MTR Corporation Limited

HONG KONG SECTION OF GUANGZHOU – SHENZHEN – HONG KONG EXPRESS RAIL LINK

(No. EP-349/2009/E)

Supplementary Contamination Assessment Report and Remediation Action Plan for Shek Kong Stabling Sidings (SSS) Works Area I (Revision C)

Verified by: 

Position: Independent Environmental Checker

Date: 7 March 2012

MTR Corporation Limited

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REPORT

Maeda-China State Joint Venture

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February 2012

Environmental Resources Management
21/F Lincoln House
979 King's Road
Taikoo Place
Island East, Hong Kong
Telephone: (852) 2271 3000
Facsimile: (852) 2723 5660
E-mail: post.hk@erm.com
http://www.erm.com

REPORT

Maeda-China State Joint Venture

Supplementary Contamination Assessment Report and Remediation Action Plan for Shek Kong Stabling Sidings (SSS) Works Area I (Revision C)

February 2012

For and on behalf of
ERM-Hong Kong, Limited

Approved by: Dr. Robin Kennish

Signed: 

Position: Partner

Date: 28 February 2012

Reference 0125309

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1 INTRODUCTION

1.1 BACKGROUND FOR LAND CONTAMINATION ASSESSMENT OF XRL

The Guangzhou-Shenzhen-Hong Kong Express Rail Link (XRL) is an express rail link connecting Hong Kong, Shenzhen and Guangzhou. The terminal of the XRL will be West Kowloon in Hong Kong and Shibi in Guangzhou, with Futian and Longhua in Shenzhen and Humen in Dongguan as intermediate stations. The Hong Kong section of the XRL project will comprise of a 26 km long underground rail line on a dedicated track from the proposed West Kowloon terminus to the border at Huanggang, where it will connect with the XRL Mainland section (the Project).

The Project is a Designated Project under the *Environmental Impact Assessment Ordinance* (*EIAO*). An Environmental Impact Assessment (EIA) for the XRL Hong Kong section was conducted and approved under the EIAO on 28 September 2009 (Register No. AEIAR - 143/2009).

During the EIA stage, a Land Contamination Assessment (LCA) was conducted to assess the presence and extent of land contamination associated with the historical and current operations along the proposed alignment. A Contamination Assessment Plan, attached as Appendix 9.1 of the EIA Report, has been approved by EPD (hereinafter refer as 'Approved CAP'). However, access to some Works Areas along the proposed alignment was restricted at the time of EIA study and therefore further LCA is needed after land resumption and prior to the commencement of construction works. Intrusive site investigation works including soil and groundwater sampling and testing have been completed for accessible Works Areas during the EIA stage. A Contamination Assessment Report/ Remediation Action Plan (hereinafter refer as 'Approved CAR/RAP'), attached as Appendix 9.2 of the EIA Report, has also been approved by EPD.

An Environmental Permit (EP-349/2009) of the Project was granted on 16 October 2009 and subsequently varied by the Director of Environmental Protection (DEP) with the latest Environmental Permit (EP349/2009/E) on 3 February 2012 . In accordance with Condition 2.21 of the EP, the Permit Holder shall carry out further LCA in accordance with the EIA Report and Approved CAP. Further site appraisal and Stage 2 Site Investigation (SI) shall be carried out when individual site access is granted to ascertain contaminating sources and hotspots of contamination. The site appraisal and Stage 2 SI results shall be submitted as a Revised Contamination Assessment Plan (hereinafter refer as 'Revised CAP') and a Supplementary Contamination Assessment Report (hereinafter refer as 'Supplementary CAR') respectively for EPD approval.

1.2 BACKGROUND TO THIS SUPPLEMENTARY CAR

Construction works of the XRL within the Shek Kong Stabling Siding (SSS) Works Area are undertaken by two contracts, namely Express Rail Link Contract 823a – Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823a) and Express Rail Link Contract 823b – Shek Kong Stabling Sidings and Emergency Rescue Siding (XRL 823b). Maeda-China State Joint Venture (MCJV) has been awarded as the main contractor of XRL 823a by MTR Corporation Limited (MTRC) on July 2010.

Owing to the land resumption progress and construction programme, the SSS Works Area was sub-divided into three Works Areas that two of these were found within the project boundary of the XRL 823a contract, namely Works Area I and Works Area II. Based on the above mentioned EIA and EP requirements, MCJV has commissioned ERM-Hong Kong, Limited (ERM) to undertake further LCA for Works Area I, covering Sites M, N, O, P, Q and R identified in the Approved CAP. *Figure 1.2, Annex A* shows the locations of these six Sites. Site inspection was carried out after individual site access was granted to ascertain contamination sources and hotspots of contamination. Revised CAP for Sites M, N, O, P, Q and R was approved by EPD on 11th August 2011.

Intrusive SI works were for Works Area I were completed in accordance with the Revised CAP. This Supplementary CAR has been prepared based on the SI results. As soil contamination was already identified at Site Q during the Stage 1 SI, a Supplementary Remediation Action Plan(s) (Supplementary RAP) is also prepared to EPD for approval.

2 SUMMARY OF THE REVISED CAP

2.1 STAGE 1 SITE INVESTIGATION PLAN

The Approved CAP presented the site appraisal findings during the EIA stage. SI Works of a total nine hotspots sampling locations at part of Site M (M-01 to M-04) and Q (Q-01 to Q-05) were completed during the EIA stage.

2.2 STAGE 2 SITE INVESTIGATION PLAN

The approved Revised CAP presented the site appraisal findings obtained in the Approved CAP and after land resumption at Sites M, N, O, P, Q, and R.

Update of site conditions have been made based on the review of any major changes in site settings from that observed and reported in the Approved CAP, particularly for Sites N and O where site access was not feasible during the EIA stage.

In the Approved CAP during the EIA stage, Site N was identified as suspected vehicle repair/ dismantling workshop and Site O was identified as suspected excavator parking area with some maintenance and refuelling activities based on the observation from surroundings. However, in accordance to the site appraisal results in the approved Revised CAP, Site N should be divided into sub-Sites N1, N2, N3 and N4 based on different site ownerships, landuses and site activities. As a result, Sites N1 and N3 were identified as vehicle parking areas with repairing activities and Site N4 was identified as construction material storage area. Site N2 was identified as village house and pigeon nursery (residential and agricultural land uses) and therefore no further site investigation was proposed for the Site N2 in the approved Revised CAP. Site O was found to be a vacant land with potential contaminating industrial activities.

According to the approved Revised CAP, a total of 20 hotspot sampling locations and 10 supplementary sampling locations were proposed at Sites M (M-05 to M-07), N (N1, N3 and N4), O, P, Q and R.

2.3 SUMMARY OF THE SITE INVESTIGATION PLAN

Table 2.1 summarises the approximate area and proposed sampling locations of each Site during both Stage 1 and Stage 2 SI. *Table 2.2* provides information on the coordinates of the approved sampling locations, the rationale for the selected sampling locations, and parameter to be analysed. *Figure 2.1a-c, Annex A*, shows the locations of these sampling locations.

Table 2.1 Summary of the Approved Site Investigation Plan

Site ID	Potential Contaminating Landuse	Approximate Area of the Site (m^2) #	Completed Sampling Locations during Stage 1 SI	Proposed Sampling Locations for Stage 2 SI
M	Vehicle parking area	1,000	4	3
N1	Vehicle parking with repairing activities	500	0	2
N2	Village house and pigeon nursery house	1,650	0	-
N3	Vehicle parking with repairing activities	1,850	0	6
N4	Construction material storage area	500	0	1
O	Open concrete paved area	300	0	2
P	Abandoned factory	1,500	0	10
Q	Parking area with minor vehicle repair / maintenance activities	2,000	5	2
R	Vehicle repairs workshop	400	0	4
Total			9	30

Note:

The areas of contaminating industrial activities were based on approved Revised CAP.

Table 2.2 Approved Sampling and Analysis Plan for Sites M, N, O, P, Q and R

Sampling Location ID	Proposed Coordinates	Hotspots Identified or Supplementary Locations	Soil		Groundwater	
			Sample Depths (m below base of concrete, m bbc)	Parameters to be Analysed (c), (d), (e),	Sample Depths (m)	Parameters to be Analysed (c), (d), (f),
M-01 (a)	E 826718.54 N 833696.62	Aboveground Storage Tank (AST)	0.5, 1.5, 3.0, 4.5, 6.0	Cadmium, Chromium III, Chromium VI, Copper, Mercury, Nickel, Lead, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs, Cyanide	At static groundwater level, if encountered.	Mercury, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs
M-02 (a)	E 826735.99 N 833694.01	AST				
M-03 (a)	E 826726.68 N 833713.82	AST				
M-04 (a)	E 826739.09 N 833715.61	AST				
M-05	E 826739.464 N 833702.205	Supplementary				
M-06	E 826718.451 N 833702.516	Supplementary				
M-07	E 826729.061 N 833702.516	Supplementary				
N1-01	E 826609.655 N 833862.621	Vehicle repair workshop/area	0.5, 1.5, 3.0, 4.5, 6.0	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level, if encountered.	Petroleum Carbon Ranges, VOCs, SVOCs
N1-02	E 826625.412 N 833871.156	Vehicle repair workshop/area				
N3-01	E 826617.096 N 833829.138	Vehicle repair workshop/area				
N3-02	E 826634.603 N 833821.697	Vehicle repair workshop/area				
N3-03	E 826637.504 N 833804.024	Vehicle repair workshop/area				
N3-04	E 826654.375 N 833817.198	Vehicle repair workshop/area				
N3-05	E 826657.580 N 833803.333	Vehicle repair workshop/area				
N3-06	E 826647.675 N 833792.747	Vehicle repair workshop/area				
N4-01	E 826619.284 N 833806.378	Supplementary				
O-01	E 826578.901 N 833865.860	Supplementary	0.5, 1.5, 3.0, 4.5, 6.0	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level, if encountered.	Petroleum Carbon Ranges, VOCs, SVOCs
O-02	E 826560.617 N 833885.617	Supplementary				
P-01	E 826685.371 N 833701.728	Parking area	0.5, 1.5, 3.0, 4.5, 6.0 (for boreholes) 0.5, 1.5, 3.0 (for trial pits)	Cadmium, Chromium III, Chromium VI, Copper, Mercury, Nickel, Lead, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs, Cyanide	For boreholes, at static groundwater level, if encountered. For trial pits, upon encountering of groundwater.	Mercury, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs
P-02	E 826692.860 N 833717.105	Parking area				
P-03 (b)	E 826686.700 N 833727.918	Storage area (oil drums)				
P-04 (b)	E 826683.820 N 833714.535	Storage area (oil drums)				
P-05	E 826674.868 N 833740.503	Storage area (oil drums)				
P-06	E 826664.986 N 833734.077	Storage area (oil drums)				
P-07 (b)	E 826667.113 N 833707.001	Storage area (oil drums)				

Sampling Location ID	Proposed Coordinates	Hotspots Identified or Supplementary Locations	Soil		Groundwater	
			Sample Depths (m below base of concrete, m bbc)	Parameters to be Analysed (c), (d), (e),	Sample Depths (m)	Parameters to be Analysed (c), (d), (f),
P-08	E 826701.238 N 833721.428	AST				
P-09	E 826700.029 N 833718.929	AST				
P-10	E 826698.819 N 833716.430	AST				
Q-01 (a)	E 826683.81 N 833756.37	Scattered vehicle repair area	0.5, 1.5, 3.0, 4.5, 6.0	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level, if encountered.	Petroleum Carbon Ranges, VOCs, SVOCs
Q-02 (a)	E 826688.32 N 833772.40	Scattered vehicle repair area				
Q-03 (a)	E 826674.48 N 833778.64	Scattered vehicle repair area				
Q-04 (a)	E 826664.53 N 833765.61	Water container disposal area				
Q-05 (a)	E 826654.64 N 833769.27	Water container disposal area				
Q-06	E 826701.031 N 833748.541	Supplementary				
Q-07	E 826681.372 N 833792.813	Supplementary				
R-01	E 826588.824 N 833845.817	Waste container & storage area	0.5, 1.5, 3.0, 4.5, 6.0	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	At static groundwater level, if encountered.	Petroleum Carbon Ranges, VOCs, SVOCs
R-02	E 826602.217 N 833832.685	Vehicle repairs area				
R-03	E 826596.965 N 833837.098	Supplementary				
R-04	E 826596.807 N 833852.277	Supplementary				

Notes:

(a) Sampling details proposed in the Approved CAP during EIA Stage. Proposed coordinates of these sampling locations were not provided in the Approved CAP and therefore as-built coordinates in the Approved CAR/RAP were used as reference.

(b) Sampling depths will be 3.0m bbc for P-03, P-04 and P-07 as these sampling points are located inside the two-storey height abandoned factory, resulting in headroom constraints.

(c) Petroleum Carbon Ranges: C6 to C8, C9 to C16, and C17 to C35.

(d) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total).

(e) SVOCs for soil: Acenaphthene, Acenphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, bis-(2-Ethylhexyl)phthalate, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Hexachlorobenzene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, and Pyrene.

(f) SVOCs for groundwater: Acenaphthene, Acenphthylene, Anthracene, Benzo(b)fluoranthene, Chrysene, Fluoranthene, Fluorene, Hexachlorobenzene, Naphthalene, Phenanthrene and Pyrene.

3.1 STAGE 1 INTRUSIVE SITE INVESTIGATION

Stage 1 Intrusive SI works for part of Sites M and Q were carried out by Geotechnics & Concrete Engineering (HK) Ltd (GCE) from 12th to 18th February 2009, and 17th to 24th March 2009. The work was conducted during the EIA stage and the results have been presented in the Approved CAR/RAP during the EIA Stage.

A total of nine boreholes were constructed at the sampling locations in according with the Approved CAP. No groundwater was encountered at all these boreholes. *Annex B* presents the borehole logging reports providing information on the soil strata at the sampling locations. *Table 3.1* presents the as-built coordinates of the sampling locations, sampling depths and the number of samples collected during the Stage 1 SI work.

3.2 STAGE 2 INTRUSIVE SITE INVESTIGATION

Stage 2 Intrusive SI works for the Sites M, N (N1, N3 and N4), O, P, Q and R were carried out by Shun Bong Drilling Engineering (Hong Kong) Limited (Shun Bong). All site works were supervised by an ERM land contamination specialist.

A total of 27 boreholes and three trial pits were constructed at the sampling locations in according with the approved Revised CAP. Groundwater was encountered in 24 boreholes. These 24 boreholes were converted to groundwater monitoring wells and one groundwater sample per location was collected after the groundwater levels had been stabilized. *Annex B* presents the borehole/ trial pit logging reports providing information on the soil strata at the sampling locations and the selected photographs during intrusive SI.

3.2.1 *Soil Sample Collection*

Utility scanning was performed at all trial pit/ borehole locations prior to ground disturbance to ensure clearance of underground structures.

Borehole Drilling

For each of the 27 boring locations, inspection pit was excavated by hand down to 1.5m below base of concrete (m bbc) at each of the locations before the drilling of the boreholes in order to further confirm underground utility clearance. In accordance to the approved Revised CAP, boreholes were advanced by means of dry rotary drilling methods as far as practicable. Soil samples were taken at 0.5m, 1.5m, 3 – 3.45m, 4.5 – 4.95m, and 6 – 6.45m bbc. Disturbed samples were collected at the depths of 0.5m and 1.5m bgl. Undisturbed samples were collected at 3.0 – 3.45m, 4.5 – 4.95m, and 6 – 6.45m bbc by using U76 samplers.

It should be noted that for several boring locations, soil type of mainly gravel to cobble of rock fragments was encountered at various depths. As a result, these samples were not suitable for laboratory analysis and the chemical analyses of those samples were not carried out. *Table 3.1* presents the as-built coordinates of the sampling locations, sampling depths and the number of samples collected and any deviations of the SI plan from the approved Revised CAP.

During drilling, the presence of volatile organic compounds (VOCs) was tested for using a Photo-ionisation Detector (PID) provided and calibrated by an accredited HOKLAS laboratory. If any suspected materials are encountered during the borehole drilling, sampling and testing for parameters recommended in the CAP should be undertaken to verify any contamination. No discolouration or odour of the soil samples was observed and no significant detection of VOCs from the PID readings during the intrusive SI.

Trial Pit Excavation

For locations P-03, P-04 and P-07, as mentioned in the approved Revised CAP, headroom constrains were encountered and borehole drilling at those locations were not applicable. Trial pits were therefore excavated to facilitate the soil sampling as an alternative to borehole drilling. Trial pits of dimensions 1.5m in width and 3.0m in depth were excavated by manual digging in a series of shallow cuts. Disturbed soil samples were collected at the depth of 0.5m, 1.5m and 3.0 m bbc at each trial pit.

All soil samples were placed into laboratory supplied pre-cleaned glass jars and labeled with a permanent waterproof marker. *Table 3.1b* presents the as-built coordinates of the sampling locations, sampling depths and the number of samples collected.

During soil excavation, the presence of volatile organic compounds (VOCs) was tested for using a Photo-ionisation Detector (PID) provided and calibrated by an accredited HOKLAS laboratory. During the Stage 2 intrusive SI works, minor discolouration of one of the soil samples was identified. The soil within the P-03 from 2.7m bbc to the bottom of the pit (3.0m bbc) was observed to be stained and oily during the trial pit excavation Hydrocarbon odour was detected from the soil sample collected at the depth of 3.0m bbc at P-03.

No groundwater was encountered at the three trial pit locations. The excavated arisings were positioned away from the immediate edge of the trial pit to avoid collapse. Upon completion, trial pits were backfilled immediately in reverse order to which they were excavated.

3.2.2 Groundwater Sample Collection

One groundwater sample was collected from each of the 24 boreholes after the groundwater monitoring well had been developed and water levels had been stabilized. *Annex C* illustrates the groundwater monitoring well of each borehole location. The groundwater monitoring wells were developed by bailing at least five times the well liquid volumes, in order to remove standing

water. The bailed wells were left standing for at least 24 hours to allow for replenishment. During the intrusive SI, no evidence of NAPL in groundwater (visual or by olfactory) was apparent. Static Groundwater Levels measured are shown in *Table 3.1.*

All groundwater samples collected from the groundwater monitoring wells were collected using disposable bailers (one per location). The samples were placed directly into sampling bottles supplied by the accredited HOKLAS laboratory.

Table 3.1 Summary of Both Stage 1 and Stage 2 Intrusive SI works conducted at Sites M, N (N1, N3 and N4), O, P, Q and R

Borehole/ Trial Pit ID	As-built Coordinates	Sampling Depth (m bgl)	Constructed Borehole/Trial Pit Depth (m bgl)	Deviation From the Approved CAP/ Approved Revised CAP	Number of Soil Samples Collected for Laboratory Analysis	Number of Groundwater Samples Collected	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
M-01 (a)	E 826718.54 N 833696.62	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9	6.90	Nil	6 (5+1) (c)	0 (d)	13.70	-
M-02 (a)	E 826735.99 N 833694.01	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9	6.90	Nil	6 (5+1) (c)	0 (d)	13.78	-
M-03 (a)	E 826726.68 N 833713.82	1-1.9, 2-2.9, 3-3.9, 4.5-5.4, 6-6.9,	6.90	Bitumen encountered, soil sample could not be collected exactly at designated depths.	6 (5+1) (c)	0 (d)	13.63	-
M-04 (a)	E 826739.09 N 833715.61	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9	6.90	Nil	6 (5+1) (c)	0 (d)	13.74	-
M-05	E 826739.321 N 833702.421	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	6 (5+1) (c)	0 (d)	13.780	-
M-06	E 826718.556 N 833702.423	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	0 (d)	13.700	-
M-07	E 826729.100 N 833702.433	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	0 (d)	13.750	-
N1-01	E 826609.623 N 833862.451	0.5, 1.5, 3-3.45	6.10	Gravels and cobbles of rock fragments were encountered at 3.8-6.1m blg, chemical analysis of samples at those depths were not performed.	3	1	10.650	6.96
N1-02	E 826625.578 N 833871.083	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravels and cobbles of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of samples at 6.0-6.45m bgl was not performed.	4	1	10.720	7.35

Borehole/ Trial Pit ID	As-built Coordinates	Sampling Depth (m bgl)	Constructed Borehole/Trial Pit Depth (m bgl)	Deviation From the Approved CAP/ Approved Revised CAP	Number of Soil Samples Collected for Laboratory Analysis	Number of Groundwater Samples Collected	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
N3-01	E 826617.823 N 833829.412	0.5, 1.5, 3-3.45, 6-6.45	6.45	Gravels and cobbles of rock fragments were encountered at 3.90-4.95m blg, chemical analysis of sample at 4.0-4.45m bgl was not performed.	5 (4+1) (c)	1	10.470	6.07
N3-02	E 826634.552 N 833821.893	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravel of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	2 (1+1) (c)	10.990	7.30
N3-03	E 826637.461 N 833804.102	0.5, 1.5, 4.5-4.95	6.45	Gravel to cobble of rock fragments were encountered at 1.5m-4.5m and 5.2m-6mm blg, chemical analysis of at these depths were not performed.	4 (3+1) (c)	1	10.540	6.00
N3-04	E 826654.442 N 833817.305	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravels/rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.740	7.58
N3-05	E 826657.641 N 833803.032	0.5, 1.5, 3-3.45, 6-6.45	6.45	Gravels and cobbles of rock fragments were encountered at 3.80-4.95m blg, chemical analysis of sample at 4.0-4.45m bgl was not performed.	4	1	10.590	6.64
N3-06	E 826647.712 N 833792.633	0.5, 1.5, 3-3.45, 4-4.45	6.45	Gravels of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.650	6.12
N4-01	E 826619.241 N 833806.421	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravel to cobble of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.790	7.01

Borehole/ Trial Pit ID	As-built Coordinates	Sampling Depth (m bgl)	Constructed Borehole/Trial Pit Depth (m bgl)	Deviation From the Approved CAP/ Approved Revised CAP	Number of Soil Samples Collected for Laboratory Analysis	Number of Groundwater Samples Collected	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
O-01	E 826578.812 N 833865.620	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravel to cobble of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.530	6.84
O-02	E 826560.335 N 833885.650	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	1	10.890	7.14
P-01	E 826685.421 N 833701.633	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	1	10.790	6.97
P-02	E 826692.623 N 833717.247	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	1	10.900	7.30
P-03 (b)	E 826686.683 N 833727.823	0.5, 1.5, 3.0	3.00	Trial pit	3	0 (d)	11.140	-
P-04 (b)	E 826683.660 N 833714.421	0.5, 1.5, 3.0	3.00	Trial pit	3	0 (d)	10.850	-
P-05	E 826674.726 N 833740.401	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	1	11.120	7.22
P-06	E 826664.643 N 833734.321	0.5, 1.5, 3-3.45, 4.5-4.95	6.20	Gravels and cobbles of rock fragments were encountered at 6.0-6.20m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.900	6.90
P-07 (b)	E 826667.228 N 833707.152	0.5, 1.5, 3.0	3.00	Trial pit	3	0 (d)	10.880	-
P-08	E 826693.139 N 833725.125	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45	6.50	Nil	6 (5+1) (c)	1	10.990	7.26

Borehole/ Trial Pit ID	As-built Coordinates	Sampling Depth (m bgl)	Constructed Borehole/Trial Pit Depth (m bgl)	Deviation From the Approved CAP/ Approved Revised CAP	Number of Soil Samples Collected for Laboratory Analysis	Number of Groundwater Samples Collected	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
P-09	E 826694.642 N 833721.611	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45	6.50	Nil	5	1	10.820	7.18
P-10	E 826695.258 N833719.306	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45	6.50	Nil	5	1	10.850	7.09
Q-01[a]	E 826683.81 N 833756.37	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.3	6.30	High content of gravels/sand encountered, soil sample could not be collected exactly at designated depths.	5	0 [d]	11.63	-
Q-02[a]	E 826688.32 N 833772.40	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.2	6.30	High content of gravels/sand encountered, soil sample could not be collected exactly at designated depths.	5	0 [d]	11.77	-
Q-03[a]	E 826674.48 N 833778.64	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.4, 6-6.9	6.90	High content of gravels/sand encountered, soil sample could not be collected exactly at designated depths.	5	0 [d]	11.77	-
Q-04[a]	E 826664.53 N 833765.61	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.75, 6.75-7.2	7.20	High content of gravels/sand encountered, soil sample could not be collected exactly at designated depths.	6	0 [d]	11.80	-
Q-05[a]	E 826654.64 N 833769.27	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.75	7.20	High content of gravels/sand encountered, soil sample could not be collected exactly at designated depths.	5	0 [d]	11.70	-
Q-06	E 826701.213 N 833748.153	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	6 (5+1) [c]	1	11.650	7.95
Q-07	E 826683.812 N 833790.643	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravels of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	5 (4+1) [c]	1	11.870	8.15

Borehole/ Trial Pit ID	As-built Coordinates	Sampling Depth (m bgl)	Constructed Borehole/Trial Pit Depth (m bgl)	Deviation From the Approved CAP/ Approved Revised CAP	Number of Soil Samples Collected for Laboratory Analysis	Number of Groundwater Samples Collected	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
R-01	E 826588.633 N 833845.875	0.5, 1.5, 3-3.45	6.45	Gravel and cobble of rock fragments were encountered at 4.5-6.45m blg, chemical analysis of samples at those depths were not performed.	3	1	10.650	6.85
R-02	E 826602.236 N 833832.528	0.5, 1.5, 3-3.45, 4.5-4.95, 6-6.45	6.45	Nil	5	2 (1+1) (c)	10.620	6.76
R-03	E 826596.703 N 833837.201	0.5, 1.5, 3-3.45, 4.5-4.95	6.45	Gravels of rock fragments were encountered at 6.0-6.45m blg, chemical analysis of sample at 6.0-6.45m bgl was not performed.	4	1	10.630	6.69
R-04	E 826596.771 N 833852.303	0.5, 1.5, 3-3.45, 6-6.45	6.45	Gravels and cobbles of rock fragments were encountered at 3.5-4.95m blg, chemical analysis of sample at 4.0-4.45m bgl was not performed.	4	1	10.460	6.79
Stage 1 Total					50 (46+4)	0		
Stage 2 Total					132 (126+6)	26 (24+2)		
Grand Total					182 (172+10)	26 (24+2)		

Notes:
(a) Borehole completed during Stage 1 SI by GCE. Information of these boreholes were retrieved from the Approved CAR/RAP.
(b) For Sites P-03, P-04 and P-07, headroom constrains were encountered and borehole drilling at those locations was not possible. Trial pits were excavated.
(c) Soil duplicate sample or groundwater duplicate sample was collected at these boreholes.
(d) No groundwater was encountered.

