| PCB 169  | 60044-26-0 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 82.7               | ---- | 50                  | 130  | ----    | ----          |
| PCB 170  | 35065-30-6 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 86.3               | ---- | 50                  | 130  | ----    | ----          |
| PCB 195  | 52663-78-2 | 0.01                     | µg/L | <0.01  | 100 µg/L   | 84.0               | ---- | 50                  | 130  | ----    | ----          |
| <b>EP-065B: Organochlorine Pesticides (QC Lot: 1181857)</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  | 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  | ----    | ----          |

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

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

**Surrogate Control Limits**

| Sub-Matrix: WATER   |            | Recovery Limits (%) |      |
|---|------------|---------------------|------|
| Compound  | CAS Number | Low                 | High |
| <b>EP-065S: PCB Congeners and Organochlorine Pesticides Surrogate</b> |            |                     |      |
| Decachlorobiphenyl  | 2051-24-3  | 50                  | 130  |



Environmental Division

**CERTIFICATE OF ANALYSIS**

|                     |   |                                |   |
|---------------------|---|--------------------------------|---|
| <b>Work Order</b>   | : <b>ES0918392</b>  | <b>Page</b>                    | : 1 of 8  |
| <b>Client</b>       | : <b>ALS TECHNICHEM (HK)</b>  | <b>Laboratory</b>              | : Environmental Division Sydney                       |
| <b>Contact</b>      | : <b>MR IVAN LEUNG</b>  | <b>Contact</b>                 | : Charlie Pierce                                      |
| <b>Address</b>      | : 11/F CHUNG SHUN KNITTING CNTR<br>1-3 WING YIP STREET<br>KWAI CHUNG, N.T HONG KONG HONG KONG | <b>Address</b>                 | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| <b>E-mail</b>       | : ivan.leung@alsenviro.com  | <b>E-mail</b>                  | : charlie.pierce@alsenviro.com                        |
| <b>Telephone</b>    | : +852 001185226101044  | <b>Telephone</b>               | : +61-2-8784 8555                                     |
| <b>Facsimile</b>    | : +852 26102021   | <b>Facsimile</b>               | : +61-2-8784 8500                                     |
| <b>Project</b>      | : ----  | <b>QC Level</b>                | : NEPM 1999 Schedule B(3) and ALS QCS3 requirement    |
| <b>Order number</b> | : ----  | <b>Date Samples Received</b>   | : 02-DEC-2009   |
| <b>C-O-C number</b> | : ----  | <b>Issue Date</b>              | : 11-DEC-2009   |
| <b>Sampler</b>      | : ----  | <b>No. of samples received</b> | : 18  |
| <b>Site</b>         | : ----  | <b>No. of samples analysed</b> | : 18  |
| <b>Quote number</b> | : 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



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> |
|--------------------|------------------------|-------------------------------|
| Edwandy Fadjar     | Senior Organic Chemist | Organics                      |



Page : 3 of 8  
Work Order : ES0918392  
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 = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

^ = This result is computed from individual analyte detections at or above the level of reporting



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

| Compound   | CAS Number | LOR  | Unit | HK0924723-1       | HK0924723-2       | HK0924723-3       | HK0924723-4       | HK0924723-5       |
|--|------------|------|------|-------------------|-------------------|-------------------|-------------------|-------------------|
|  |            |      |      | MPB1 MID-EBB      | MPB1 MID-EBB-DUP  | MPB2 MID-EBB      | MPB2 MID-EBB DUP  | MP MID-EBB        |
|  |            |      |      | 25-NOV-2009 15:00 | 25-NOV-2009 15:00 | 25-NOV-2009 15:00 | 25-NOV-2009 15:00 | 25-NOV-2009 15:00 |
|  |            |      |      | ES0918392-001     | ES0918392-002     | ES0918392-003     | ES0918392-004     | ES0918392-005     |
| <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  | %    | 89.8              | 79.5              | 95.5              | 95.6              | 98.0              |
| Anthracene-d10                                     | 1719-06-8  | 0.1  | %    | 102               | 94.0              | 113               | 110               | 113               |
| 4-Terphenyl-d14                                    | 1718-51-0  | 0.1  | %    | 99.9              | 89.2              | 108               | 112               | 115               |