3.2.3 Decontamination Procedures

Sampling equipment used during the course of the intrusive SI was thoroughly decontaminated, to minimize the potential for cross-contamination.

The equipment used for sample collection was not the same as that used to advance the borehole.

During sampling and decontamination activities, disposable latex/nitrile gloves were worn to prevent transfer of contaminants from other sources. Clean latex gloves were changed before each new sample was collected. Whenever possible, a new set of sampling equipment was used for each sampling event. When this was not possible, the equipment was cleaned with Decon 90 detergent between each sampling event.

All equipment that came into contact with the subsurface soil was decontaminated using Decon 90 detergent and water, with a distilled water rinse to clean all smaller pieces of equipment, in particular those used to sample materials such as sampling cores, hand excavation and grab samples. This cleaning procedure was repeated after use at each borehole to avoid potential cross contamination between boreholes, and during sampling, to ensure that any contamination from the surface of the site does not affect deeper substrata or the groundwater.

Larger equipment and sampling materials were steam cleaned using mains water, where possible, or at a minimum pressure jet washed with tap water.

3.2.4 Quality Control and Quality Assurance (QA/QC)

To ensure the quality control and quality assurance of the sampling procedures and laboratory analysis, different QA/QC measures have been taken in this Project.

Laboratory QA/QC Procedures

The following laboratory QA/QC programs were implemented in order to ensure that the data obtained are accurate and representative of actual soil and groundwater conditions:

- Field duplicate sample;
- Field blank;
- Equipment blank; and
- Trip blank.

Analysis of soil and groundwater samples was carried out by ALS Technichem Limited (ALS) which is a HOKLAS accredited analytical laboratory.

Duplicate Sample

A total of 196 samples (172 soil and 24 groundwater) were collected from the boreholes and trial pits in Stage 1 and Stage 2 SI. According to the approved Revised CAP, one duplicate sample is required for at least every 20 samples (soil and groundwater) collected. As a result, 12 duplicate samples were collected during the two SI stages.

Ten soil duplicate samples were collected from M-01 (0.5-1.4m bbc), M-02 (1.5-2.4m bbc), M-03 (3-3.9m bbc), M-04 (0.5-1.4m bbc), M-05 (3 – 3.45m bbc), N3-01 (6 – 6.45m bbc), N3-03 (0.5m bbc), P-08 (3.0 – 3.45m bbc), Q-06 (4.5 – 4.95m bbc) and Q-07 (3 – 3.45m bbc), and two groundwater duplicate samples were collected from monitoring well locations R-02 and N3-02.

The duplicate samples were collected on a random basis and submitted to the HOKLAS accredited laboratory for analysis of full suite of parameters as the original sample.

Field Blank Samples

One field blank sample was taken for every 20 samples collected during the land contamination investigation as per the approved Revised CAP. A total of eight field blank samples were collected from the Sites.

Equipment Blank Sample

One equipment blank sample was taken for every 20 samples collected after decontamination procedures had been followed. A total of eight equipment blank samples were collected from the Sites.

Trip Blank

A total of 18 trip blanks (one trip blank per trip) were submitted and analysed for VOCs to account for any potential cross-contamination as part of QA/QC.

3.2.5 Handling of Samples

All samples were transported under appropriate chain-of-custody documentation, in clean coolers with ice packs at a temperature of approximately +4°C. Samples were collected by the accredited HOKLAS laboratory on a daily basis or as soon as possible after collection, noting the recommended maximum holding times. Analysis of soil and groundwater samples was carried out by ALS Technichem Limited (ALS) which is a HOKLAS accredited analytical laboratory.

4.1 ASSESSMENT CRITERIA FOR SOIL AND GROUNDWATER CONTAMINATION

The *RBRGs Guidance Manual* and the *RBRGs Guidance Note* were issued by EPD on 15 August 2007 and were effective immediately onwards. The RBRGs were developed for four different post-restoration land-use scenarios namely: urban residential, rural residential, industrial and public parks.

Based on the approved Revised CAP, it has found that the Sites were mainly used as vehicle parking and repairing, construction material storage and abandoned factory and will become railway stabling sidings after the completion of the Project. *Table 4.1* presents the current and future land use classifications of the Sites. Future land use of the Sites M, N (N1, N2 and N4), O, P, Q and R was classified as Industrial Land Use according to the *RBRGs Guidance Note*.

Table 4.1 Current and Future Land Uses of the Sites

Site ID	Current Land Use	Corresponding Current RBRGs Land Use	Future Land Use (Operation Phase)	Corresponding Future RBRGs Land Use Reference
Site M	Open area	Industrial	Railway Facility	Industrial
Site N1	Vehicle parking and repairing	Industrial	Railway Facility	Industrial
Site N2	Dwellings and pigeon farming	Rural Residential	Railway Facility	Industrial
Site N3	Vehicle parking and repairing	Industrial	Railway Facility	Industrial
Site N4	Construction material storage	Industrial	Railway Facility	Industrial
Site O	Vehicle parking and repairing	Industrial	Railway Facility	Industrial
Site P	Abandoned factory	Industrial	Railway Facility	Industrial
Site Q	Vehicle parking and repairing	Industrial	Railway Facility	Industrial
Site R	Vehicle parking and repairing	Industrial	Railway Facility	Industrial

RBRGs for Soil and Groundwater, used in conjunction with Soil Saturation Limits (C_{sat}) and Solubility Limits, set the remediation goals for soil and groundwater respectively. *Annex D* presents the *Tables 2.1* and *2.2* of the *RBRGs Guidance Manual* which list the RBRGs for Soil and Groundwater. Detected concentrations of Chemicals of Concern (CoCs) in soil and/or groundwater at the Sites were compared to the RBRGs for Soil and Groundwater for Industrial Land Use, C_{sat} and Solubility Limits.

5 ANALYTICAL RESULTS AND RESULTS INTERPRETATION

5.1 SOIL ANALYTICAL RESULTS

A total of 50 soil samples (including four soil duplicates) were collected from nine boreholes for laboratory analysis during Stage 1 SI, while 132 soil samples (including six duplicates) were collected from 27 boreholes and 3 trial pits for laboratory analysis during Stage 2 SI. The summary of laboratory analytical results is attached in *Annex E* and summarised in *Table 5.1,* as required by the *RBRGs Guidance Manual*. Relevant laboratory analytical reports extracted from the Approved CAR/RAP and those from Stage 2 SI are included in *Annex G.*

5.1.1 *Comparison of Soil Analysis Results against RBRGs and C_{sat}*

The analytical results of Stage 1 intrusive SI works indicate that the concentrations of CoCs at all soil samples collected comply with the RBRGs for Soil for Industrial Land Use and the C_{sat}, except for SVOCs concentrations. Concentration of bis-(2-Ethylhexyl)phthalate (DEHP) at 2,540 and 356 $mgkg^{-1}$ were detected at soil samples collected from Q-04 1.5-2.4m bbc and Q-05 4.95-5.85m bbc, respectively. Relevant pages of findings of Site Q in the Approved CAR/RAP are provided as *Annex F,* Both concentrations exceeded the RBRGs for Soil for Industrial Land Use of 91.8 $mgkg^{-1}$ for DEHP. However, with reference to the Guidance Manual, C_{sat} for DEHP is not available as this chemical is relatively immobile in nature that the potential occurrence of DEBP be present in the environmental as Non-aqueous Phase Liquid (NAPL) is considered to be unlikely.

The analytical results of Stage 2 intrusive SI works indicate that all detected concentrations of the CoCs in the soil samples collected from the Sites were below the RBRGs for Soil for Industrial Land Use and the C_{sat}. The results indicate that no significant contamination of the CoCs is present in the soil samples tested at the Sites.

Table 5.1 Soil Analytical Results Summary for Both Stage 1 and Stage 2 Site Investigation

Parameter	Frequency of Detection (x/y) [a]	Range of Detected Conc. (mg/kg)	Range of Method Reporting Limit (mg/kg)	Referenced Analytical Method	Relevant Land Use [b]	Lowest RBRGs (mg/kg) [b]	C_{sat} (mg/kg)	Maximum Concentration Exceeds	
								RBRGs	C_{sat}
Metals									
Cadmium	8/104	0.2-0.4	0.2	USEPA 6020	Industrial	653	N/A	None	None
Copper	172/172	2-118	1	USEPA 6020	Industrial	10,000	N/A	None	None
Lead	172/172	11-2160	1	USEPA 6020	Industrial	2,290	N/A	None	None
Nickel	101/104	1-9	1	USEPA 6020	Industrial	10,000	N/A	None	None
Zinc	172/172	17-656	1	USEPA 6020	Industrial	10,000	N/A	None	None
Mercury	0/104	BDL	0.2	USEPA 6020	Industrial	38.4	N/A	None	None
Chromium (III)	172/172	1-39	1	USEPA 6020	Industrial	10,000	N/A	None	None
Chromium (VI)	1/172	1	1	USEPA 6020	Industrial	1,960	N/A	None	None
Petroleum Carbon Ranges									
C_6-C_8	0/172	BDL	5	USEPA 8015	Industrial	10,000	1,000	None	None
C_9-C_{16}	3/172	365-2,890	200	USEPA 8015	Industrial	10,000	3,000	None	None
C_{17}-C_{35}	3/172	1,490-4,010	500	USEPA 8015	Industrial	10,000	5,000	None	None
VOC [C]									
Various	0/172	BDL	0.2 - 50	USEPA 8260	Industrial	Var	Var	None	None
SVOC[d]									
Various	9/172	0.572-1.1	0.2 – 0.5	USEPA 8270	Industrial	Var	Var	None	None
Bis(2-ethylhexyl)phthalate	7/172	6.86-2,540	5	USEPA8270	Industrial	91.8	N/A	Yes	None
PCBs									
PCBs	1/78	<0.5	0.1	USEPA 8070	Industrial	10,000	N/A	None	None
Other Inorganic Compounds									
Cyanide, free	0/83	BDL	1	Alpha 4500CD:C&E	Industrial	10,000	N/A	None	None

Notes:

Table based on Standard Form 3.2 of the *RBRGs Guidance Manual*

(a) x = number of samples above laboratory reporting limit, y = number of samples analysed

(b) RBRGs for Soil for the industrial land use was used for this Project

(c) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total)

(d) SVOCs: Acenaphthene, Acenphthylene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, bis-(2-Ethylhexyl)phthalate, Chrysene, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Hexachlorobenzene, Indeno(1,2,3-cd)pyrene, Naphthalene, Phenanthrene, Phenol, and Pyrene.

N/A - Not Applicable (no C_{sat} Limits were available for these parameters)

BRL - Below Detection Limit / Below Reporting Limit

Var. - Various RBRGs for Soil and C_{sat} for individual compound

5.2 *GROUNDWATER ANALYTICAL RESULTS*

No groundwater was encountered during the Stage I intrusive SI works.

During the Stage II intrusive SI works, Groundwater was encountered at 24 out of the 27 drillhole and three trial pit locations. Groundwater monitoring wells were installed at the 24 locations and one groundwater sample was collected from each well. No groundwater was encountered at trial pits (P-03, P-04 and P-07). During the intrusive SI, no evidence of NAPL in groundwater (visual or by olfactory) was apparent. In total, 26 water samples (including two groundwater duplicates) were collected from the Sites for the laboratory analysis. These results are presented in *Table 5.2 and Annex E*. Relevant laboratory analytical reports are included in *Annex G*.

5.2.1 *Comparison of Groundwater Analysis Results against RBRGs and Solubility Limits*

The groundwater analytical results were compared against the RBRGs for Groundwater for Industrial Land Use and Solubility Limits for the CoCs, as presented in *Table 5.2*. None of the detected concentrations were above the RBRGs for Groundwater for Industrial Land Use or Solubility Limits.

All Mercury, VOCs, SVOCs and Cyanide were found below the detection limits of reporting, which were below the RBRGs for Groundwater for Industrial Land Use and Solubility Limits. All Petroleum Carbon Ranges (C_6-C_{35}) concentrations were found below the RBRGs for Groundwater for Industrial Land Use and Solubility Limits.

Table 5.2 Groundwater Analytical Results Summary

Parameter	Frequency of Detection (x/y) [a]	Range of Detected Concentration (μg/L)	Range of Method Reporting Limit (μg/L)	Referenced Analytical Method	Relevant Land Use Category [b]	Lowest RBRGs (μg/L) [b]	Solubility Limit (μg/L)	Maximum Concentration Exceeds	
								RBRGs	Solubility
Metals									
Mercury	0/7	BDL	0.5	USEPA 6020	Industrial	6,790	N/A	None	None
Petroleum Carbon Ranges									
C_6-C_8	0/24	BDL	20	USEPA 8015	Industrial	1,150,000	5,230	None	None
C_9-C_{16}	0/24	BDL	500	USEPA 8015	Industrial	9,980,000	2,800	None	None
C_{17}-C_{35}	3/24	500 – 700	500	USEPA 8015	Industrial	178,000	2,800	None	None
VOC									
Various	0/24	BDL	5 – 50	USEPA 8260	Industrial	Var	Var	None	None
SVOCs									
Various	0/24	BDL	2 – 4	USEPA 8270	Industrial	Var	Var	None	None
PCBs									
PCBs	0/7	BDL	1	USEPA 8070	Industrial	5,110	31	None	None

Notes:

Table based on Standard Form 3.3 of the *RBRGs Guidance Manual*

(a) x = number of samples above laboratory reporting limit, y = number of samples analysed

(b) RBRGs for Groundwater for Industrial Land Use was used for this Project

(c) VOCs: Acetone, Benzene, Bromodichloromethane, 2- Butanone, Chloroform, Ethylbenzene, Methyl tert-Butyl Ether, Methylene Chloride, Styrene, Tetrachloroethene, Toluene, Trichloroethene, and Xylenes (Total)

(d) SVOCs: Acenaphthene, Acenphthylene, Anthracene, Benzo(b)fluoranthene, bis-(2-Ethylhexyl)phthalate, Dibenzo(a,h)anthracene, Fluoranthene, Fluorene, Hexachlorobenzene, Naphthalene, Phenanthrene, and Pyrene

BRL - Below Detection Limit / Below Reporting Value

Var. - Various RBRGs for Groundwater and Solubility Limits for individual compound

5.2.2 *Quality Control/Quality Assurance*

A QA/QC programme was incorporated into the land contamination investigation for the project. The program included collection and analysis of field QA/QC samples and laboratory internal QA/QC samples.

Field QA/QC

The field QA/QC samples included seven field duplicate sample, eight equipment blank samples, eight field blank samples and 15 trip blank samples.

The field duplicate samples were analysed for the same suite of parameters as the original samples. The relative percentage difference (RPD) was used to assess the sample collection and laboratory analysis reproducibility and precision. In accordance with the USEPA's guidance, RPDs were only calculated for the duplicate samples results that were higher than two times of the method detection limits. The USEPA acceptable limits for the RPDs are less than 50% for a soil sample and 30% for a groundwater sample.

The RPDs calculated for the soil duplicates collected were M01 (7-57%), M02 (13-37%), M03 (0-58%), M04 (9-68%), M-05 (0-22%), N3-01 (0-67%), N3-03 (0-34%), Q-06 (0-27%), Q-07 (0-11%). The RPDs calculated for groundwater duplicates were N302 (0%) and R-02 (15%). The calculations indicate that the RPD level is above the acceptable limit of 50% for four of the soil samples (M01, M03, M04 andN3-01) and within the acceptable limit of 30% for both groundwater samples. Nonetheless, as the detectable amounts were considerably small for the detected parameter. The 66% for N3-01 was contributed by the PRD of 4 $mgkg^{-1}$ and 8 $mgkg^{-1}$ in Trivalent Chromium detected in the soil and duplicate samples, the 57% for M01 was contributed by the PRD of 5 $mgkg^{-1}$ and 9 $mgkg^{-1}$ in Nickel detected, the 58% for M03 was contributed by 141 $mgkg^{-1}$ and 78 $mgkg^{-1}$ in Lead detected and the 68% for M04 was contributed by the PRD of 122 $mgkg^{-1}$ and 60 $mgkg^{-1}$ in zinc detected. Since no parameters have exceeded the RBRGs for Soil and C_{sat}, the soil results are considered suitable to use.

Throughout the sampling period, eight rinsate equipment blank samples were taken after decontamination procedures had been followed and no evidence of cross contamination was found.

Laboratory QA/QC Data

The laboratory QA/QC sample results, including method blank, single control spike, matrix spike, surrogate recoveries and other internal laboratory QA/QC, met their respective requirements. A copy of laboratory chemical testing reports is attached in *Annex G.*

6 REMEDIATION ACTION PLAN

6.1 INTRODUCTION

A RAP has been approved by EPD during the EIA stage to present possible remediation proposals and recommends appropriate remediation actions for potential contamination areas found along the XRL's Works Areas.

Based on the analytical results of soil presented in the Supplementary CAR (*refer to Sections 3 to 5*), concentrations of bis-(2-Ethylhexyl)phthalate (DEHP) at 2,540 and 356 $mgkg^{-1}$ of were detected at soil samples collected from Q-04 1.5-2.4m bbc and Q-05 4.95-5.85m bbc (Site Q), respectively. Both concentrations exceeded the RBRGs for Soil for Industrial Land Use of 91.8 $mgkg^{-1}$ for DEHP. Soil remediation, and thus this RAP, is needed to identify and confirm the appropriate remediation actions for these locations prior to construction works commencement at Site Q.

6.2 OBJECTIVE OF THE RAP

This RAP is developed in conjunction with the Supplementary CAR for EPD's approval. This RAP provides a summary of the site conditions, the contamination, and a proposal and commitment to provide remediation of contaminated soil at Site Q.

The objectives of the remediation action plan (RAP) are as follows:

- To propose remediation method(s) for the contaminated soil;
- To propose a mean to confirm the contamination extent and completed remediation of contaminated soil; and
- To provide guidelines regarding handling and/or disposal of contaminated soil.

6.3 PROPOSED REMEDIATION METHODS

6.3.1 Background and Selection Criteria

Potential soil remediation options applicable to the contaminated soil at Site Q were identified based on the following criteria:

- Degree and extent of the contamination;
- Nature of the contaminants;
- Soil characteristics;
- Anticipated future use of the site; and
- Time available for remediation.

Degree and Estimated Extent of Contamination

In an attempt to determine the area/volume of contaminated soil requiring remediation, two areas of 25m^2 (5m x 5m) contaminated zones centered at Q-04 and Q-05 are adopted as initial contaminated areas. The horizontal extent of contamination will be confirmed during the remediation through confirmatory sampling and testing at the boundaries of these contaminated zones (see details in *Section 6.3.1*). For vertical extent, the depth of contamination is assumed to be 0.5m above and below the particular depth of the specific samples with contamination identified, or to the other uncontaminated samples collected above and below the identified contamination.

Based on the above approach, the extent of soil contamination has been estimated as presented in *Table 6.1* and *Figure 6.1, Annex A*.

Table 6.1 Location, Depth and Estimated Quantity of Contaminated Soil

SSS Works Areas	Site ID	Sampling Location ID	Depth with Contaminated Soil Found (m bbc)	CoCs	Estimated Contamination Extent		
					Vertical (m bbc)	Horizontal (m^2)	Volume (m^3)
I	Q	Q-04	1.50 - 2.40 m	DEHP	1.40 – 2.90[(a)]	25	37.5
		Q-05	4.95 – 5.85m	DEHP	4.45 – 5.85[(b)]	25	35.0
Total estimated volume (m^3)							72.5

Notes:

(a) Soil sample at 0.50 - 1.40 m bbc indicated no exceedance of DEHP.

(b) Soil sample at 5.85 - 6.75 m bbc indicated no exceedance of DEHP.

(c) The above information is referenced from the Approved CAR/RAP of the EIA Report.

Nature of Contaminants

DEHP is an organic chemical with the formula $C_6H_4(CO_2C_8H_{17})_2$. It is a colourless liquid and is defined under the category of semi volatile compounds. The vapour pressure is 1.32 mm Hg at 200 °C (while vapour pressure of benzene is 100 mm Hg at 26.1 °C). DEHP is insoluble in water but soluble in mineral oil, hexane and most of the organic solvents. It is widely employed as plasticizer in manufacturing of polyvinyl chloride (PVC) composed articles and also used in hydraulic fluid, dielectric fluid in capacitors and solvent in light sticks. DEHP has a strong tendency to adsorb to soil and sediments and will not easily evaporate or leach into underground water.

Soil Characteristics

In accordance with the borehole log of Q-04 and Q-05, soil at Q-04 1.4-2.9m bbc was described as firm, reddish brown spotted white, sandy clayey silt with some angular fine to coarse gravel sized moderately decomposed tuff fragments. While soil at Q-05 4.45 - 5.85m bbc was described as soft to fine, light yellowish brown, spotted white, sandy silty clay (alluvium). Laboratory test results shown that pH values of these soil samples were at 6-8, and moisture contents (dried 103°C) were 10-15%.

Anticipated Future use of the Site

In accordance with the current Project construction plan, no construction work is scheduled at Site Q. The Site Q will be used for temporary storage of construction material and equipment during the construction period and will form part of the general railway facilities after construction. Limited space is available at the Site Q and the surrounding areas for remediation.

Time Available for Remediation

The contaminated zone at Site Q will be identified as "No-Works Zone" before the approval of RAP and technical note from EPD. As the there is currently no construction work scheduled at Site Q, there is no strict time constraints for remediation identified. However, the remediation work shall be cost-effective and completed before the end of the Project. No construction work shall be carried out at Site Q prior to the removal of the contaminated soil and the approval of technical note by EPD.

6.3.2 Comparison of Remediation Methods

Based on the above background information, six soil remediation methods were considered suitable for the treatment of DEHP according to the chemical nature as summarized in *Table 6.2* below. These include four *ex-situ* (biopiling, chemical methods, landfarming and landfilling) and two *in-situ* (natural attenuation and soil venting) remediation methods. The applicability and limitations of each method are also discussed below.

Upon consideration of soil quantity and the application experience in Hong Kong from the proposed selected remediation techniques in *Table 6.2*, excavation followed by biopiling is identified as the most practical approach.

6.3.3 Biopile Remediation

Biodegradation is a process which makes use of the biodegradation ability of naturally occurring or specifically added bacteria to break down the contaminants in the soil or to convert them into harmless substances. The chemical nature of DEHP renders this chemical suitable for biological degradation and biopiling methods have a successful track record in Hong Kong, it has been implemented in former Kai Tak Airport, Choi Lee Shipyard and North Tsing Yi shipyard.

Since the future usage of the site will be for the operation of railway facilities, the remediation target for DEHP is proposed to be the RBRGs for Soil for industrial land use (91.8 mg kg^{-1}). After successful decontamination of the soil, it is suitable to be reused in other location if the Site is determined as geotechnical unsuitable. No importation of clean backfill is required if the treated soil can be reused within the site. Based on the quantity of contaminated soil identified and the existing contamination range (356-2540

mg kg^{-1}), it is estimated that approximately six months is required for treatment using the biopiling method.

Table 6.2 List of Possible Remedial Measures for Contaminated Soil

Remediation Options	Descriptions	Applicability and Environmental Advantages	Limitations and Environmental Disadvantages
Biopiling	*Ex-situ* soil bio-treatment which bacteria grows in the piled contaminated soil and wastes are degraded into harmless products	(i) Effective for treatment of soil contaminated with non-halogenated VOCs and fuel hydrocarbons. (ii) Most cost-effective for large volumes of contaminated soil. (iii) Material and equipment are commercially available. (iv) Manageable vapour emission and a closed system can be employed.	(i) Labour-intensive and require considerable maintenance. (ii) Not cost-effective for small volume of contaminated soil treatment and relatively time consuming. (iii) Process effectiveness varies depending on the contaminants (eg halogenated VOCs and SVOCs). (iv) Treatment for high level of contamination is not preferable.
Chemical treatment (*ex-situ* oxidation)	*Ex-situ* chemical oxidation is designed for mass reduction of contaminants from soil medium. Required chemical is directly applied to the excavated soil in a controlled manner. Process can be optimized by well mixing of chemical and soil.	(i) Effective for a large range of soil and groundwater contaminants including DEHP. (ii) Preparatory oxidants which leave behind very little residue are available. No negative effect on natural attenuation or quality of groundwater (iii) Rapid target oxidation can be achieved	(i) Site-specific (contaminant dependence) (ii) Requires handling of large quantity of hazardous oxidizing chemicals. Storage of chemicals should be carefully sited away from combustible material, acids, bases and heat source. Personnel handling the hazardous material should be well trained (iii) Less certain to effectiveness when used in low-permeability soil.
Landfarming	*Ex-situ* bioremediation method with mixture of soil and bacteria in exposed atmosphere.	(i) Effective treatment of soil contaminated with hydrocarbons. (ii) Simple to design and implement.	(i) Possible inducement of dust and vapour emission to sensitive receivers (surrounding facilities) and relatively hard to control. (ii) Large space is required for system development. (iii) Long treatment duration (can up to 2 years).
Excavation and Landfill Disposal	*Ex-situ* method which contaminants are removed by excavation of contaminated soil and direct disposal to landfill.	(i) The simplest and quickest way to dispose large volume of contaminated soil. (ii) Contamination is removed definitely. (iii) Wide experience in Hong Kong. (iv) Applicable to all waste or mixture that meet the land disposal restriction treatment standards. (v) Common for shallow, highly-contaminated soil treatment.	(i) Pre-treatment maybe needed to meet landfill disposal criteria. (ii) Consume limited and valuable landfill space. (iii) Indirect costs to landfill management on monitoring and maintenance. (iv) Potential long term liabilities to landfill. (v) Importing of clean backfill material is required. (vi) Approval from EPD is prerequisite and is the least desirable management option.

Remediation Options	Descriptions	Applicability and Environmental Advantages	Limitations and Environmental Disadvantages
Natural Attenuation	*In-situ* bioremediation method with a variety of physical, chemical and biological processes that, under favourable conditions, act without human intervention on decontamination process. Processes include biodegradation, dispersion, dilution, sorption, volatilization, chemical or biological stabilization or destruction of contaminants.	(i) Applicable to non-halogenated VOCs, SVOCs and fuel hydrocarbons (ii) Minimal technologies required. (iii) No disturbance to on-going site operation. (iv) Possible adoption in inaccessible locations (eg below buildings). (v) No operation and maintenance requirements. (vi) No large scale of soil excavation is needed. (vii) Access to the site is mostly allowed.	(i) Site conditions must be suitable to support the attenuation process. (ii) Contaminated plume behaviour should be carefully studied, extensive amount of data must be collected to assess the condition of the contaminants. (iii) Not applicable to expanding plume situation. (iv) Possible increase in mobility and toxicity of intermediate degradation products than original contaminant. (v) Routine monitoring is required. (vi) Time line for site cleanup is long (take over years) depending on optimal site conditions (hydrogeology and geochemistry of the site).
Bioventing	*In-situ* bioremediation method that uses indigenous bacteria to degrade contaminants. Better aeration can enhance decontamination process or, by adding nutrients if necessary.	(i) Effective in remediating soils contaminated with petroleum hydrocarbons, non-chlorinated solvents pesticides and other organic chemicals. (ii) Applicable to large and wide-spread contamination. (iii) Equipments are commercially available and easy to install. (iv) Manageable vapour emission but not to the extent of biopiling due to the *in-situ* nature of the treatment method. (v) Suitable for remediation in built up areas because wells can be placed between or below buildings.	(i) Effectiveness is affected by soil moisture content. (ii) Performance decline with the permeability of soil. (iii) Large space for system development. (iv) Possible inducement of air emission to sensitive receivers, off-gas treatment required.

6.4 EXCAVATION AND BIOPILING

6.4.1 Excavation, Delineation and Confirmatory Sampling

As mentioned in *Section 6.2.1*, two areas of 25m^2 (5m x 5m) contaminated zones centered at Q-04 and Q-05 are initially adopted, as presented in *Figure 6.1, Annex A*.

Excavation Plan

Detailed design drawings for planned excavation will be prepared by contractor indicating the area concerned. Parameters such as areas and depths of excavation, engineering properties and stability of the soil will be considered for safe working condition. The excavation plan will comply with the geotechnical properties of the soil as well as appropriate safety factors by MCJV. In addition, the contaminated zone to be excavated will be set out by a qualified and licensed land surveyor.

Excavation and Confirmatory Sampling at Q-04 Contaminated Zone

The contaminated soil (as per initial contaminated zone) at Q-04 will be excavated and transferred to a lined treatment area for homogenization. Free product, if encountered, will be recovered and drummed properly and collected by licensed chemical waste collector for proper handling and treatment.

After the excavation and prior to backfilling, confirmatory sampling will be carried out at the base of excavation (CSII-05) and four boundary wall (CSII-01 to CSII-04) of the excavated contaminated zone to ensure all contaminated soil has been removed (*Figure 6.1, Annex A*). The samples will be analysed for DEHP to determine if further excavation is necessary. If the analytical results exceed the relevant RBRGs, additional soil will be excavated in 1 m increments vertically or horizontally. Corresponding samples will be taken from the newly excavated boundary wall for further analysis. The described excavation and confirmatory sampling process shall be repeated until all confirmatory samples show contaminant level below the relevant RBRGs. When the results are below the relevant RBRGs, removal of contaminated soil is considered complete.

Delineation Sampling and Excavation at Q-05 Contaminated Zone

As contaminated soil at Q-05 is located at 4.95 – 5.85m bbc. Borehole method is proposed for collecting the delineation samples at the walls of the initial contaminated zone before excavation. Four boreholes (CSIII-01 to CSIII-04) will be drilled down to 6m below ground. One undistributed sample will be collected at 5.00 - 5.45 m bbc at each borehole and tested for DEHP. If the analytical results exceed the relevant RBRGs, additional boreholes will be drilled in 1m increments horizontally. Corresponding samples will be taken

from the newly drilled boreholes for further analysis. The described sampling process shall be repeated until all samples show contaminant level below the relevant RBRGs.

Sampling at the bottom of the contaminated zone is needed as previous laboratory testing results at Q-05 5.85-6.75m bbc shown no exceedances of DEHP during Stage 1 SI.

If the results are below the relevant RBRGs, the contaminated soil at Q-05 will be excavated and transferred to a lined treatment area for homogenization. Free product, if encountered, will be recovered and drummed properly and collected by licensed chemical waste collector for proper handling and treatment.

Contaminated Soil Handling

Although DEHP strongly adsorbs to soil particles and is not easy to leach due to its low water solubility, to minimize the risk of cross contamination with unaffected ground, spoil generated during excavation will be placed on an impermeable surface within the treatment area.

Demarcated No-works area

A "No-Works Zone" will be set in Site Q. No construction activities will be allowed within the No-Works Zone until the confirmatory samples collected from site Q-04 and Q-05 show no exceedance of relevant RBRGs and all the contaminated soil are removed. The approval of technical note by EPD is also necessary for the commencement of any construction activities. A technical note will be submitted to EPD to report the results of the confirmatory samplings and excavation at Q-04 and Q-05. Construction works within the area will be resumed upon the submission and agreement of CAP, CAR/RAP, and technical note. Fencing and warning signs will be provided at the boundaries of the No-Works Zone to prevent working within the area (*Figure 6.2, Annex A*).

Health and Safety

All construction activities will be carried out by personnel who have received training in health and safety and with appropriate personal protective equipment. The guidelines listed below should be strictly followed by all site personnel working on contaminated areas at all times:

- Temporary fencing or warning ribbons will be provided at the boundary of excavation, slope crest and temporary stockpiled areas.
- Exposed areas will be temporarily covered with impermeable sheeting during heavy rainstorm.
- Workers will be required to wear appropriate protective clothing and safety equipment.

- Smoking, eating and drinking is strictly prohibited.
- Relevant occupational health and safety regulations and guidelines during excavation will be observed.

All excavation and sampling work will be supervised by a Land Contamination Specialist. Subsequent construction activities can only be carried out after delineation sampling and excavation at the contaminated site is completed.

6.4.2 Biopiling Design and Implementation

Biopiling is a commonly accepted ex-situ bioremediation method for restoration of sites contaminated with biodegradable organic contaminants. Biopile transforms hazardous/toxic materials into harmless elements (water, carbon dioxide and other innocuous products) with the use of microorganism. The biopiling method for the remediation of DEHP contaminated soil from Site Q is described below.

Biopile Formation

One Biopile will be formed from the contaminated soils excavated from Q-04 and Q-05. The soil will be thoroughly mixed to form a uniform starting concentration which is essential to facilitate the control of bioremediation and to optimize cleanup times. In order to maintain a uniform soil density within the biopile, compaction of the piled soil by excavation machinery will be avoided. Bulking agents, which may affect the geotechnical properties of the soil and cause difficulty in compaction during backfilling, are not usually added.

The biopile will be installed with an aeration system to maximize air circulation and enhance aerobic conditions for the growth of microbial. An ventilation and air treatment system will also be provided to manage vapour emissions from the biopile.

Impermeable sheeting will be placed at the base of biopile. However, leachate control system is not required due to the strong tendency to absorb to soil by the contaminant (DEHP). A simple temporary bund will be constructed around the stockpile to prevent migration of any surface runoff during wetting. Collected leachate/runoff will be re-used for wetting of the biopile.

The biopile will be covered with impermeable sheeting to avoid fugitive emission of dust affecting the surrounding environment.

Adequate turning will be undertaken during biopile formation and operation to maximize air circulation and enhance aerobic conditions for the growth of microbial.

Biopile Operation

The biopile operation will involve the induction of air into the biopile resulting from the establishment of a negative pressure field within the biopile. The negative pressure encourages the evaporation and volatilization of part of the DEHP adsorbed to the soil particles. The inducted air collects the vapour and transports it via the extraction pipes out of the biopile. The inducted air also maintains aerobic conditions in the soil pores which encourage biodegrading of the remaining contaminant. The biopile soil will also be mechanically turned using a standard excavator bucket in order to introduce sufficient air for the growth of microbial on a regular basis.

It is expected that the gas obtained from the biopile shall comprise a mixture of air, water vapour, carbon dioxide, and vapourized DEHP. The exhaust air shall be passed through an activated carbon filter prior to discharge.

Suitable conditions in the biopile shall be maintained for the growth of microbes. Moisture should be added to the soil periodically to maintain a moisture content ranging from 10 %to 20%. The optimal oxygen concentration in soil gas is 15% to 20%. The soil pH shall be maintained between 5 and 8 for bacteria growth. Nutrients are also required to promote microbial activities. Regular progress monitoring shall be conducted to ensure the above condition can be maintained.

Biopile Cleanup Progress Monitoring

The objective of progress monitoring can be summarized as follow:

- To maintain the progress of the decontamination process; and
- To ensure suitable condition is maintained for the optimization of microbial growth;

Progress monitoring will involve periodic sampling and physical parameter monitoring.

Soil gas monitoring points will be installed within the biopile. In-situ sampling of oxygen (0-25% v/v), carbon dioxide (0-100% v/v), methane (0-100% v/v) and VOC (ppm) concentrations in the soil gas will be conducted once every month. Soil gas samples will be taken by a drawing gas samples from the monitoring points through a vacuum pump.

In addition, soil sampling will be conducted on a monthly basis for testing of pH, nutrients (Nitrogen: Phosphate: Potassium composition), bacteria (in cfm) and DEHP ($mgkg^{-1}$). Approximately four composite samples (one sample per every 10-30m^3 of soil) will be taken at different portions of the biopile The monitoring will be continued until the cleanup targets are achieved.

Biopile Closure Assessment

Biopile closure assessment will be conducted to ensure that the soil contaminant levels in the biopile meet the cleanup targets for DEHP. Samples will be collected from the biopile (one sample per every 10m^3 of soil) for biopile closure assessment.

All soil samples shall be analyzed for DEHP. The laboratory results are considered to be satisfactory when the levels of DEHP meet the relevant RBRGs using method USEPA method 8270 (or equivalent).

The decontaminated soil can be used as fill material on or off-site in accordance with the referenced RBRGs land-use scenario.

6.5 REMEDIATION REPORT

After the completion of biopile treatment, a Remediation Report (RR) shall be prepared by the Land Contamination Specialist to report the remediation process and that all target contaminant(s) has treated with the use of proper method and the result is able to meet the corresponding RBRGs. Relevant information such as details of biopile closure assessment, photographs of sampling results, quantity of soil treated, and the subsequent backfill site of the treated soil shall be included in the RR.

6.6 MITIGATION AND SAFETY MEASURES

In order to minimize the potential adverse effect to the environment due to the handling of contaminated materials, the following environmental mitigation measures are proposed during the course of site remediation.

- Excavation profiles shall be properly designed and executed;
- An impermeable surfacing shall be placed under the stockpile and a cover should be employed to prevent dust emission and possible cross contamination. If not applicable, regular watering shall be applied; and
- Trucks carrying contaminated materials shall be enforced with speed control.

In order to reduce the potential adverse effect to the environment due to the handling of potentially contaminated materials during the process of remediation, the *Occupational Safety and Health Ordinance (OSHO) (Chapter 509)* and its subsidiary regulations shall be followed by all site personnel at all times. Besides, the following basic health and safety measures shall be implemented as far as practicable:

- Set up a list of safety measures for site personnel;
- Provide written information and safety training for site personnel;
- Keep a log book and plan indicating the contaminated and clean area;

- Avoid dust generation;
- Provide face and respiratory protection gear to site personnel;
- Provide personal protective clothing (chemical resistant jacket, liquid tight gloves) to site personnel; and
- Provide first aid training and materials to site personnel.

7 CONCLUSION

A total of 29 hotspot and ten supplementary sampling locations were identified at Sites M, N1, N3, N4, O, P, Q and R during both Stage 1 SI in 2009 and Stage 2 SI in 2011. A total of 182 soil samples (including ten soil duplicates) and 26 groundwater samples (including two groundwater duplicates) were collected from these sampling locations.

Based on the analytical results, soil samples collected from Sites M, N1, N3 and N4, O, P, Q and R did not contain CoCs exceeding the RBRGs for Soil for Industrial Land Use or C_{sat}, except Q-04 1.5-2.4m bbc and Q-05 4.95-5.85m bbc. Both samples were detected with exceedance of the DEHP RBRGs (91.8 $mgkg^{-1}$) with concentrations ranging from 356 to 2,540 $mgkg^{-1}$.

During the Stage 2 intrusive SI works, hydrocarbon odour was noted and visible oily sheen and stain were observed in the soil sample collected at the depth of 3.0m bbc at P-03. However, the analytical analysis of the soil sample indicated that the concentrations of Petroleum Carbon Ranges (C_6-C_8, C_9-C_{16} and C_{17}-C_{35}) were more than six times lower than the RBRGs for Soil for Industrial Land Use and three times below C_{sat}.

For groundwater samples analytical results, all water samples collected from Sites M, N1, N3, N4, O, P, Q and R did not contain contaminants exceeding the RBRGs for Groundwater for Industrial Land Use nor the Solubility Limits. Most tested parameters (Mercury, VOCs, SVOCs and PCBs) were reported below the detection limits. Only a relatively low concentration of C_{17}-C_{35} (a detected concentration of 0.7 $mgkg^{-1}$ in comparison to the RBRGs Limit of 178 $mgkg^{-1}$) was observed in sampling locations R-01 and R-02. Also, field observations indicated that no visual or olfactory evidence of contaminations were detected during water samplings (neither odour nor non-aqueous phase liquid was observed).

In conclusion, the analytical results indicated that no exceedance of relevant RBRGs has been detected from the soil and groundwater samples obtained from Sites M, N1, N3, N4, O, P, and R. Based on the above findings, soil and groundwater remediation at the Sites M, N1, N3, N4, O, P, and R is not warranted. However, soil remediation at Site Q is needed and a RAP is presented in *Section 6* to identify contamination extent and appropriate remediation actions for the contaminated soil prior to construction works commencement in Site Q.

Annex A

Figures

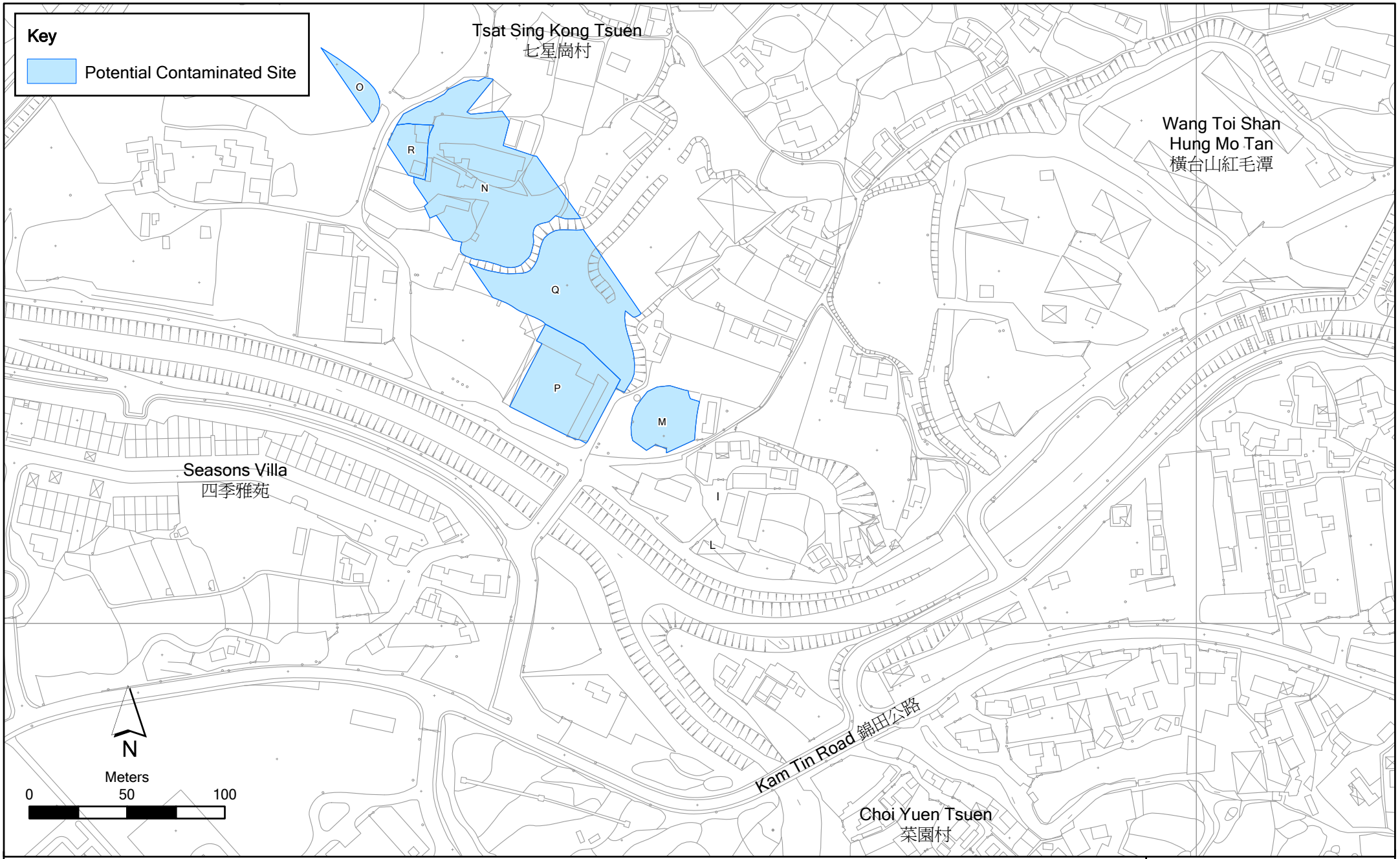


Figure 1.2

Locations of Site M, N, O, P, Q and R

The Express Rail Link Contract 823A-
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

File: 0125309_Contaminated site_MNOPQR.mxd
Date: 30/03/2011

Environmental Resources Management

ERM

Key

- Boundary of Usage
- Supplementary Sampling Location
- Completed Borehole During EIA Stage
- Potential Contaminated Site