### Analytical Results

Sub-Matrix: WATER

Client sample ID

| Compound   | CAS Number | LOR  | Unit | HK0924723-6<br>MP MID-EBB-DUP | HK0924723-7<br>C2 (NM5) MID-EBB | HK0924723-8<br>C2 (NM5) MID-EBB<br>DUP | HK0924723-9<br>MPB1 MID-FLOOD | HK0924723-10<br>MPB1 MID-FLOOD-DUP |
|--|------------|------|------|-------------------------------|---------------------------------|--|-------------------------------|------------------------------------|
|  |            |      |      | Client sampling date / time   | Client sampling date / time     | Client sampling date / time            | Client sampling date / time   | Client sampling date / time        |
|  |            |      |      | 25-NOV-2009 15:00             | 25-NOV-2009 15:00               | 25-NOV-2009 15:00                      | 25-NOV-2009 15:00             | 25-NOV-2009 15:00                  |
|  |            |      |      | ES0918392-006                 | ES0918392-007                   | ES0918392-008                          | ES0918392-009                 | ES0918392-010                      |
| <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  | %    | 95.1                          | 113                             | 94.4                                   | 78.2                          | 95.9                               |
| Anthracene-d10                                     | 1719-06-8  | 0.1  | %    | 109                           | 129                             | 111                                    | 96.3                          | 115                                |
| 4-Terphenyl-d14                                    | 1718-51-0  | 0.1  | %    | 107                           | 127                             | 109                                    | 93.3                          | 113                                |

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 Work Order : ES0918392  
 Client : ALS TECHNICHEM (HK)  
 Project : ----



## Analytical Results

Sub-Matrix: WATER

Client sample ID

Client sampling date / time

| Compound   | CAS Number | LOR  | Unit | HK0924723-11      | HK0924723-12       | HK0924723-13      | HK0924723-14      | HK0924723-15       |
|--|------------|------|------|-------------------|--------------------|-------------------|-------------------|--------------------|
|  |            |      |      | MPB2 MID-FLOOD    | MPB2 MID-FLOOD-DUP | MP MID-FLOOD      | MP MID-FLOOD-DUP  | C1 (NM3) MID-FLOOD |
|  |            |      |      | 25-NOV-2009 15:00 | 25-NOV-2009 15:00  | 25-NOV-2009 15:00 | 25-NOV-2009 15:00 | 25-NOV-2009 15:00  |
|  |            |      |      | ES0918392-011     | ES0918392-012      | ES0918392-013     | ES0918392-014     | ES0918392-015      |
| <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              | <0.1               |
| <b>EP132T: Base/Neutral Extractable Surrogates</b> |            |      |      |                   |                    |                   |                   |                    |
| 2-Fluorobiphenyl                                   | 321-60-8   | 0.1  | %    | 82.0              | 88.4               | 107               | 93.8              | 83.6               |
| Anthracene-d10                                     | 1719-06-8  | 0.1  | %    | 100               | 101                | 119               | 107               | 103                |
| 4-Terphenyl-d14                                    | 1718-51-0  | 0.1  | %    | 95.8              | 97.9               | 116               | 103               | 97.1               |

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 Client : ALS TECHNICHEM (HK)  
 Project : ----



### Analytical Results

| Sub-Matrix: WATER                                  |            |      |      | Client sample ID  |               | HK0924723-16<br>C1 (NM3)<br>MID-FLOOD-DUP | HK0924723-17<br>C3 (NM6) MID-FLOOD | HK0924723-18<br>C3 (NM6)<br>MID-FLOOD-DUP | ---- | ---- |
|--|------------|------|------|-------------------|---------------|---|------------------------------------|---|------|------|
| Client sampling date / time                        |            |      |      | 25-NOV-2009 15:00 |               | 25-NOV-2009 15:00                         | 25-NOV-2009 15:00                  | 25-NOV-2009 15:00                         | ---- | ---- |
| Compound   | CAS Number | LOR  | Unit | ES0918392-016     | ES0918392-017 | ES0918392-018                             | ----                               | ----                                      | ---- | ---- |
| <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  | %    | 92.4              | 94.9          | 92.8                                      | ----                               | ----                                      | ---- | ---- |
| Anthracene-d10                                     | 1719-06-8  | 0.1  | %    | 106               | 115           | 112                                       | ----                               | ----                                      | ---- | ---- |
| 4-Terphenyl-d14                                    | 1718-51-0  | 0.1  | %    | 101               | 111           | 108                                       | ----                               | ----                                      | ---- | ---- |