Site M

M-01
M-02
M-03
M-04
M-05
M-06
M-07



Photo M-1: Open Area



Photo M-3: Open Area



Photo M-2: Open Area

Borehole/Trial Pit ID	As-built Coordinates	Constructed Borehole Depth (m bgl)	Hotspot Identified or Supplementary Locations	Soil		Groundwater Parameters Analyzed	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
				Sample Depths (m bgl)	Parameters Analyzed			
M-01	E 826718.54 N833696.62	6.9	AST	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9	Cadmium, Chromium III, Chromium VI, Copper, Mercury, Nickel, Lead, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs, Cyanide	No groundwater encountered during soil samplings	13.70	-
M-02	E 826735.99 N833694.01	6.9	AST	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9			13.78	-
M-03	E 826726.68 N833713.82	6.9	AST	1-1.9, 2-2.9, 3-3.9, 4.5-5.4, 6-6.9,			13.63	-
M-04	E 826739.09 N833715.61	6.9	AST	0.5-1.4, 1.5-2.4, 3-3.9, 4.5-5.4, 6-6.9			13.74	-
M-05	E 826739.321 N 833702.421	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			13.78	-
M-06	E 826718.556 N 833702.423	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			13.70	-
M-07	E 826729.100 N 833702.433	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			13.75	-

Metres
0 5 10 20

Figure 2.1a

Hotspots and Supplementary Site Investigation Locations at Site M

The Express Rail Link Contract 823A –
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

FILE: 0125309l2
DATE: 21/09/2011

Environmental Resources Management

ERM

Key

- Boundary of Usage
- Supplementary Sampling Location
- Hotspot
- Potential Contaminated Site
- Trees

Site O

Site N1

Site N2

Site N3

Site N4

Site R

O-01
O-02
N1-01
N1-02
N3-01
N3-02
N3-03
N3-04
N3-05
N3-06
N4-01
R-01
R-02
R-03
R-04

Access Road



Photo N1-1: Previous Vehicle Repairing Workshop



Photo N2-1: Village House



Photo N2-1: Abandoned Pigeon Nursery House



Photo O-1: Concrete Paved Area with New Hoarding



Photo N3-1: Previous Vehicle Repairing Workshop



Photo R-1: Vehicle Repairing Workshop



Photo N3-2: Previous Vehicle Repairing Workshop



Photo R-2: Waste Oil Storage Area



Photo N3-3: Previous Vehicle Repairing Workshop



Photo N4-1: Construction Material Storage Area



Photo N4-2: Previous Vehicle Repairing Workshop

Metres

0 10 20 40

Borehole/Trial Pit ID	As-built Coordinates	Constructed Borehole Depth (m bgl)	Hotspot Identified or Supplementary Locations	Soil		Groundwater Parameters Analyzed	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
				Sample Depths	Parameters Analysed			
N1-01	E 826609.623 N 833862.451	6.1	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	Petroleum Carbon Ranges, VOCs, SVOCs	10.65	7.26
N1-02	E 826625.578 N 833871.083	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45 4.5-4.95			10.72	7.65
N3-01	E 826617.823 N 833829.412	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45, 6-6.45			10.47	6.37
N3-02	E 826634.552 N 833821.893	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45 4.5-4.95			10.99	7.6
N3-03	E 826637.461 N 833804.102	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45 4.5-4.95			10.54	7.2
N3-04	E 826654.442 N 833817.305	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45 4.5-4.95			10.74	7.58
N3-05	E 826657.641 N 833803.032	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45, 6-6.45			10.59	7.54
N3-06	E 826647.712 N 833792.633	6.45	Vehicle Repair Workshop/Area	0.5, 1.5, 3-3.45 4.5-4.95			10.65	7.02
N4-01	E 826619.241 N 833806.421	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95			10.79	7.31
O-01	E 826578.812 N 833865.620	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	Petroleum Carbon Ranges, VOCs, SVOCs	10.53	6.84
O-02	E 826560.335 N 833885.650	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			10.89	7.14
R-01	E 826588.633 N 833845.875	6.45	Waste Container & Storage Area	0.5, 1.5, 3-3.45	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	Petroleum Carbon Ranges, VOCs, SVOCs	10.65	6.85
R-02	E 826602.236 N 833832.528	6.45	Vehicle Repairs Area	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			10.62	6.76
R-03	E 826596.703 N 833837.201	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			10.63	6.69
R-04	E 826596.771 N 833852.303	6.45	Supplementary	0.5, 1.5, 3-3.45, 6-6.45			10.46	6.79

Figure 2.1b

Hotspots and Supplementary Site Investigation Locations at Site N1, N2, N3, N4, O and R

The Express Rail Link Contract 823A –
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

FILE: 0125309l1
DATE: 07/09/2011

Key

- Boundary of Usage
- Supplementary Sampling Location
- Proposed Hotspots by Borehole Drilling
- # Proposed Hotspots by Trial Pit Excavation
- Completed Borehole During EIA Stage
- Potential Contaminated Site

Site Q

Site P

Q-07
Q-03
Q-02
Q-05
Q-04
Q-01
Q-06
P-05
P-06
P-03 #
P-08
P-02
P-09
P-04 #
P-10
P-07 #
P-01



Photo Q-1: Access Road



Photo Q-2: Open Area



Photo P-6: Previous Oil Drums Stoage Area



Photo P-5: Abandoned Factory used as Storage Area



Photo P-3: Transformer Room

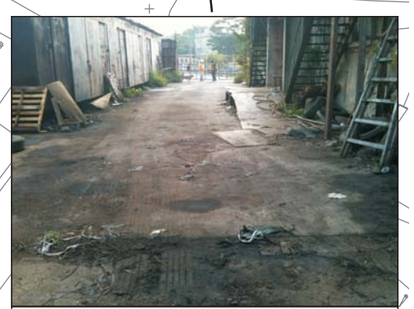


Photo P-1: Parking Area

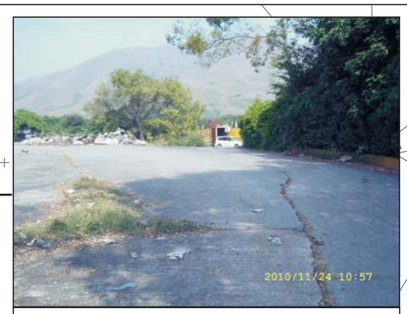


Photo Q-3: Access Road



Photo P-4: Previous Oil Drums Storage Area



Photo P-2: Aboveground Storage Tanks and Freight Containers

Borehole/Trial Pit ID	As-built Coordinates	Constructed Borehole Depth (m bgl)	Hotspot Identified or Supplementary Locations	Soil		Groundwater Parameters Analyzed	Borehole Ground Level (mPD)	Static Groundwater Level (mPD)
				Sample Depths	Parameters Analysed			
P01	E 826685.421 N 833701.633	6.45	Parking Area	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45	Cadmium, Chromium III, Chromium VI, Copper, Mercury, Nickel, Lead, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs, Cyanide	Mercury, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs	10.79	6.97
P-02	E 826692.623 N 833717.247	6.45	Parking Area	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45			10.9	7.3
P-03	E 826686.683 N 833727.823	Trial Pit	Storage Area (oil drums)	0.5, 1.5, 3.0		No groundwater encountered during soil samplings	11.14	-
P-04	E 826683.660 N 833714.421	Trial Pit	Storage Area (oil drums)	0.5, 1.5, 3.0			10.85	-
P-05	E 826674.726 N 833740.401	6.45	Storage Area (oil drums)	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45		Mercury, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs	11.12	7.22
P-06	E 826664.643 N 833734.321	6.2	Storage Area (oil drums)	0.5, 1.5, 3-3.45 4.5-4.95			10.9	6.9
P-07	E 826667.228 N 833707.152	Trial Pit	Storage Area (oil drums)	0.5, 1.5, 3.0		No groundwater encountered during soil samplings	10.88	-
P-08	E 826693.139 N 833725.125	6.5	AST	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45		Mercury, Petroleum Carbon Ranges, VOCs, SVOCs, PCBs	10.99	8.26
P-09	E 826694.642 N833721.611	6.5	AST	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45			10.82	8.18
P-10	E 826695.258 N833719.306	6.5	AST	0.5, 1.5, 3.0-3.45, 4.5-4.95, 6.0-6.45			10.85	8.09
Q-01	E 826683.81 N 833756.37	6.3	Scattered vehicle repair area	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.3	Lead, Chromium III, Chromium VI, Copper, Zinc, Petroleum Carbon Ranges, VOCs, SVOCs	No groundwater encountered during soil samplings	11.63	-
Q-02	E 826688.32 N 833772.40	6.3	Scattered vehicle repair area	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.2			11.77	-
Q-03	E 826674.48 N 833778.64	6.9	Scattered vehicle repair area	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.4, 6-6.9			11.77	-
Q-04	E 826664.53 N 833765.61	7.2	Water container disposal area	0.5-1.4, 15-2.4, 3-3.9, 4.95-5.85, 5.85-6.75, 6.75-7.2			11.8	-
Q-05	E 826654.64 N 833769.27	7.2	Water container disposal area	0.5-1.4, 1.5-2.4, 3-3.9, 4.95-5.85, 5.85-6.75			11.7	-
Q-06	E 826701.213 N 833748.153	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95, 6-6.45		Petroleum Carbon Ranges, VOCs, SVOCs	11.65	7.65
Q-07	E 826683.812 N 833790.643	6.45	Supplementary	0.5, 1.5, 3-3.45 4.5-4.95			11.87	8.15

Metres
0 10 20 40

Figure 2.1c

Hotspots and Supplementary Site Investigation Locations at Site P and Q

The Express Rail Link Contract 823A –
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

FILE: 0125309I
DATE: 07/09/2011

Environmental Resources Management

ERM

Key

- Boundary of Usage
- Proposed Delineation Sampling Borehole
- Completed Borehole During EIA Stage
- Contaminated Area

Proposed Delineation Sampling Boreholes ID	Coordinate		Depth (meter Below Base of Concrete)
	Easting	Northing	
CSII-01	826665.66	833764.61	1.4 - 2.9
CSII-02	826662.10	833764.73	1.4 - 2.9
CSII-03	826662.05	833768.17	1.4 - 2.9
CSII-04	826665.66	833768.22	1.4 - 2.9
CSII-05*	826664.53	833765.61	2.9
CSIII-01	826656.63	833771.14	4.45 - 5.85
CSIII-02	826656.66	833767.28	4.45 - 5.85
CSIII-03	826652.82	833767.79	4.45 - 5.85
CSIII-04	826653.18	833771.01	4.45 - 5.85

* Proposed dilineation sampling at completed borehole location during EIA stage

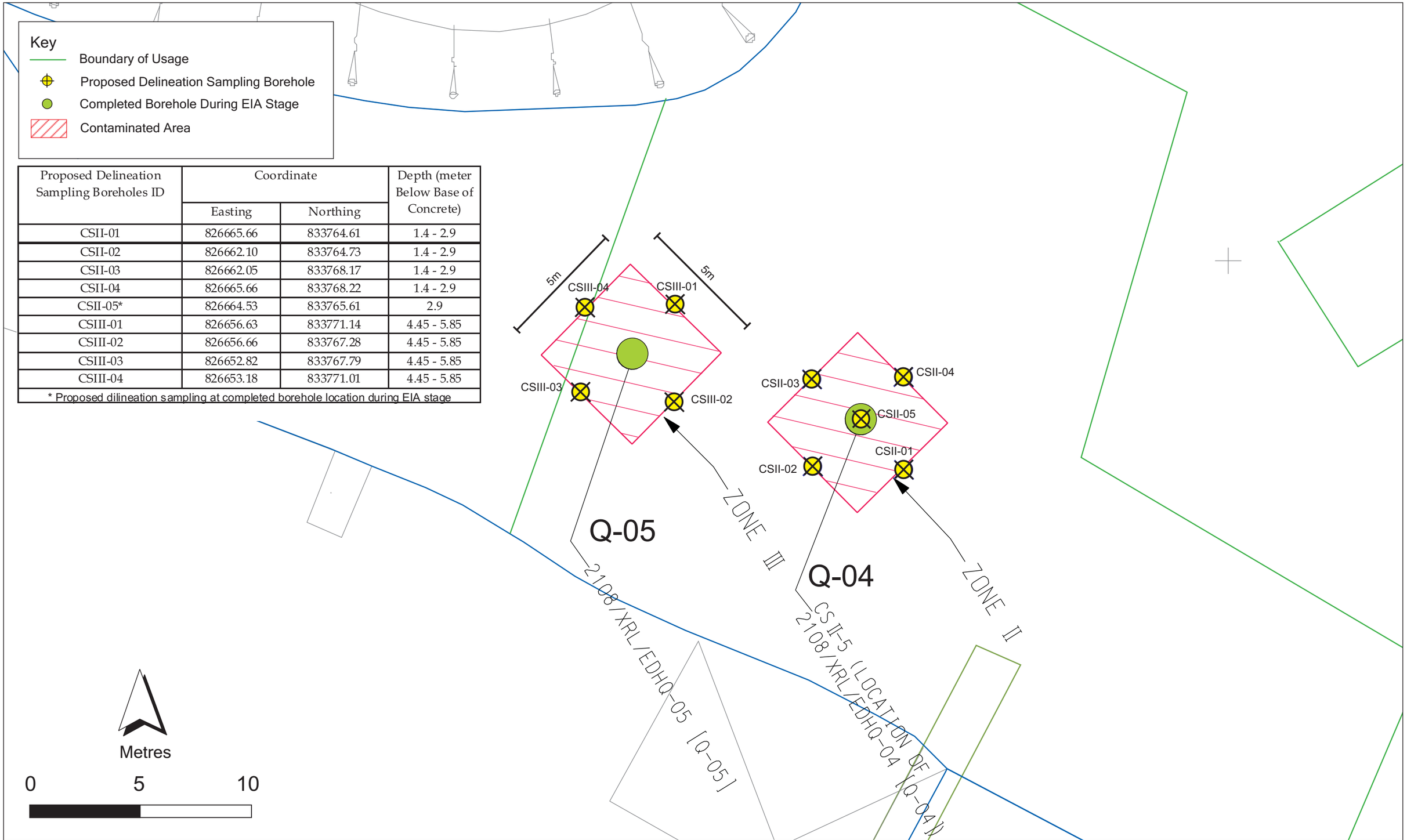


Figure 6.1

Location of Delineation Sampling at Site Q

The Express Rail Link Contract 823A –
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

FILE: 0125309r
DATE: 21/09/2011

Environmental Resources Management

ERM

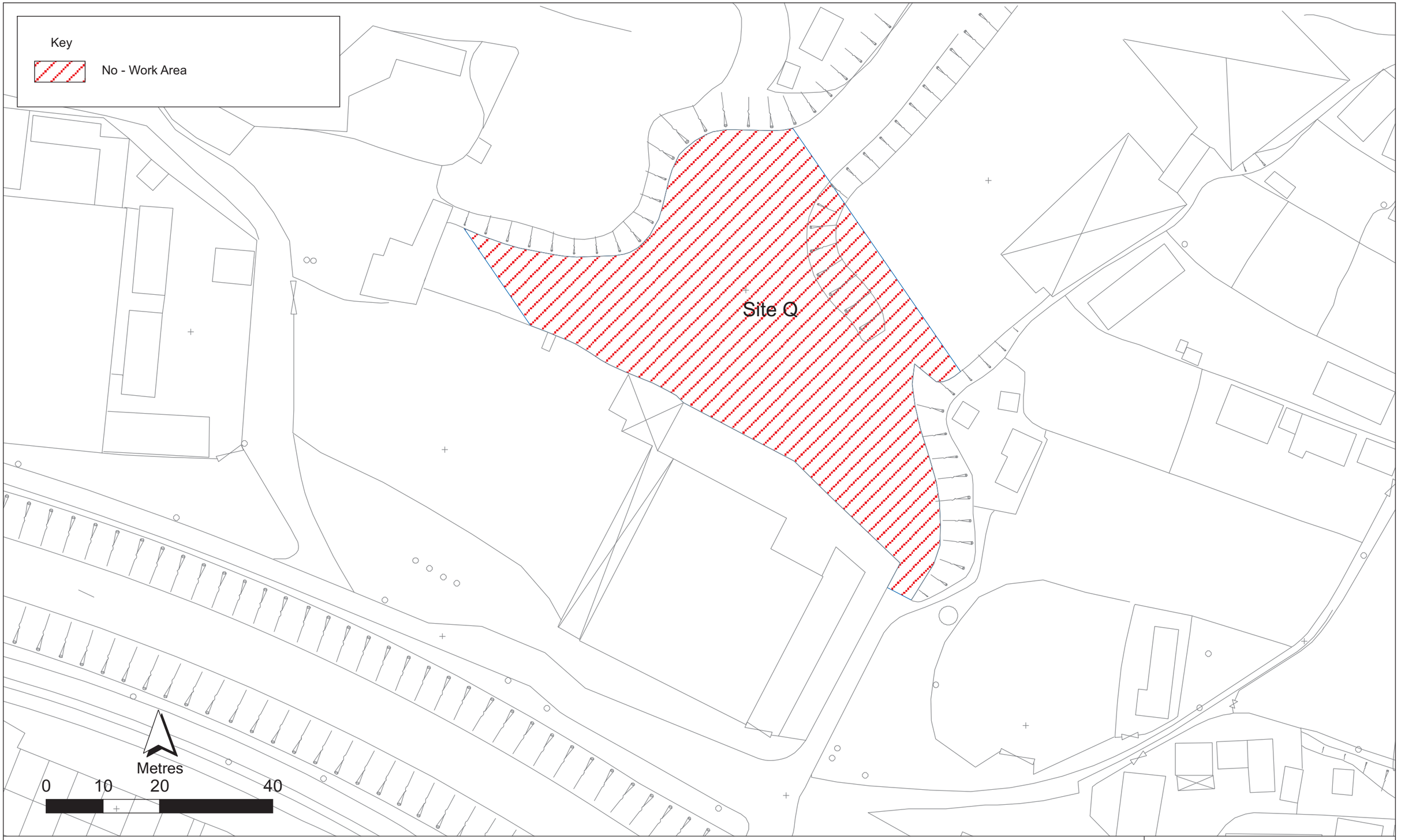


Figure 6.2

No - Work Area

The Express Rail Link Contract 823A –
Tai Kong Po to Tse Uk Tsuen Tunnels (XRL 823A)

FILE: 0125309r1
DATE: 01/09/2011

Environmental
Resources
Management

ERM

Annex B

Borehole Logging Report and Selected Photographs

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHM01**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT **Contract NEX/2108 Ground Investigation Works for Express Rail Link**

METHOD **Rotary Cored**	CO-ORDINATES **E 826718.54**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR136**	**N 833696.62**	DATE FROM **17/03/2009** TO **20/03/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+13.70** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17/03/2009	PX	08:00							+13.70	0.00			Firm, yellowish brown spotted white, sandy clayey SILT with occasional angular fine to medium gravel sized highly decomposed tuff fragments. (ALLUVIUM)
								1 INSPECTION PIT		0.50			
								2		1.00			
								3	+12.20	1.50			
17/03/2009		Dry at 18:00						4					Firm to stiff, brownish yellow spotted white, sandy clayey SILT with occasional angular fine gravel sized quartz fragments. (ALLUVIUM)
20/03/2009		Dry at 08:00								2.00			
			100				89 blo	5	+10.70	3.00			Stiff, reddish yellow spotted white, striped red, sandy clayey SILT. (ALLUVIUM)
			100				94 blo	6		3.90			
									+9.20	4.50			
			100				54 blo	7					Stiff, yellowish red spotted and dappled light grey, sandy clayey SILT with some subangular fine to coarse gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
			100				74 blo	8		5.40			
									+7.70	6.00			
			100				16 blo	9				V	Extremely weak, yellowish red spotted white, completely decomposed, coarse ash crystal TUFF. (Stiff, sandy clayey SILT with occasional fine to medium gravel)
20/03/2009	PX 6.90	Dry at 18:00	100				35 blo	10	+6.80	6.90			
													Hole completed at 6.90m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Y.K. Lee**

DATE **21/03/2009**

CHECKED **James Lu**

DATE **23/03/2009**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHM02**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826735.99**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR136**	**N 833694.01**	DATE FROM **20/03/2009** TO **23/03/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+13.78** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20/03/2009	PX	08:00						1 2 3 4 INSPECTION PIT	+13.78	0.00			Firm, yellowish brown spotted white, sandy clayey SILT with occasional angular fine to medium gravel sized highly decomposed and moderately decomposed tuff and quartz fragments. (ALLUVIUM)
										0.50			
										1.00			
		Dry at 18:00							+12.28	1.50			Stiff, brownish yellow spotted white, sandy clayey SILT with occasional angular fine to medium gravel sized highly decomposed tuff fragments. (ALLUVIUM)
20/03/2009										2.00			
23/03/2009		Dry at 08:00											
			100				108 blo	5	+10.78	3.00			Yellowish brown spotted white, slightly clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
			100				141 blo	6	+10.33	3.45			Stiff, light yellowish brown spotted white, sandy clayey SILT with some subangular to subrounded fine to coarse gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
										3.90			
			100				95 blo	7		4.50			
			100				67 blo	8	+8.83	4.95			Stiff, reddish yellow spotted and dappled light grey, sandy clayey SILT with some subangular to subrounded fine to medium gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
										5.40			
			100				24 blo	9		6.00			From 6.00m to 6.45m : Yellowish brown with some fine to coarse gravel.
			100				23 blo		+7.33	6.45		V	Extremely weak, yellowish brown spotted white, completely decomposed, coarse ash crystal TUFF. (Stiff, sandy clayey SILT)
23/03/2009	PX 6.90	Dry at 18:00						10	+6.88	6.90			Hole completed at 6.90m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Y.K. Lee**

DATE **24/03/2009**

CHECKED **James Lu**

DATE **25/03/2009**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHM03**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826726.68**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR136**	**N 833713.82**	DATE FROM **19/03/2009** TO **21/03/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+13.63** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 19/03/2009	PX	08:00						1	+13.63	0.00			Firm, greyish brown to black spotted white sandy clayey SILT with occasional angular fine to medium gravel sized moderately decomposed granite fragments. (FILL)
1								2 INSPECTION PIT	+13.13	0.50			Stiff, greenish grey spotted white, sandy clayey SILT with occasional subangular fine gravel sized quartz fragments. (ALLUVIUM)
2								3		1.00			
								4		1.50			
		Dry at 18:00							+11.63	2.00			
19/03/2009 21/03/2009		Dry at 08:00						5		2.50			Stiff, yellowish brown spotted white, sandy clayey SILT with occasional subangular fine gravel sized quartz fragments. (ALLUVIUM)
3			78				22 b/s	6	+10.63	3.00			
			100				28 b/s		+10.18	3.45			Dark, yellowish brown spotted white, slightly clayey silty fine SAND with occasional subangular fine gravel sized quartz fragments. (ALLUVIUM)
4								7		3.90			Stiff, reddish yellow spotted white, striped red, sandy clayey SILT. (ALLUVIUM)
			89				39 b/s	8	+9.13	4.50			Dark brownish grey spotted white, silty fine to coarse SAND with occasional subangular fine to medium gravel sized fine to medium gravel sized quartz fragments. (ALLUVIUM)
5			100				91 b/s						From 4.50m to 4.95m : Greyish brown.
								9		5.40			
6									+7.63	6.00			
			78				19 b/s	10					Reddish yellow spotted white, striped red, clayey silty fine to coarse SAND with occasional subangular fine to medium gravel sized quartz fragments. (ALLUVIUM)
			100				49 b/s		+7.18	6.45		V	
7 21/03/2009	PX 6.90	Dry at 18:00						11	+6.73	6.90			Extremely weak, yellowish brown spotted white, completely decomposed, coarse ash crystal TUFF. (Stiff, sandy clayey SILT with some fine to coarse gravel)
													Hole completed at 6.90m.
8													
9													
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	**Y.K. Lee**
DATE	**23/03/2009**
CHECKED	**James Lu**
DATE	**24/03/2009**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHM04**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826739.09**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR136**	**N 833715.61**	DATE FROM **23/03/2009** TO **24/03/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+13.74** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 23/03/2009	PX	08:00						1 2 3 4 INSPECTION PIT	+13.74	0.00			Stiff, yellowish brown spotted white, sandy clayey SILT with occasional subangular fine gravel sized quartz fragments. (ALLUVIUM) From 0.50m to 2.00m : Brownish yellow.
1										0.50			
										1.00			
										1.50			
2 23/03/2009		Dry at 18:00								2.00			
24/03/2009		Dry at 08:00											
3			78				27 blo	5	+10.74	3.00			Dark yellowish brown spotted white, silty fine to coarse SAND with occasional subangular fine to medium gravel sized quartz fragments. (ALLUVIUM)
			100				52 blo	6					
4										3.90			
			100				51 blo	7	+9.24	4.50			Brownish yellow spotted white, silty fine to coarse SAND with some subangular fine to medium gravel sized quartz fragments. (ALLUVIUM)
5			100				177 blo		+8.79	4.95			
								8		5.40			Yellowish brown spotted white, silty fine to coarse SAND with much subangular fine to coarse gravel sized quartz fragments. (ALLUVIUM)
6			88				26 blo	9	+7.74	6.00		V	Extremely weak, light yellowish brown spotted white, completely decomposed, coarse ash crystal TUFF. (Stiff, sandy clayey SILT with occasional fine to coarse gravel)
24/03/2009	PX 6.90	Dry at 18:00	78				43 blo	10	+6.84	6.90			
7													Hole completed at 6.90m.
8													
9													
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Y.K. Lee**

DATE **25/03/2009**

CHECKED **James Lu**

DATE **26/03/2009**

REMARKS

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **M-05**
SHEET **1** of **1**
DATE from **28/1/2011** to **28/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833702.421 E 826739.321**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+13.780** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
28.01.11	PX								1 Inspection Pit 1	+13.780	0.000			Stiff, brown, sandy SILT (ALLUVIUM)
										+13.280	0.500			
									2	+12.280	1.500			
	3.00 PX / HX									+10.780	3.000			
									3 4	+10.330	3.450			Very stiff, brown and yellowish brown, sandy SILT with some subrounded gravel of rock fragments (ALLUVIUM)
										+9.280	4.500			
									5 6	+8.830	4.950			Yellowish brown and white, very silty, clayey, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
	6.00 HX									+7.780	6.000			
28.01.11									7 8	+7.330	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **M-06**
SHEET **1** of **1**
DATE from **28/1/2011** to **28/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833702.423 E 826718.556**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+13.700** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
28.01.11	PX								1 Inspection Pit	+13.700	0.000			Stiff, brown, sandy SILT (ALLUVIUM)
									1	+13.200	0.500			
									2	+12.200	1.500			
	3.00 PX / HX									+10.700	3.000			
									3 4	+10.250	3.450			Yellowish brown and greyish white, very silty, clayey, fine to coarse SAND with some subrounded gravel of rock fragments (ALLUVIUM)
										+9.200	4.500			
									5 6	+8.750	4.950			
	6.00 HX									+7.700	6.000			
28.01.11									7 8	+7.250	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **M-07**
SHEET **1** of **1**
DATE from **27/1/2011** to **27/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT
Rig & No. **SB-02**	**N 833702.433** **E 826729.100**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+13.750** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
27.01.11	PX								1 Inspection Pit 1	+13.750	0.000			Stiff, brown, sandy SILT (ALLUVIUM)
										+13.250	0.500			
									2	+12.250	1.500			
	3.00 PX / HX									+10.750	3.000			
									3 4	+10.300	3.450			Yellowish brown, very silty, fine to coarse SAND with rounded gravel of rock fragments (ALLUVIUM)
										+9.250	4.500			
									5 6	+8.800	4.950			
	6.00 HX									+7.750	6.000			
27.01.11									7 8	+7.300	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N1-01**
SHEET **1** of **1**
DATE from **25/1/2011** to **25/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-11**	**N 833862.451** **E 826609.623**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.650** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
25.01.11	PX								1 Inspection Pit 1	+10.650	0.000			Grey and light brown, silty, fine to coarse SAND with angular GRAVEL of rock fragments with occasional plastic and nylon rope fragments (FILL)
										+10.150	0.500			
									2 2	+9.150	1.500			
	3.00 PX													Brown, slightly silty, clayey, fine to coarse SAND (ALLUVIUM)
	HX									+7.650	3.000			
	3.80 HX								3 4 4	+7.200	3.450			
										+6.850	3.800			
				100					T2-101					Yellowish brown and grey, subrounded and rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
									5 5	+6.150	4.500			
				100				(s)	T2-101					
										+5.450	5.200			
				100					T2-101					
25.01.11									6 6	+4.650 +4.550	6.000 6.100			
														End of drillhole at 6.10m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 5.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N1-02**
SHEET **1** of **1**
DATE from **24/1/2011** to **24/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-11**	**N 833871.083** **E 826625.578**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.720** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
24.01.11	PX								1 Inspection Pit 1	+10.720	0.000			Stiff, grey and brown, sandy SILT/CLAY with occasional grass rootlets (FILL)
										+10.220	0.500			
									2	+9.220	1.500			Grey and yellowish brown, silty, clayey, fine to coarse SAND (ALLUVIUM)
	3.00 PX / HX								3 4	+7.720	3.000			
										+7.270	3.450			
				94					T2-101	+7.020	3.700			Grey and yellowish brown, subrounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
										+6.220	4.500			Greyish brown, silty, fine to coarse SAND with occasional subrounded to rounded gravel of rock fragments (ALLUVIUM)
									5 6	+5.770	4.950			
	6.00 HX							(s)	7	+4.720	6.000			Greyish brown, slightly sandy GRAVEL (ALLUVIUM)
24.01.11										+4.270	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

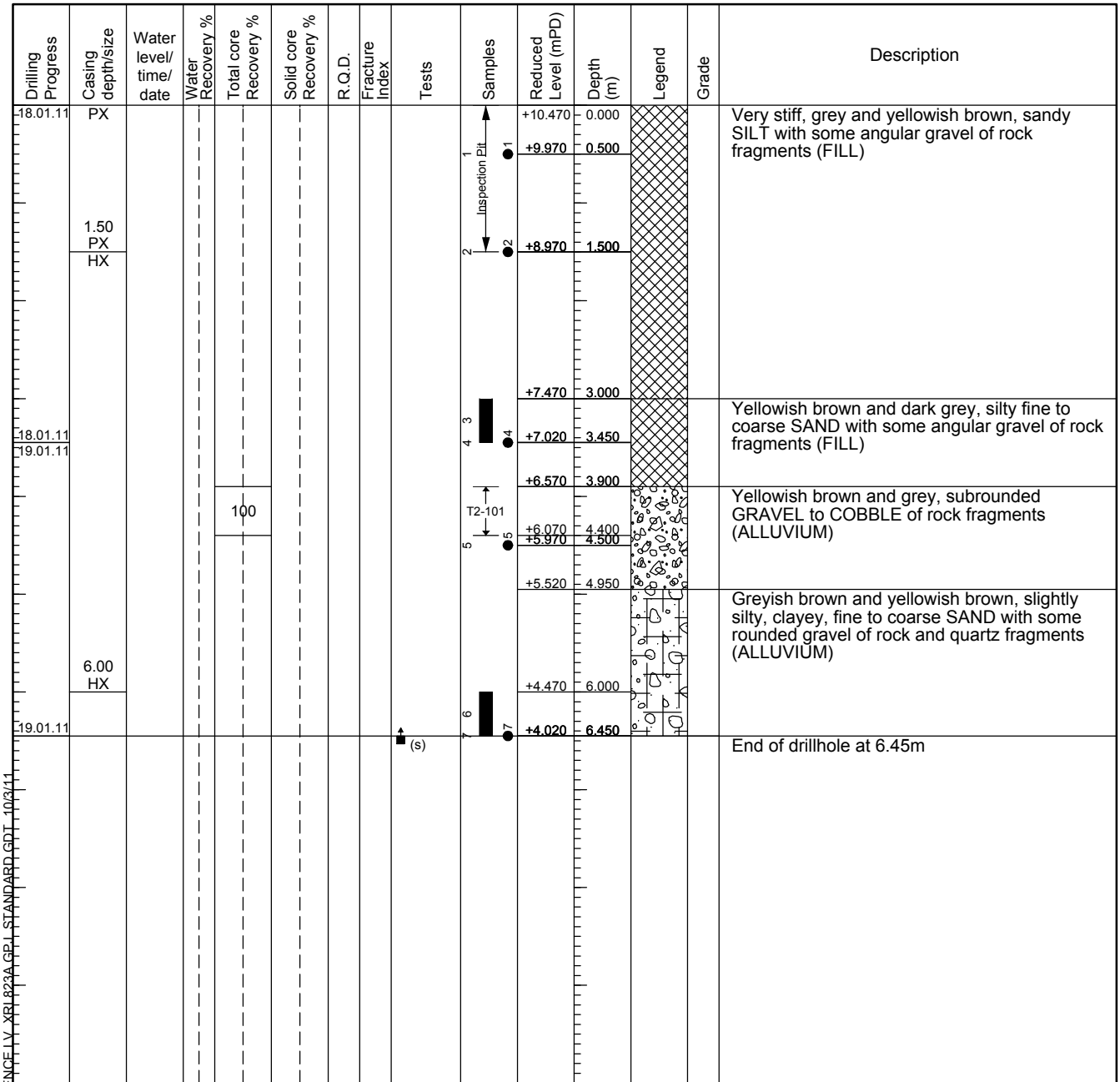
Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.	JOB NO.	
	HOLE NO.	N3-01
	SHEET	1 of 1
DRILLHOLE LOG	DATE from	18/1/2011 to 19/1/2011

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **XY-2B**	**N 833829.412** **E 826617.823**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.470** mPD



- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**

DATE **24/1/2011**

CHECKED **W.T.Chan**

DATE **26/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.45m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N3-02**
SHEET **1** of **1**
DATE from **21/1/2011** to **21/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833821.893 E 826634.552**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.990** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
21.01.11	PX								1 Inspection Pit 1	+10.990	0.000			Grey and greyish brown, silty, fine to coarse SAND with some angular gravel of rock fragments (FILL)
										+10.490	0.500			
									2	+9.490	1.500			Stiff, brown, sandy SILT (ALLUVIUM)
	3.00 PX HX								3 4	+7.990	3.000			Greyish brown and yellowish brown, silty, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
										+7.540	3.450			
									5 6	+6.490	4.500			
										+6.040	4.950			
	6.00 HX							(s)	7	+4.990	6.000			
21.01.11										+4.540	6.450			Yellowish brown, rounded GRAVEL of rock fragments (ALLUVIUM)
														End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **24/1/2011**
CHECKED **W.T.Chan**
DATE **26/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE I.V. XRL 823A.GPJ STANDARD.GDT 10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N3-03**
SHEET **1** of **1**
DATE from **20/1/2011** to **20/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-02**	**N 833804.102** **E 826637.461**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.540** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
20.01.11	PX								1	+10.040	0.500			Stiff, brown, slightly sandy SILT/CLAY (ALLUVIUM)
	1.50 PX HX								2	+9.040	1.500			Yellowish brown to brown, subrounded to rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
				80					T2-101					
										+7.540	3.000			Yellowish brown, slightly silty SAND with some subrounded gravel of rock fragments (ALLUVIUM)
									3 4	+7.090	3.450			Yellowish brown and grey, subrounded to rounded GRAVEL to COBBLE of rock fragments with occasional matrix of silty sand (ALLUVIUM)
				73					T2-101					
										+6.040	4.500			Yellowish brown and grey, slightly silty SAND with some subrounded gravel of rock fragments (ALLUVIUM)
								(s)	5 6	+5.590	4.950			
										+5.340	5.200			Yellowish brown and grey, subrounded to rounded GRAVEL to COBBLE of rock fragments with occasional matrix of silty sand (ALLUVIUM)
				90					T2-101					
	6.00 HX								7	+4.540	6.000			
20.01.11										+4.090	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **24/1/2011**
CHECKED **W.T.Chan**
DATE **26/1/2011**

REMARKS

Standpipe installed at 5.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N3-04**
SHEET **1** of **1**
DATE from **27/1/2011** to **27/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833817.305 E 826654.442**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.740** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
27.01.11	PX								1 Inspection Pit 1	+10.740	0.000			Light brown, silty, fine to coarse SAND with some angular gravel of rock fragments (FILL)
										+10.240	0.500			
									2	+9.240	1.500			Brown and greyish brown, slightly silty, clayey, fine to coarse SAND with some rounded gravel of rock and quartz fragments (ALLUVIUM)
	3.00 PX / HX								3 4	+7.740	3.000			
										+7.290	3.450			
									5 6	+6.240	4.500			
										+5.790	4.950			
	6.00 HX								7	+4.740	6.000			
								(s)						Brown, subrounded GRAVEL of rock fragments (ALLUVIUM)
27.01.11										+4.290	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N3-05**
SHEET **1** of **1**
DATE from **22/1/2011** to **22/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **XY-2B**	**N 833803.032** **E 826657.641**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.590** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
22.01.11	PX								1	+10.090	0.500			Very stiff, greyish brown and yellowish brown, slightly sandy SILT (ALLUVIUM)
									2	+9.090	1.500			Yellowish brown, subrounded and rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
	2.50 PX			85					T2-101					
	HX									+7.790	2.800			
									3	+7.590	3.000			Greyish brown and yellowish brown, slightly silty, clayey, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
									4	+7.140	3.450			
									5	+6.090	4.500			Brown, subrounded GRAVEL of rock fragments with matrix of silty sand (ALLUVIUM)
	6.00 HX							(s)		+4.590	6.000			
22.01.11									6 7	+4.140	6.450			Firm, yellowish brown, SILT/CLAY (ALLUVIUM)
														End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **24/1/2011**
CHECKED **W.T.Chan**
DATE **26/1/2011**

REMARKS

Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.	JOB NO.	
	HOLE NO.	N3-06
	SHEET	1 of 1
DRILLHOLE LOG	DATE from	20/1/2011 to 21/1/2011

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **XY-2B**	**N 833792.633** **E 826647.712**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.650** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
20.01.11	PX								1	+10.150	0.500			Very stiff, yellowish brown, slightly sandy, SILT/CLAY (ALLUVIUM)
	1.50 PX HX								2	+9.150	1.500			
				100						+8.350	2.300			Grey and yellowish brown, subrounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
									T2-101	+7.850	2.800			
										+7.650	3.000			Yellowish brown and light greyish brown, silty, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
									3 4	+7.200	3.450			
20.01.11 21.01.11										+6.150	4.500			
									5 6	+5.700	4.950			
	6.00 HX							(s)	7	+4.650	6.000			
21.01.11										+4.200	6.450			Yellowish brown, subrounded GRAVEL of rock fragments (ALLUVIUM)
														End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample (PS)
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**

DATE **24/1/2011**

CHECKED **W.T.Chan**

DATE **26/1/2011**

REMARKS

Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **N4-01**
SHEET **1** of **1**
DATE from **22/1/2011** to **22/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-02**	**N 833806.421** **E 826619.241**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.790** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
22.01.11	PX									+10.790	0.000			Brown, silty, fine SAND with some angular fine gravel of rock and carbon fragments (FILL)
									1 Inspection Pit 1	+10.290	0.500			
									2 2	+9.290	1.500			Yellowish brown, slightly silty, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
	3.00 PX / HX													
									3 4 4	+7.790	3.000			
										+7.340	3.450			
										+6.290	4.500			
	5.00 HX								5 6 6	+5.840	4.950			
										+5.790	5.000			Grey, brown and yellowish brown, subrounded to rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
				100					T2-101					
									7 7	+4.790	6.000			
22.01.11										+4.340	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **24/1/2011**
CHECKED **W.T.Chan**
DATE **26/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE I.V. XRL 823A.GPJ STANDARD.GDT 10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **O-01**
SHEET **1** of **1**
DATE from **26/1/2011** to **26/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-11**	**N 833865.620** **E 826578.812**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.530** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
26.01.11	PX									+10.530	0.000			Brown, very silty, fine to coarse SAND with some gravel of rock fragments and occasional carbon fragments (FILL)
									1 Inspection Pit 1	+10.030	0.500			
	1.50 PX HX								2 2	+9.030	1.500			
										+8.830	1.700			Yellowish brown, subrounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
				75					T2-101	+8.430	2.100			Yellowish brown, silty, fine to coarse SAND with rounded gravel of rock fragments (ALLUVIUM)
										+7.530	3.000			
									3 4 4	+7.080	3.450			
										+6.730	3.800			Yellowish brown, subrounded GRAVEL of rock fragments (ALLUVIUM)
				75					T2-101	+6.330	4.200			Yellowish brown, silty, fine to coarse SAND with subrounded gravel of rock fragments (ALLUVIUM)
										+6.030	4.500			
								(s)	5 6 6	+5.580	4.950			
	6.00 HX								7 7	+4.530	6.000			
26.01.11										+4.080	6.450			Brown, subangular GRAVEL to COBBLE of rock fragments (ALLUVIUM)
														End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 5.50m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **O-02**
SHEET **1** of **1**
DATE from **26/1/2011** to **26/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833885.650 E 826560.335**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.890** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
26.01.11	PX								1 Inspection Pit 1	+10.890	0.000			Greyish brown and brown, silty, fine to coarse SAND with some angular gravel of rock and tile fragments (FILL)
										+10.390	0.500			
									2 2	+9.390	1.500			Brown, silty, fine tocoarse SAND with occasional carbon fragments (FILL)
	3.00 PX / HX								3 4	+7.890	3.000			
										+7.440	3.450			
										+7.390	3.500			Stiff, brown, sandy SILT/CLAY (ALLUVIUM)
									5 6	+6.390	4.500			
										+5.940	4.950			
	6.00 HX							(s)	7 8	+4.890	6.000			Yellowish brown, silty, fine to coarse SAND (ALLUVIUM)
26.01.11										+4.440	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-01**
SHEET **1** of **1**
DATE from **28/1/2011** to **28/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833701.633 E 826685.421**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.790** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
28.01.11	PX									+10.790	0.000			Brown, very silty, fine to coarse SAND with some gravel of rock fragments (FILL)
									1 Inspection Pit 2	+10.290	0.500			Firm, brown, sandy, clayey, SILT with some subrounded gravel of rock fragments (ALLUVIUM)
										+9.290	1.500			
	3.00 PX HX								3 4	+7.790	3.000			Yellowish brown, fine to coarse SAND with many subrounded gravel of rock fragments (ALLUVIUM)
										+7.340	3.450			
									5 6	+6.290	4.500			
										+5.840	4.950			
	6.00 HX							(s)	7 8	+4.790	6.000		V	Extremely weak, brown, spotted black, completely decomposed TUFF (Firm, slightly sandy SILT)
28.01.11										+4.340	6.450			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-02**
SHEET **1** of **1**
DATE from **28/1/2011** to **28/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833717.247 E 826692.623**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.900** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
28.01.11	PX									+10.900	0.000			Dark brown, very silty, fine to coarse SAND with some angular gravel of rock fragements (FILL)
									1 Inspection Pit 2	+10.400	0.500			Firm, brown, sandy clayey SILT (ALLUVIUM)
										+9.400	1.500			
	3.00 PX HX									+7.900	3.000			
									3 4	+7.450	3.450			Yellowish brown and grey, silty, fine SAND (ALLUVIUM)
										+6.900	4.000			
										+6.400	4.500			Brown and yellowish brown, silty, clayey, fine to coarse SAND with some subrounded gravel of rock and quartz fragments (ALLUVIUM)
									5 6	+5.950	4.950			
	6.00 HX							(s)		+4.900	6.000			
28.01.11									7 8	+4.450	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

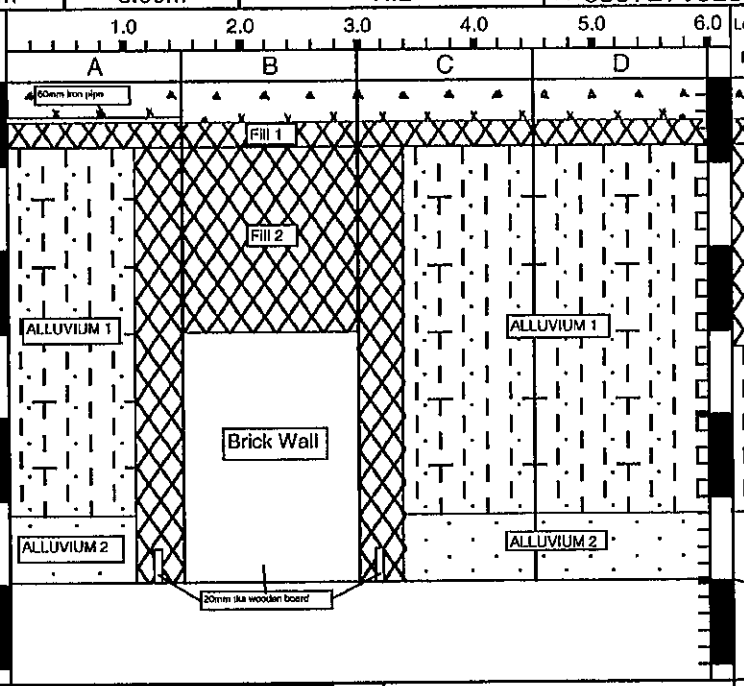
Shun Bong Drilling Engineering (HK) Ltd.

Trial Pit Log

Location: XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels

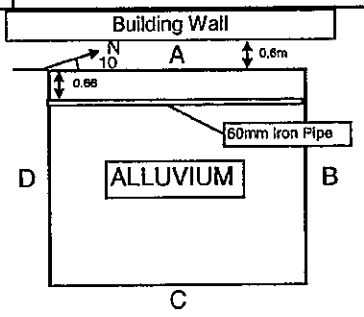
Plan Size	Depth	Water Level below G.L.	Coordinates	Ground Level	Excavation Date
1.5m x 1.5m	3.00m	NIL	N 833727.823 E 826686.683		5/2/2010 - 8/2/2010

Sample & In-situ test	Depth (m)	Legend	Grade	Description
		FACE		Grey, CONCRETE (CONCRETE SLAB)
•	0.50			Fill 1: Yellowish brown and dark brown, fine to coarse SAND with angular and subrounded gravel to cobble of rock fragments with hydrocarbon odour (FILL) Fill 2: Brown, silty, clayey, fine to coarse SAND with some angular gravel of rock fragments with hydrocarbon odour(FILL)
•	1.00			
	1.50			
	2.00			ALLUVIUM 1: Firm to stiff, brown and yellowish brown, slightly sandy clayey SILT with hydrocarbon odour (ALLUVIUM)
	2.50			
•	3.00			ALLUVIUM 2: Dark greyish brown, fine to medium SAND with hydrocarbon odour (ALLUVIUM)
	3.50			End of Trial Pit at the depth 3.00m

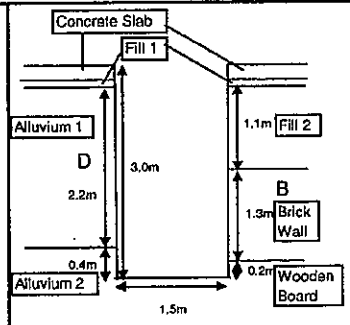


Legend

- Insitu Density Test
- Undisturbed Soil Sample
- Block Sample
- Bulk Sample



Plan (Not to scale)



Section (Not to scale)

Remarks:

Bulk Sample were taken at 0.5m, 1.5m & 3.0m

Logged by:	H.C.Yeung
Date:	29/1/2011
Checked by:	W.T.Chan
Date:	17/2/2011

TRIAL PIT NO.