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### 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>ES0918392</b>  | Page                    | : 1 of 5  |
| Client       | : <b>ALS TECHNICHEM (HK)</b>  | Laboratory              | : Environmental Division Sydney                       |
| Contact      | : MR IVAN LEUNG   | Contact                 | : Charlie Pierce                                      |
| Address      | : 11/F CHUNG SHUN KNITTING CNTR<br>1-3 WING YIP STREET<br>KWAI CHUNG, N.T HONG KONG HONG KONG | Address                 | : 277-289 Woodpark Road Smithfield NSW Australia 2164 |
| E-mail       | : ivan.leung@alsenviro.com  | E-mail                  | : charlie.pierce@alsenviro.com                        |
| Telephone    | : +852 001185226101044  | Telephone               | : +61-2-8784 8555                                     |
| Facsimile    | : +852 26102021   | Facsimile               | : +61-2-8784 8500                                     |
| Project      | : ----  | QC Level                | : NEPM 1999 Schedule B(3) and ALS QCS3 requirement    |
| Site         | : ----  | Date Samples Received   | : 02-DEC-2009   |
| C-O-C number | : ----  | Issue Date              | : 11-DEC-2009   |
| 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.

| <i>Signatories</i> | <i>Position</i>        | <i>Accreditation Category</i> |
|--------------------|------------------------|-------------------------------|
| Edwandy Fadjar     | Senior Organic Chemist | Organics                      |

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Work Order : ES0918392  
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 = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.  
                  LOR = Limit of reporting  
                  RPD = Relative Percentage Difference  
                  # = Indicates failed QC





### 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                                 | Recovery Limits (%) |      |      |
|   |            |      |      | Result            | Concentration                         | LCS                 | Low  | High |
| <b>EP132B: Polynuclear Aromatic Hydrocarbons (QCLot: 1182162)</b> |            |      |      |                   |                                       |                     |      |      |
| EP132: 3-Methylcholanthrene                                       | 56-49-5    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 90.6                | 65.8 | 121  |
| EP132: 2-Methylnaphthalene  | 91-57-6    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 75.0                | 67.7 | 112  |
| EP132: 7,12-Dimethylbenz(a)anthracene                             | 57-97-6    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 104                 | 11.6 | 146  |
| EP132: Acenaphthene   | 83-32-9    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 77.8                | 73.2 | 111  |
| EP132: Acenaphthylene   | 208-96-8   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 79.8                | 72.4 | 112  |
| EP132: Anthracene   | 120-12-7   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 83.1                | 73.4 | 113  |
| EP132: Benz(a)anthracene  | 56-55-3    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 88.0                | 73.6 | 114  |
| EP132: Benzo(a)pyrene   | 50-32-8    | 0.05 | µg/L | <0.05             | 2 µg/L                                | 87.1                | 75.2 | 117  |
| EP132: Benzo(b)fluoranthene                                       | 205-99-2   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 90.1                | 71.4 | 119  |
| EP132: Benzo(e)pyrene   | 192-97-2   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 85.3                | 75.3 | 118  |
| EP132: Benzo(g,h,i)perylene                                       | 191-24-2   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 87.2                | 66.6 | 121  |
| EP132: Benzo(k)fluoranthene                                       | 207-08-9   | 0.10 | µg/L | <0.1              | 2 µg/L                                | # 70.4              | 74.8 | 118  |
| EP132: Chrysene   | 218-01-9   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 85.6                | 69.6 | 120  |
| EP132: Coronene   | 191-07-1   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 86.2                | 47.4 | 131  |
| EP132: Dibenzo(a,h)anthracene                                     | 53-70-3    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 85.5                | 71.5 | 117  |
| EP132: Fluoranthene   | 206-44-0   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 88.2                | 74.8 | 117  |
| EP132: Fluorene   | 86-73-7    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 79.7                | 72.9 | 114  |
| EP132: Indeno(1,2,3-cd)pyrene                                     | 193-39-5   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 85.3                | 67.8 | 119  |
| EP132: N-2-Fluorenyl Acetamide                                    | 53-96-3    | 0.10 | µg/L | <0.1              | 20 µg/L                               | 67.9                | 53.6 | 131  |
| EP132: Naphthalene  | 91-20-3    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 76.7                | 68.3 | 116  |
| EP132: Perylene   | 198-55-0   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 88.0                | 68   | 122  |
| EP132: Phenanthrene   | 85-01-8    | 0.10 | µg/L | <0.1              | 2 µg/L                                | 84.5                | 74.8 | 112  |
| EP132: Pyrene   | 129-00-0   | 0.10 | µg/L | <0.1              | 2 µg/L                                | 87.0                | 75.1 | 117  |