TP03

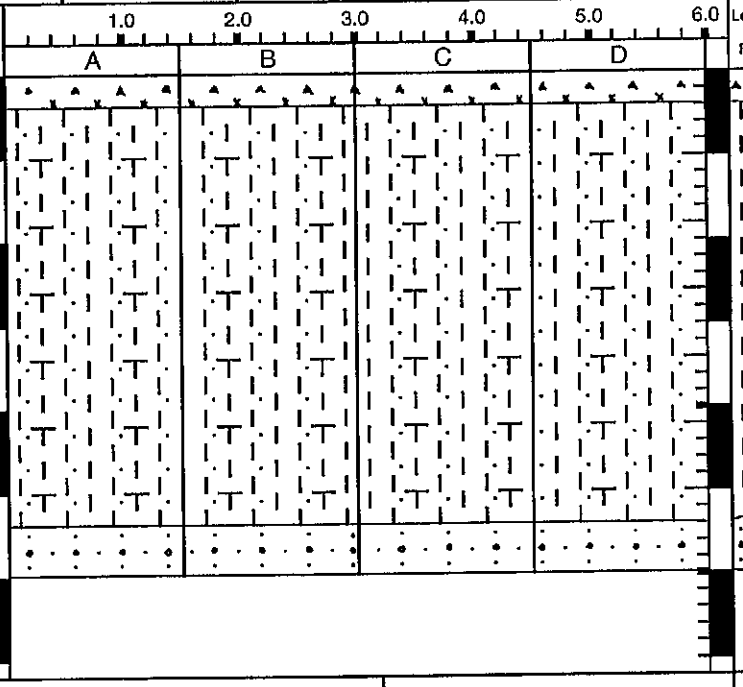
Shun Bong Drilling Engineering (HK) Ltd.

Trial Pit Log

Location: XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels

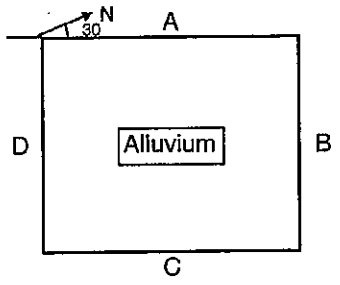
Plan Size	Depth	Water Level below G.L.	Coordinates		Ground Level	Excavation Date
1.5m x 1.5m	3.00m	NIL	N 833714.421	E 826683.660		5/2/2010 - 8/2/2010

Sample & In-situ test	Depth (m)	Legend FACE	Grade	Description
				Grey, CONCRETE (CONCRETE SLAB)
•	0.50			Firm to stiff, brown and grey, sandy, clayey SILT (ALLUVIUM)
	1.00			
•	1.50			
	2.00			
	2.50			Yellowish brown, fine to coarse SAND with rounded gravel to cobble of rock fragments (ALLUVIUM)
•	3.00			End of Trial Pit at the depth 3.00m
	3.50			

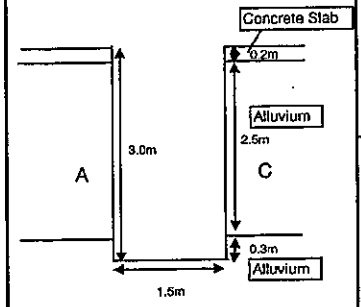


Legend

- Insitu Density Test
- Undisturbed Soil Sample
- Block Sample
- Bulk Sample



Plan (Not to scale)



Section (Not to scale)

Remarks:
Bulk Sample were taken at 0.5m, 1.5m & 3.0m

Logged by:	H.C.Yeung
Date:	29/1/2011
Checked by:	W.T.Chan
Date:	17/2/2011

TRIAL PIT NO.

TP04

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-05**
SHEET **1** of **1**
DATE from **31/1/2011** to **31/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833740.401 E 826674.726**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+11.120** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
31.01.11	PX								1 Inspection Pit 1	+11.120	0.000			Firm, brown, slightly sandy, clayey SILT (ALLUVIUM)
										+10.620	0.500			
									2	+9.620	1.500			
	3.00 PX / HX									+8.120	3.000			Yellowish brown, silty, clayey, fine to coarse SAND with some rounded gravel of rock and quartz fragments (ALLUVIUM)
									3 4	+7.670	3.450			
										+6.620	4.500			
									5 6	+6.170	4.950			
	6.00 HX							(s)		+5.120	6.000			
31.01.11									7 8	+4.670	6.450			End of drillhole at 6.45

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **22/2/2011**
CHECKED **W.T.Chan**
DATE **23/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-06**
SHEET **1** of **1**
DATE from **31/1/2011** to **31/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833734.321 E 826664.643**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.900** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
31.01.11	PX								1 Inspection Pit 1	+10.900	0.000			Brown, silty, fine to coarse SAND (ALLUVIUM)
										+10.400	0.500			
									2	+9.400	1.500			Stiff, greyish brown, sandy SILT (ALLUVIUM)
	3.00 PX HX								3 4	+7.900	3.000			Yellowish brown, silty, clayey, fine to coarse SAND with some rounded gravel of rock and quartz fragments (ALLUVIUM)
										+7.450	3.450			
									5	+6.400	4.500			
									6	+5.950	4.950			
	6.00 HX								7	+4.900	6.000			
31.01.11								(s)		+4.700	6.200			Yellowish brown, rounded GRAVEL of rock fragments (ALLUVIUM)
														End of drillhole at 6.20m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **22/2/2011**
CHECKED **W.T.Chan**
DATE **23/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

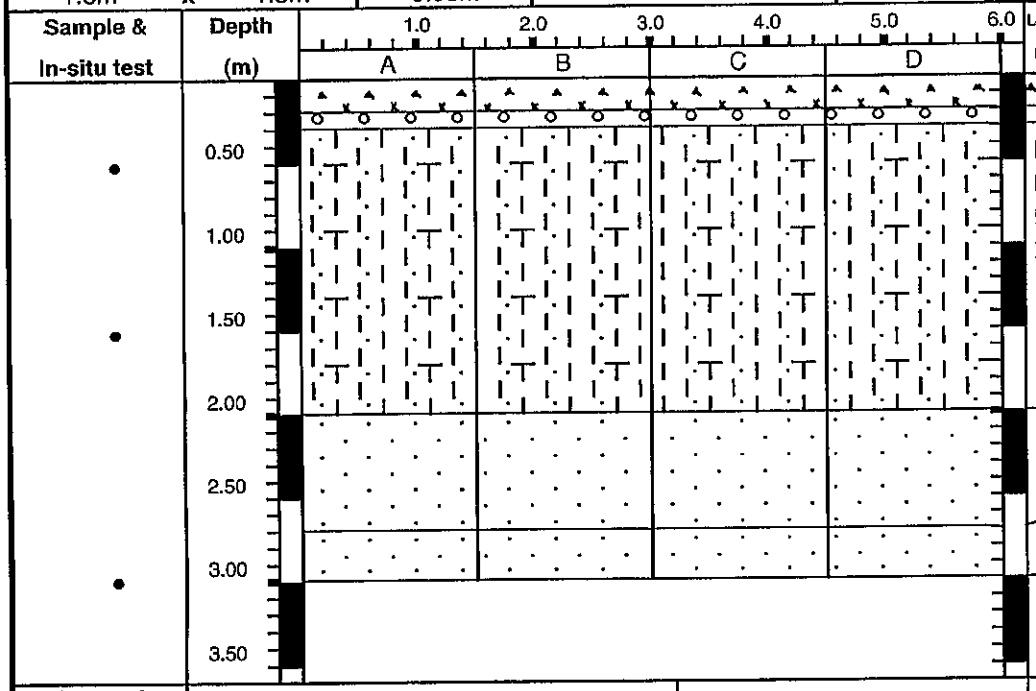
Shun Bong Drilling Engineering (HK) Ltd.

Trial Pit Log

Location: XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels

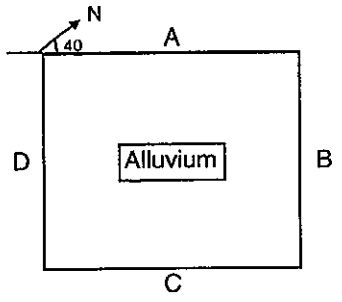
Plan Size	Depth	Water Level below G.L.	Coordinates		Ground Level	Excavation Date
1.5m x 1.5m	3.00m	NIL	N 833707.152	E 826667.228		5/2/2010 - 8/2/2010

Sample & In-situ test	Depth (m)	Legend FACE	Grade	Description
				Grey, CONCRETE (CONCRETE SLAB)
•	0.50			Yellowish brown, rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
	1.00			Firm to stiff, brown and grey, sandy clayey SILT (ALLUVIUM)
•	1.50			
	2.00			Yellowish brown, fine to coarse SAND (ALLUVIUM)
	2.50			Yellowish brown and greyish brown, coarse SAND with occasional rounded GRAVEL rock fragments (ALLUVIUM)
•	3.00			End of Trial Pit at the depth 3.00m
	3.50			

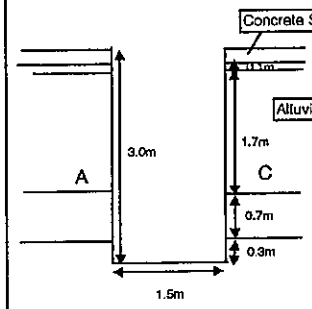


Legend

- Insitu Density Test
- Undisturbed Soil Sample
- Block Sample
- Bulk Sample



Plan (Not to scale)



Section (Not to scale)

Remarks:
Bulk Sample were taken at 0.5m, 1.5m & 3.0m

Logged by:	H.C.Yeung
Date:	29/1/2011
Checked by:	W.T.Chan
Date:	17/2/2011

TRIAL PIT NO.

TP07

1 of 1

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-08**
SHEET **1** of **1**
DATE from **17/6/2011** to **17/6/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833725.125 E 826693.139**	ROCK CORE BIT
Rig & No. **SB05**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.990** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
17.06.11	PX								1 Inspection Pit 2 3	+10.990	0.000			Reddish brown, very silty, fine to coarse SAND with some gravel (FILL)
									1	+10.490	0.500			
									2	+9.990	1.000			
									3	+9.490	1.500			
	3.00 PX HX									+7.990	3.000			
									4 5					Brown and grey, slightly sandy GRAVEL with matrix of silty clay (ALLUVIUM)
									5	+7.490	3.500			
										+6.490	4.500			
									6 7					Greenish brown to yellowish brown, sandy SILT with many gravel of rock and quartz fragments (ALLUVIUM)
									7	+5.990	5.000			
	6.00 HX							(s)		+4.990	6.000			
17.06.11									8 9					
									9	+4.490	6.500			End of drillhole at 6.50m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **18/6/2011**
CHECKED **W.T.Chan**
DATE **20/6/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_15/8/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-09**
SHEET **1** of **1**
DATE from **16/6/2011** to **16/6/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833721.611 E 826694.642**	ROCK CORE BIT
Rig & No. **SB05**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.820** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
16.06.11	PX								1 Inspection Pit 2 3	+10.820	0.000			Greyish brown, spotted black and red, sandy SILT with some gravel (FILL)
									1	+10.320	0.500			
									2	+9.820	1.000			
									3	+9.320	1.500			Reddish brown, slightly sandy, SILT/CLAY with some gravel of rock and quartz fragments (ALLUVIUM)
	3.00 PX HX								4 5	+7.820	3.000			Yellowish brown, slightly silty SAND (ALLUVIUM)
									5	+7.320	3.500			
									6 7	+6.320	4.500			Greenish brown, sandy SILT with some gravel of quartz fragments (ALLUVIUM)
									7	+5.820	5.000			
	6.00 HX							(s)	8 9	+4.820	6.000			
16.06.11									9	+4.320	6.500			End of drillhole at 6.50m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **18/6/2011**
CHECKED **W.T.Chan**
DATE **20/6/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_15/8/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **P-10**
SHEET **1** of **1**
DATE from **17/6/2011** to **17/6/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833719.306 E 826695.258**	ROCK CORE BIT
Rig & No. **SB05**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **WATER**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.850** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
17.06.11	PX								1 Inspection Pit 2 3	+10.850	0.000			Reddish brown, spotted red and black, very silty, gravelly SAND with occasional brick fragments (FILL)
									1	+10.350	0.500			
									2	+9.850	1.000			
									3	+9.350	1.500			
														Brown, very silty, SAND (ALLUVIUM)
	3.00 PX HX									+7.850	3.000			
									4 5					Brown, yellowish brown and black, slightly silty, sandy GRAVEL (ALLUVIUM)
									5	+7.350	3.500			
										+6.350	4.500			
									6 7					Yellowish brown, spotted grey, sandy SILT (ALLUVIUM)
									7	+5.850	5.000			
										+5.600	5.250			Extremely weak, light yellowish grey, mottled white, completely decomposed TUFF (Slightly sandy SILT)
	6.00 HX							(s)		+4.850	6.000		V	
17.06.11									8 9					
									9	+4.350	6.500			End of drillhole at 6.50m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **18/6/2011**
CHECKED **W.T.Chan**
DATE **20/6/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_15/8/11

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHQ01**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826683.81**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR122**	**N 833756.37**	DATE FROM **17/02/2009** TO **17/02/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+11.63** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17/02/2009	PX	08:00	100					1	+11.63	0.00			Firm, reddish brown, spotted white, sandy clayey SILT with some angular fine to coarse gravel sized moderately decomposed tuff fragments. (FILL)
			100					2 INSPECTION PIT		0.50			
			100							0.95			From 0.95m to 1.50m : Greyish brown.
			100					3	+10.13	1.50			Stiff, light yellowish brown, spotted white, sandy clayey SILT with occasional subangular fine to medium gavel sized highly decomposed tuff ash fine gravel sized quartz fragments. (ALLUVIUM)
			100					4		1.95			
										2.40			
	PX 3.00									3.00			
	HX		75				16 blo	5					
			100				65 blo	6	+8.18	3.45			Reddish brown, spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
										3.90			
			0				100 blo	7		4.50			From 4.50m to 4.95m : No core recovered.
			89				55 blo	8		4.95			From 4.95m to 5.40m : Light yellowish brown.
			100				34 blo	9	+6.23	5.40			Dark yellowish brown, spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			100				35 blo	10	+5.78	5.85		V	Extremely weak, dark brown, spotted and mottled white, completely decomposed porphyritic, fine grained GRANODIORITE. (Stiff, sandy SILT)
17/02/2009	HX 6.30	18:00							+5.33	6.30			Hole completed at 6.30m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Y.K. Lee**

DATE **18/02/2009**

CHECKED **James Lu**

DATE **19/02/2009**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHQ02**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826688.32**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR122**	**N 833772.40**	DATE FROM **12/02/2009** TO **14/02/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+11.77** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 12/02/2009	PX	08:00							+11.77	0.00			Firm, brown spotted white, sandy clayey SILT with some angular fine to coarse gravel sized moderately decomposed tuff fragments. (FILL)
			180					1		0.60			
			180					2		0.95			
			180					3 INSPECTION PIT	+10.27	1.50			Stiff, yellowish brown spotted white, sandy clayey SILT with occasional subangular fine to medium gravel sized highly decomposed tuff and quartz fragments. (ALLUVIUM)
		Dry at 18:00	180					4		1.95			
12/02/2009 14/02/2009		Dry at 08:00								2.40			
			50				35 blo	5	+8.77	3.00			Reddish brown spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			180				67 blo		+8.32	3.45			Yellowish brown spotted white, clayey silty fine to coarse SAND with some subangular fine to medium gravel sized moderately decomposed and quartz fragments. (FILL)
								6		3.90			
			0				39 blo	7		4.50			From 4.50m to 4.95m : No core recovered.
			50				76 blo		+6.82	4.95			Light yellowish brown spotted white, clayey silty fine to coarse SAND with occasional subangular fine to medium gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
			180				61 blo	8 9		5.40			
6 14/02/2009	PX 6.30	Dry at 18:00	180				56 blo		+5.92	5.85		V	From 5.40m to 5.85m : Dark yellowish brown with some subangular fine to coarse gravel.
								10	+5.47	6.30			Extremely weak, greyish brown spotted and mottled white, completely decomposed porphyritic, fine grained GRANODIORITE. (Stiff, sandy SILT)
													Hole completed at 6.30m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	Y.K. Lee
DATE	16/02/2009
CHECKED	James Lu
DATE	17/02/2009

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHQ03**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826674.48**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR112**	**N 833778.64**	DATE FROM **12/02/2009** TO **13/02/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+11.77** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
0 12/02/2009	PX	08:00							+11.77	0.00			Firm, reddish brown spotted white, sandy clayey SILT with some angular fine to medium gravel sized moderately decomposed tuff fragments. (FILL)
1			100					1 INSPECTION PIT		0.50			
			100					2		0.95			
			100					3	+10.27	1.50			Stiff, greyish brown spotted white, sandy clayey SILT with occasional subangular fine to medium gravel sized quartz fragments. (COLLUVIUM)
2		Dry at 18:00	100					4		1.95			
12/02/2009 13/02/2009		Dry at 08:00								2.40			
3			40				34 bls	5	+8.77	3.00			Brownish grey spotted white, slightly clayey silty fine to coarse SAND with some subangular fine to medium gravel sized moderately decomposed occasional quartz fragments. (ALLUVIUM)
			100				57 bls	6	+8.32	3.45			Light yellowish brown spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff and quartz fragments. (ALLUVIUM)
4										3.90			
			0				33 bls	7		4.50			From 4.50m to 6.00m : Brownish brown.
5			100				19 bls	8		4.95			
										5.40			
6			90				73 bls	9	+5.77	6.00			Dark yellowish brown spotted white, clayey silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			100				50 bls		+5.32	6.45		V	Extremely weak, light yellowish brown spotted and mottled white, completely decomposed porphyrite, fine grained GRANODIORITE. (Stiff, sandy SILT)
13/02/2009 7	PX 6.90	Dry at 18:00						10	+4.87	6.90			Hole completed at 6.90m.
8													
9													
10													

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	D.Y. Yip
DATE	14/01/2009
CHECKED	James Lu
DATE	16/02/2009

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHQ04**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826664.53**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR122**	**N 833765.61**	DATE FROM **17/02/2009** TO **17/02/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+11.80** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17/02/2009	PX	08:00	100					1	+11.80	0.00			Firm, reddish brown spotted white, sandy clayey SILT with some angular fine to coarse gravel sized moderately decomposed tuff fragments. (FILL)
			100					2 INSPECTION PIT		0.50			
			100					3		0.95			
			100							1.40			From 1.50m to 1.95m : Brownish grey.
			100					4	+9.85	1.95			Stiff, greyish brown spotted white, sandy clayey SILT with occasional subangular fine to medium gravel sized highly decomposed tuff and quartz fragments. (ALLUVIUM)
			56				14 blo	5		2.40			
			100				32 blo			3.00			From 3.00m to 3.45m : Yellowish brown.
									+8.35	3.45			Brownish grey spotted white, clayey silty fine to coarse SAND with occasional subangular fine to medium gravel sized quartz fragments. (ALLUVIUM)
								6		3.90			
			0				28 blo	7		4.50			
			34				28 blo		+6.85	4.95			Brownish grey spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			100				12 blo	8	+6.40	5.40			Stiff, dark yellowish brown spotted white, clayey silty fine to coarse SAND with some subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			100				72 blo	9		5.85			
			100				13 blo	10	+5.50	6.30			Extremely weak, yellowish brown spotted and mottled white, completely decomposed porphyritic, fine grained GRANODIORITE. (Stiff, sandy SILT)
			100				18 blo	11		6.75			From 6.75m to 7.20m : Light yellowish brown.
17/02/2009	PX 7.20	Dry at 18:00						12	+4.60	7.20			Hole completed at 7.20m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED	**Y.K. Lee**
DATE	**18/02/2009**
CHECKED	**James Lu**
DATE	**19/02/2009**

REMARKS

GEOTECHNICS & CONCRETE ENGG. (H.K.) LTD.

GROUND INVESTIGATION DEPARTMENT

HOLE NO. **2108/XRL/EDHQ05**

SHEET 1 OF 1

DRILLHOLE RECORD

CONTRACT NO. NEX/2108

PROJECT Contract NEX/2108 Ground Investigation Works for Express Rail Link

METHOD **Rotary Cored**	CO-ORDINATES **E 826654.64 N 833769.27**	WORKS ORDER NO. **GCE/2008/001/SI/R**
MACHINE & NO. **DR122**		DATE FROM **18/02/2009** TO **18/02/2009**
FLUSHING MEDIUM	ORIENTATION **Vertical**	GROUND LEVEL **+11.70** mPD

Drilling Progress	Casing size	Water level (m) & Time	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
18/02/2009	PX	08:00							+11.70	0.00			Firm, reddish brown, spotted white, sandy clayey SILT with some angular fine to medium gravel sized moderately decomposed tuff fragments. (FILL)
			100					1		0.50			
			100					2 INSPECTION PIT		0.95			From 0.95m to 1.50m : Brownish red.
			100					3	+10.20	1.50			Stiff, yellowish brown, spotted white, sandy clayey SILT with occasional subangular fine to medium gavel sized highly decomposed tuff and quartz fragments. (ALLUVIUM)
			100					4		1.95			From 1.50m to 1.95m : Brownish grey.
	PX 2.40									2.40			
	HX									3.00			
			75				18 blo	5					
			100				48 blo	6	+8.25	3.45			Brownish grey, spotted white, clayey silty fine to coarse SAND with much subangular to subrounded fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
										3.90			
			0				61 blo	7		4.50			
			100				38 blo	8	+6.75	4.95			Soft to fine, light yellowish brown, spotted white, sandy silty CLAY. (ALLUVIUM)
			100				77 blo	9	+6.30	5.40			Yellowish brown, spotted white, clayey silty fine to coarse SAND with much subangular fine to coarse gravel sized moderately decomposed tuff fragments. (ALLUVIUM)
			100				49 blo	10		5.85			
			100				74 blo	11		6.30			From 6.30m to 6.75m : Light yellowish brown.
			100				52 blo	12	+4.95	6.75		V	Extremely weak, light greyish brown, spotted and mottled white, completely decomposed porphyritic, fine grained GRANODIORITE. (Stiff, sandy SILT)
18/02/2009	HX 7.20	18:00							+4.50	7.20			Hole completed at 7.20m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- SPT LINER SAMPLE
- U76 UNDISTURBED SAMPLE
- U100 UNDISTURBED SAMPLE
- MAZIER SAMPLE
- PISTON SAMPLE
- WATER SAMPLE
- PIEZOMETER TIP
- STANDPIPE
- STANDARD PENETRATION TEST
- PERMEABILITY TEST
- IMPRESSION PACKER TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST

LOGGED **Y.K. Lee**

DATE **19/02/2009**

CHECKED **James Lu**

DATE **20/02/2009**

REMARKS

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **Q-06**
SHEET **1** of **1**
DATE from **27/1/2011** to **27/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833748.153 E 826701.213**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+11.650** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
27.01.11	PX								1 Inspection Pit 1	+11.650	0.000			Dark brown, slightly silty, fine to coarse SAND with angular gravel of rock fragments (FILL)
										+11.150	0.500			
									2	+10.150	1.500			Stiff, reddish brown, sandy, clayey SILT (ALLUVIUM)
	3.00 PX HX								3 4	+8.650	3.000			
										+8.200	3.450			
										+7.150	4.500			Yellowish brown, slightly silty, clayey, fine to coarse SAND with rounded gravel of quartz fragments (ALLUVIUM)
									5 6	+6.700	4.950			
	6.00 HX							(s)		+5.650	6.000			
27.01.11									7 8	+5.200	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 5.50m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **Q-07**
SHEET **1** of **1**
DATE from **29/1/2011** to **29/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833790.643 E 826683.812**	ROCK CORE BIT
Rig & No. **SB-11**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+11.870** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
29.01.11	PX								1 Inspection Pit 1	+11.870	0.000			Grey and greyish brown, sandy, clayey SILT with some gravel of rock fragments (ALLUVIUM)
										+11.370	0.500			
									2	+10.370	1.500			
	3.00 PX HX								3 4	+8.870	3.000			Stiff, yellowish brown, SILT/CLAY (ALLUVIUM)
										+8.420	3.450			
									5 6	+7.370	4.500			Brown and pink, silty, fine to coarse SAND with some subrounded and subangular gravel of rock and quartz fragments (ALLUVIUM)
										+6.920	4.950			
	6.00 HX							(s)	7	+5.870	6.000			Brown and grey, subrounded GRAVEL of rock fragments (ALLUVIUM)
29.01.11										+5.420	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **29/1/2011**
CHECKED **W.T.Chan**
DATE **11/2/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV XRL 823A.GPJ STANDARD.GDT 10/3/11

Shun Bong Drilling Engineering (HK) Ltd.	JOB NO.	
	HOLE NO.	R-01
	SHEET	1 of 1
DRILLHOLE LOG	DATE from	27/1/2011 to 27/1/2011

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-11**	**N 833845.875** **E 826588.633**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.650** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
27.01.11	PX								1 Inspection Pit 1	+10.650	0.000			Stiff, grey and brown, sandy SILT/CLAY with some rounded gravel of rock fragments (ALLUVIUM)
										+10.150	0.500			
									2 2	+9.150	1.500			
										+9.050	1.600			Yellowish brown, subrounded and rounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
				86					T2-101					
	3.00 PX HX									+7.650	3.000			
									4 3 4	+7.200	3.450			Yellowish brown, silty, fine to coarse SAND with subrounded gravel of rock fragments (ALLUVIUM)
										+6.950	3.700			Yellowish brown, subrounded and rounded GRAVEL of rock fragments (ALLUVIUM)
				63					T2-101					
									5 5	+6.150	4.500			Yellowish brown and grey, subrounded GRAVEL to COBBLE of rock fragments (ALLUVIUM)
										+5.450	5.200			
				88					T2-101					
	6.00 HX							(s)	6 6	+4.650	6.000			
27.01.11										+4.200	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**

DATE **27/1/2011**

CHECKED **W.T.Chan**

DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **R-02**
SHEET **1** of **1**
DATE from **24/1/2011** to **25/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833832.528 E 826602.236**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.620** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
24.01.11	PX								1 Inspection Pit 1	+10.620	0.000			Greyish brown and brown, silty, fine to coarse SAND with some angular gravel of rock and carbon fragments (FILL)
										+10.120	0.500			
									2	+9.120	1.500			Yellowish brown, silty, clayey, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
	3.00 PX / HX								3 4	+7.620	3.000			
										+7.170	3.450			
									5 6	+6.120	4.500			
										+5.670	4.950			
	6.00 HX													
24.01.11								(s)		+4.620	6.000			
25.01.11									7 8					Light grey, very silty, fine to coarse SAND with some quartz fragments (ALLUVIUM)
25.01.11										+4.170	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **R-03**
SHEET **1** of **1**
DATE from **25/1/2011** to **25/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES **N 833837.201 E 826596.703**	ROCK CORE BIT
Rig & No. **SB-02**		HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.630** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
25.01.11	PX								1 Inspection Pit 1	+10.630	0.000			Very stiff, reddish brown and brown, sandy SILT/CLAY with occasional carbon fragments (FILL)
										+10.130	0.500			
									2	+9.130	1.500			Loose, brown and grey, silty, fine to coarse SAND with angular gravel of rock fragments (FILL)
	3.00 PX HX								3 4	+7.630	3.000			
										+7.180	3.450			
										+7.130	3.500			Yellowish brown, silty, fine to coarse SAND with many subrounded GRAVEL of rock fragments ALLUVIUM)
										+6.130	4.500			
									5 6	+5.680	4.950			
	6.00 HX							(s)		+4.630	6.000			
25.01.11									7 8	+4.180	6.450			Grey, subrounded GRAVEL of rock and quartz fragments (ALLUVIUM)
														End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LV_XRL 823A.GPJ_STANDARD.GDT_9/3/11

Shun Bong Drilling Engineering (HK) Ltd.

DRILLHOLE LOG

JOB NO.
HOLE NO. **R-04**
SHEET **1** of **1**
DATE from **22/1/2011** to **24/1/2011**

PROJECT **XRL 823a - Tai Kong Po to Tse Uk Tsuen Tunnels**

METHOD **ROTARY**	CO-ORDINATES	ROCK CORE BIT **T2-101**
Rig & No. **SB-02**	**N 833852.303** **E 826596.771**	HOLE DIA. **PX, HX**
FLUSHING MEDIUM **DRY**	ORIENTATION **VERTICAL**	REFERENCE LEVEL **+10.460** mPD

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples	Reduced Level (mPD)	Depth (m)	Legend	Grade	Description
22.01.11	PX								1 Inspection Pit 1	+10.460	0.000			Grey and brown, silty, fine to coarse SAND with occasional carbon fragments (FILL)
										+9.960	0.500			
22.01.11									2	+8.960	1.500			
24.01.11														Yellowish brown, silty, clayey, fine to coarse SAND with some rounded gravel of rock fragments (ALLUVIUM)
	3.00 PX / HX									+7.460	3.000			
									3 4	+7.010	3.450			
										+6.960	3.500			Yellowish brown, subrounded and rounded GRAVEL to COBBLE of rock fragments with matrix of silty, fine to coarse sand (ALLUVIUM)
				100					T2-101					
									5	+5.960	4.500			
										+5.510	4.950			Brown, silty, clayey, fine to coarse SAND with some quartz fragments (ALLUVIUM)
	6.00 HX							(s)		+4.460	6.000			
24.01.11									6 7	+4.010	6.450			End of drillhole at 6.45m

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample (70mm)
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe
- In-situ Vane Shear Test

LOGGED **H.C.Yeung**
DATE **27/1/2011**
CHECKED **W.T.Chan**
DATE **29/1/2011**

REMARKS

Inspection pit was excavated to 1.50m depth by hand tools
Standpipe installed at 6.00m

BOREHOLE LOG REFERENCE LIV_XRL 823A.GPJ_STANDARD.GDT_10/3/11

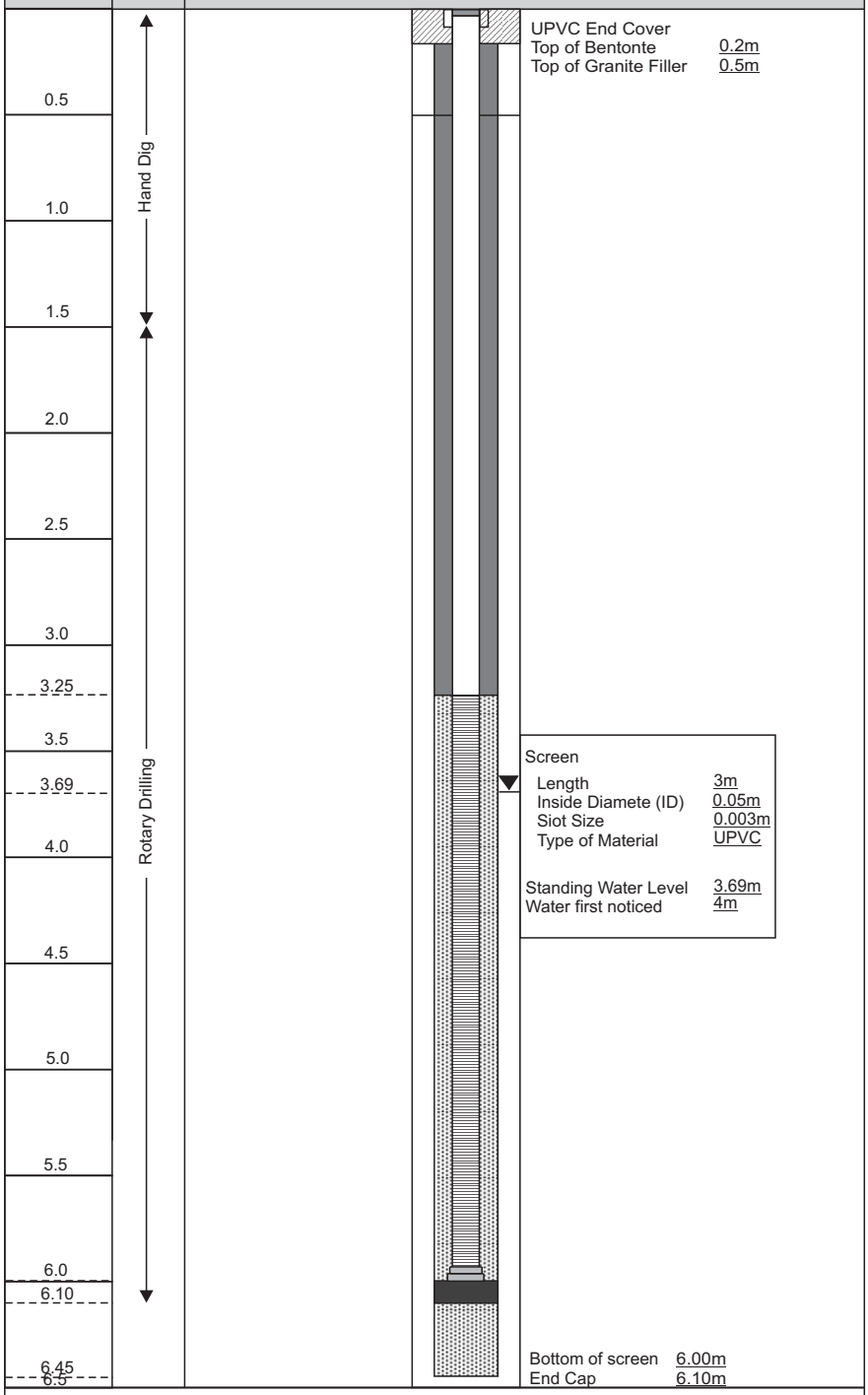
	
Drilling at open area of Site M.	Drilling at parking area of Site P.
	
Digging and shoring of trial pit inside Site P.	Drilling rig at Site N1.
	
Borehole logging and soil/rock samples collected.	Constructed groundwater wells.
	
Soil samples were collected in zipper bags for VOC testing.	Digging of inspection pit before drilling.

Annex C

Groundwater Monitoring Well Diagrams

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826609.623, N833862.451
Ground Level Elevation: + 10.65 mPD

Hole No. : N1 - 01
Installation Date :25 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.25m
Screen: 3.25 to 6.00m
Granite Pack: 0.5 to 6.00m
Gravel Pack: 6.00 to 6.10m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at N1-01

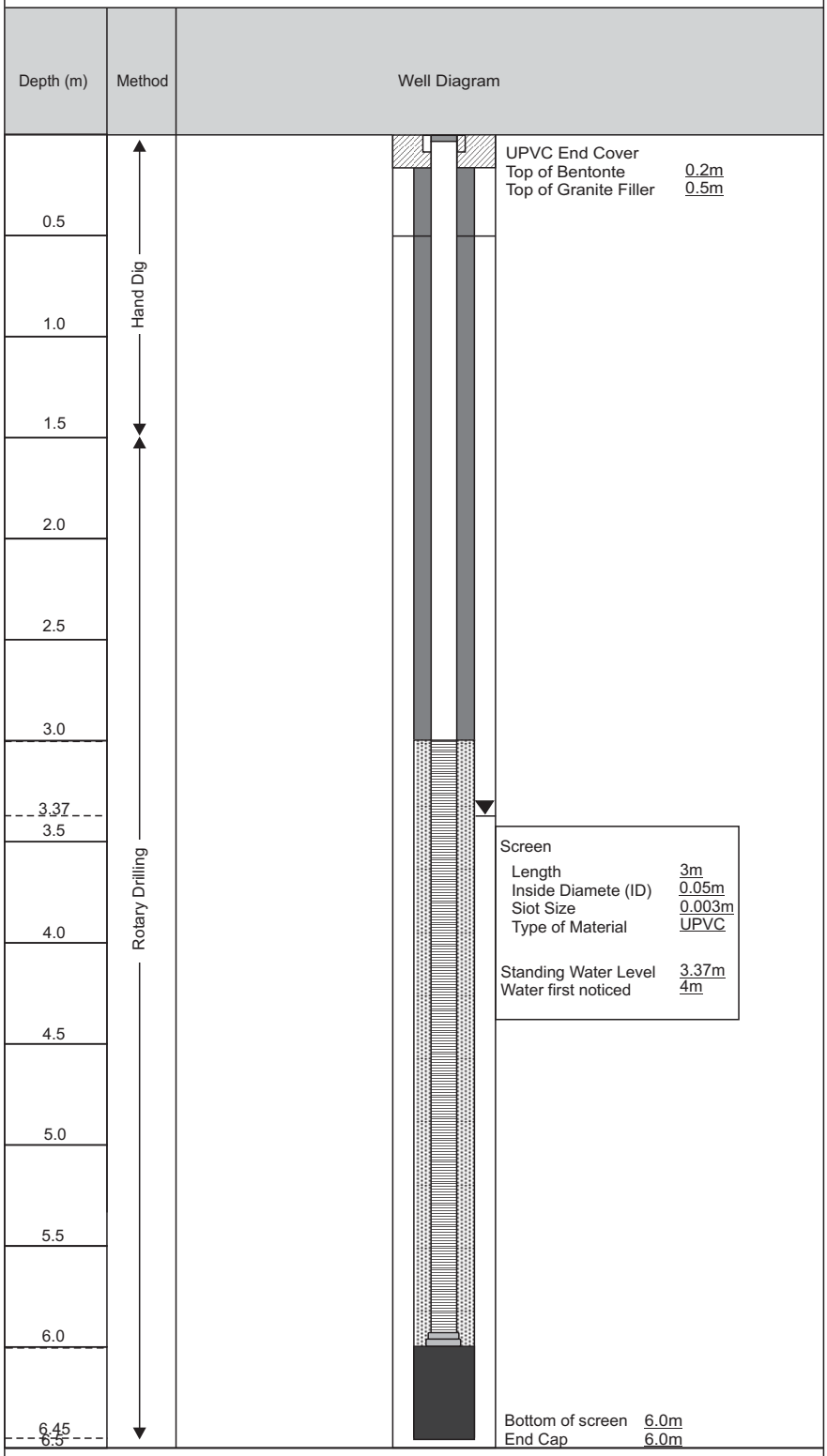
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DATE: 14/03/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826625.578, N833871.083
Ground Level Elevation: + 10.72 mPD

Hole No. : N1 - 02
Installation Date :24 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N1-02

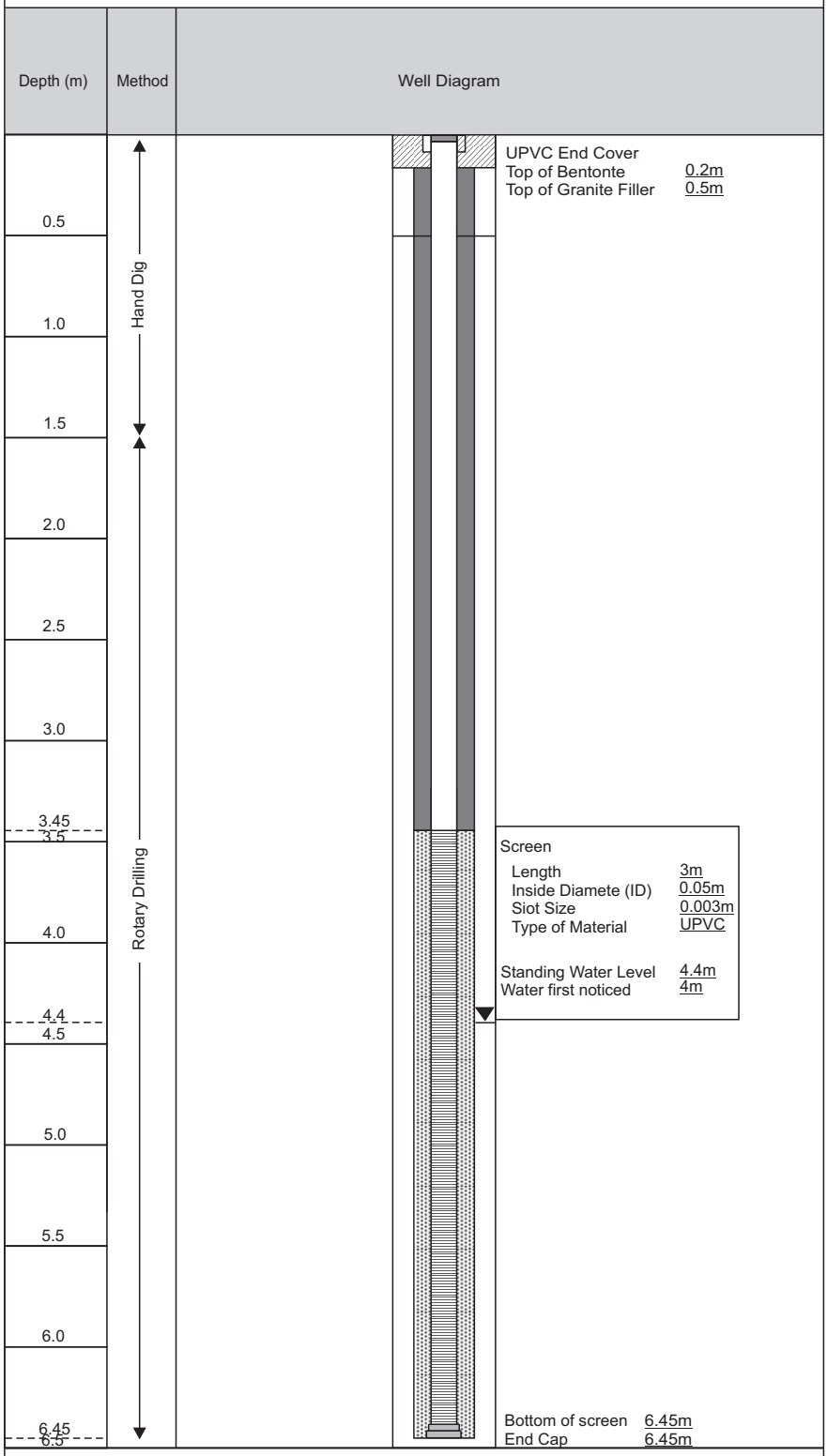
FILE: 0125309h3
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826617.823, N833829.412
Ground Level Elevation: + 10.47 mPD

Hole No. : N3 - 01
Installation Date : 18 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.45m
Screen: 3.45 to 6.45m
Granite Pack: 0.5 to 6.45m
Gravel Pack: 0m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N3-01

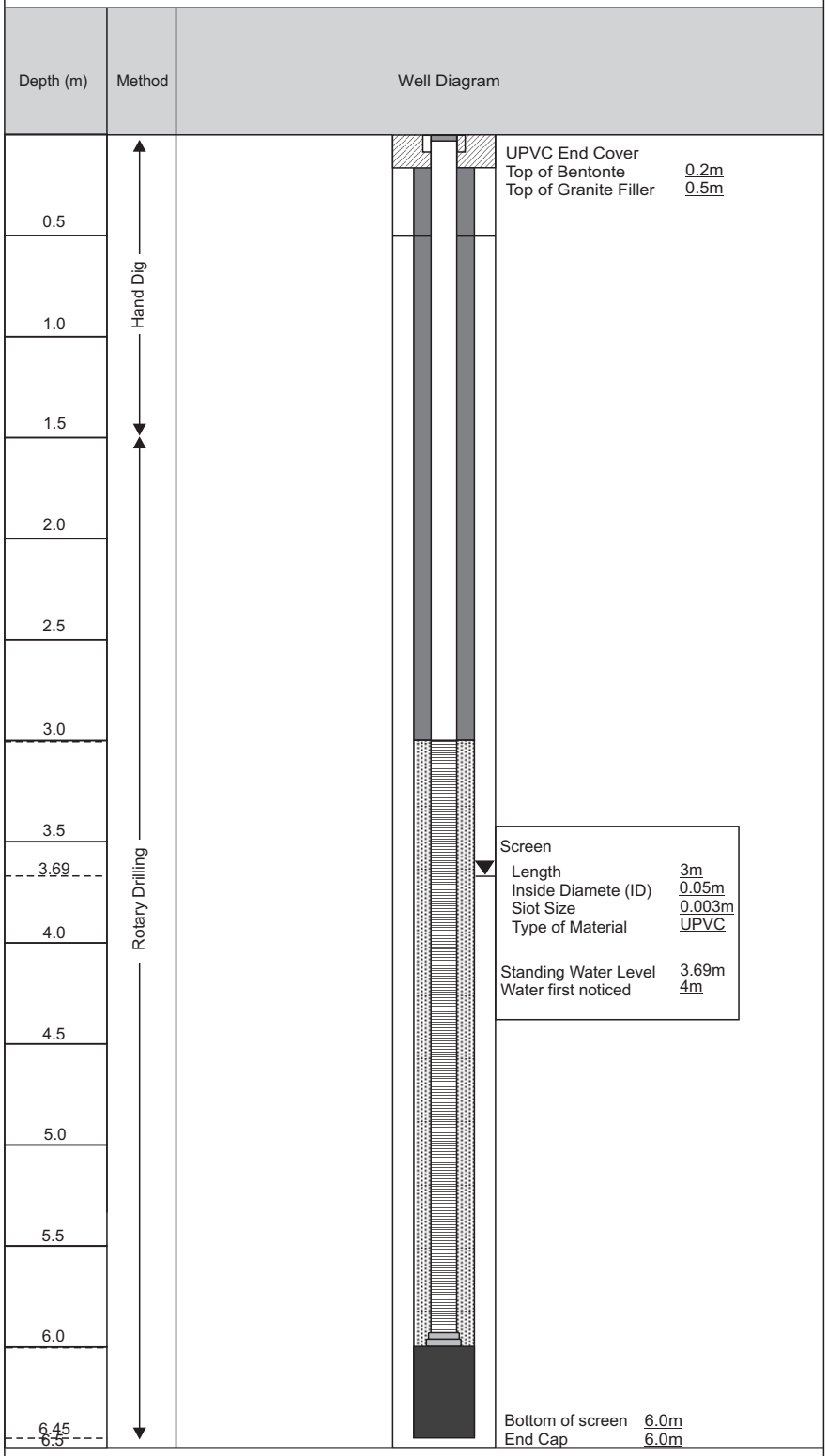
FILE: 0125309h4
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826634.552, N833821.893
Ground Level Elevation: + 10.99 mPD

Hole No. : N3 - 02
Installation Date :21 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N3-02

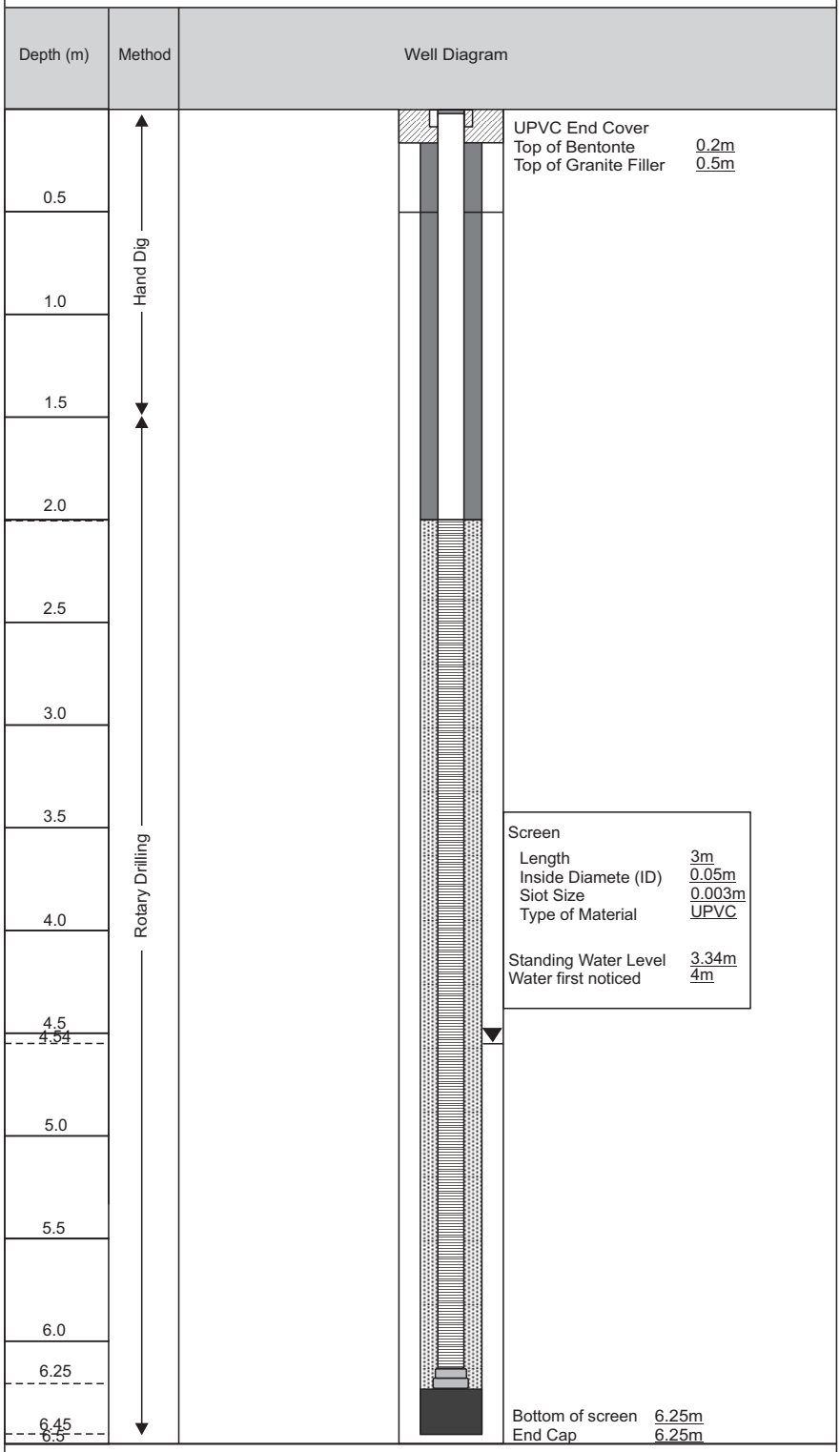
FILE: 0125309h5
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826637.461, N833804.102
Borehole gd level: 10.54 mPD
Static gd water level: 7.2 mPD

Hole No. : N3 - 03
Installation Date : 20 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 5.0m
Screen: 2.0 to 5.0m
Granite Pack: 0.5 to 5.0m
Gravel Pack: 5.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at N3-03

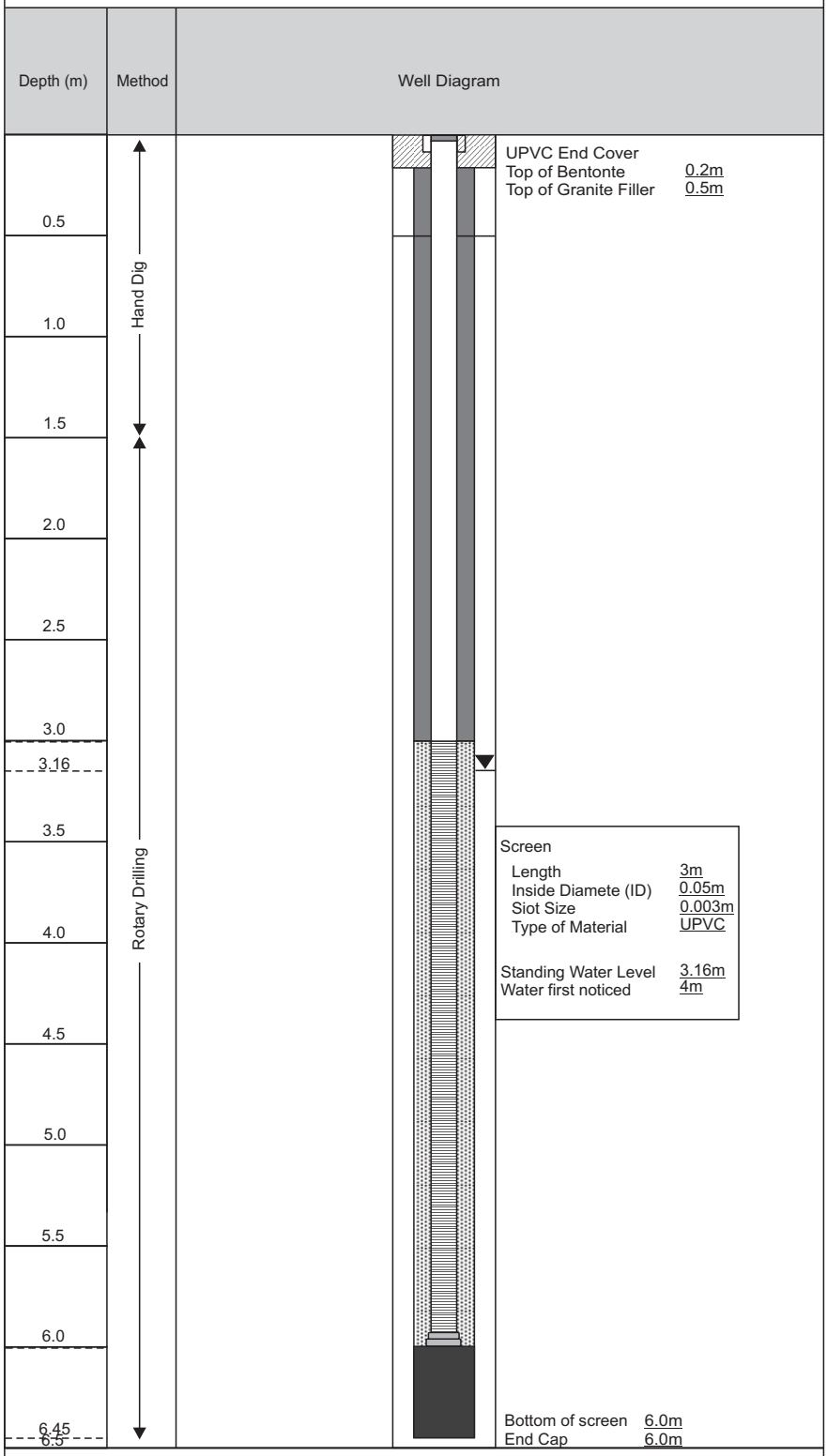
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DATE: 23/08/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826654.442, N833817.305
Ground Level Elevation: + 10.74 mPD

Hole No. : N3 - 04
Installation Date :27 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N3-04

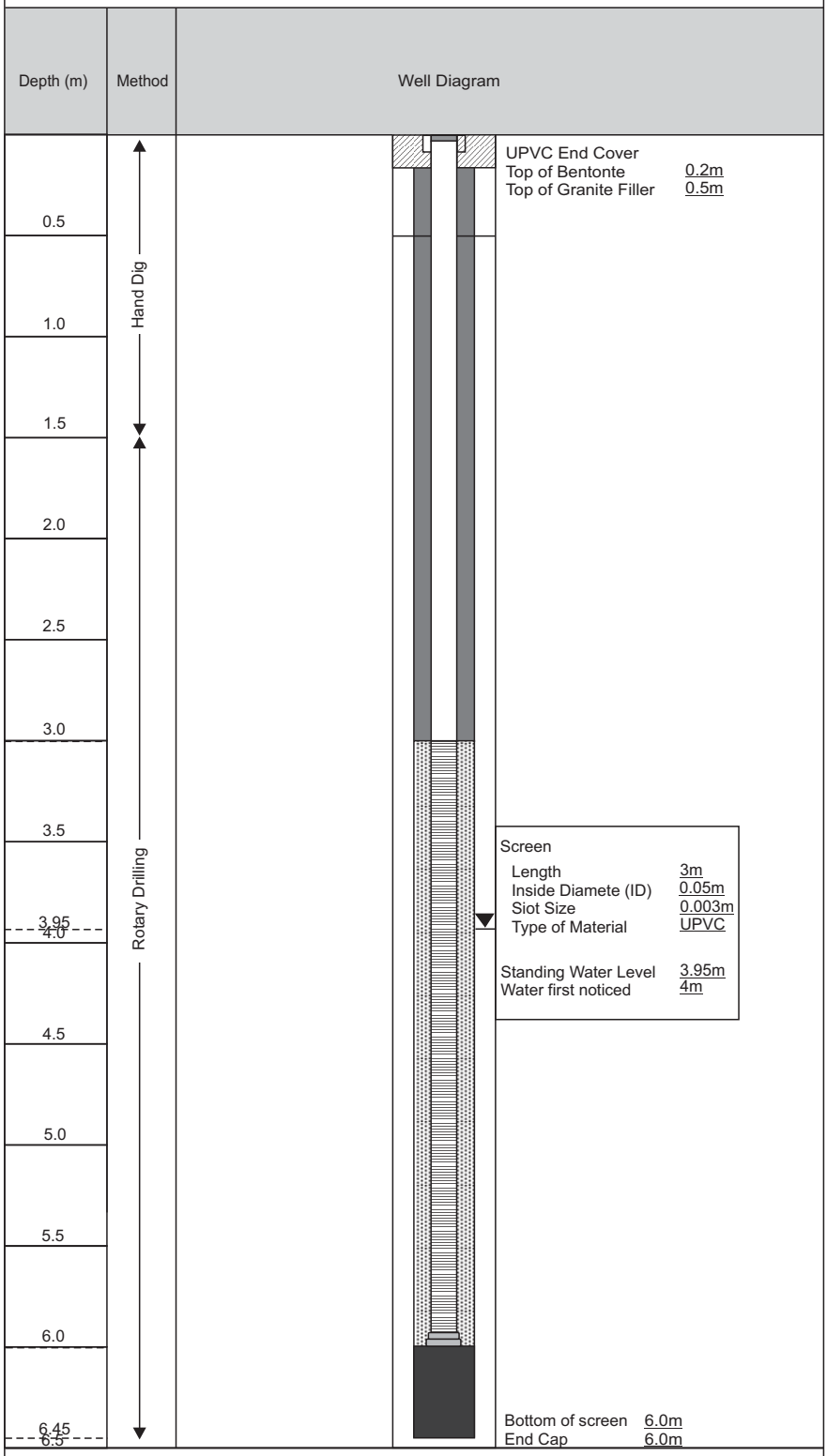
FILE: 0125309h7
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826657.641, N833803.032
Ground Level Elevation: + 10.59 mPD

Hole No. : N3 - 05
Installation Date :22 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N3-05

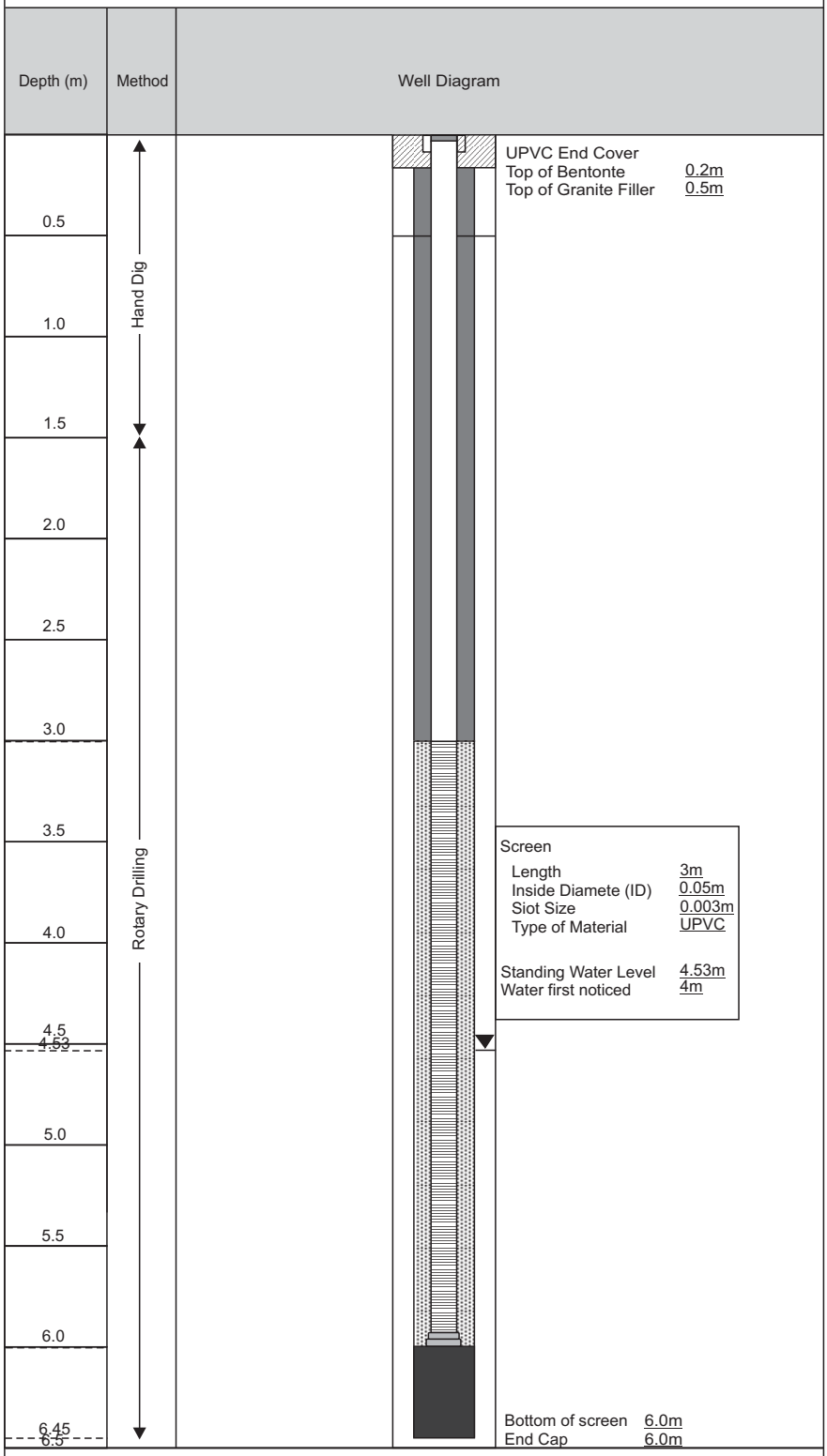
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DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826647.712, N833792.633
Ground Level Elevation: + 10.65 mPD

Hole No. : N3 - 06
Installation Date :20 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N3-06

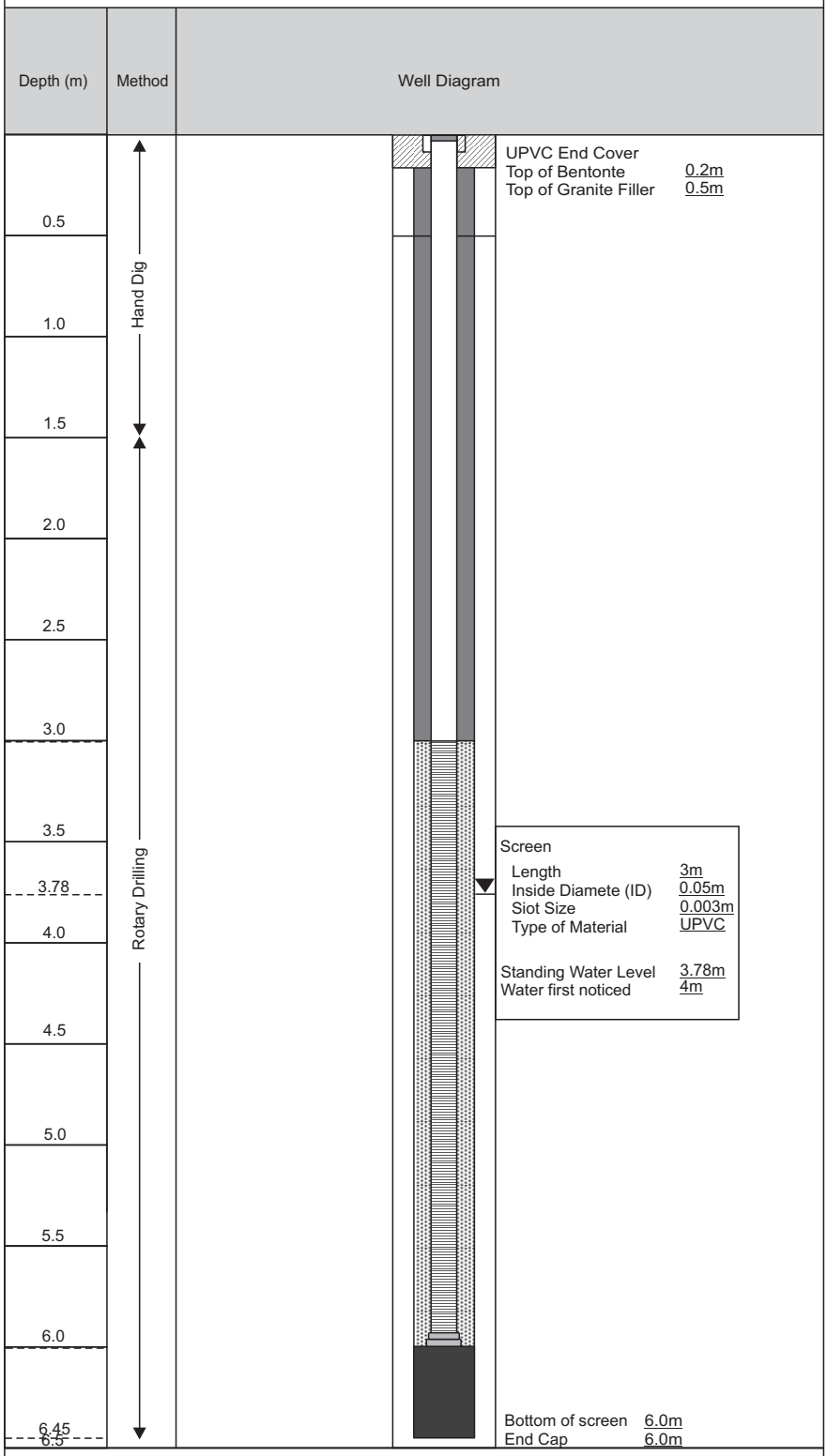
FILE: 0125309h9
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826619.241, N833806.421
Ground Level Elevation: + 10.79 mPD

Hole No. : N4 - 01
Installation Date :22 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at N4-01

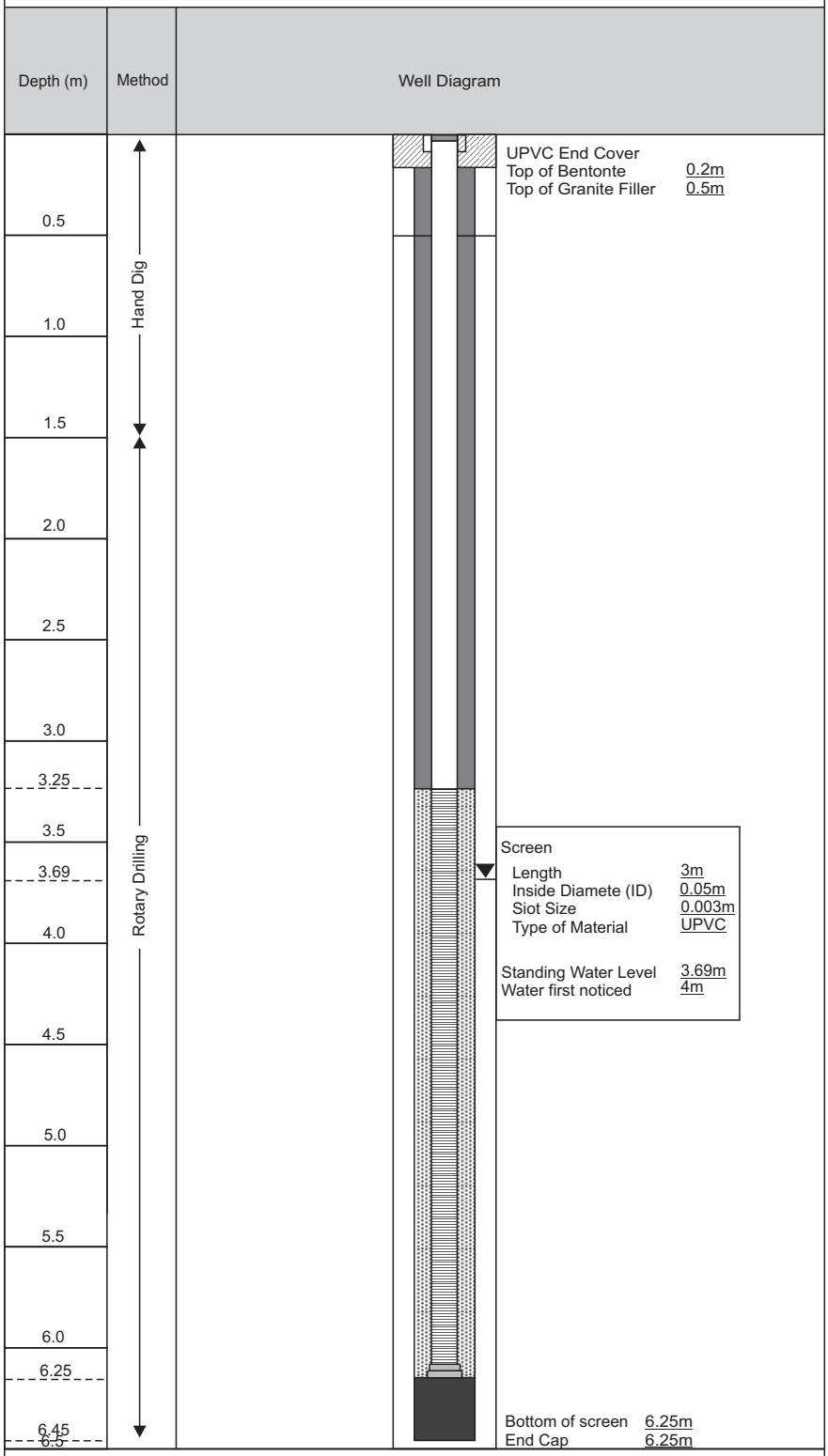
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DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826578.812, N833865.620
Ground Level Elevation: + 10.53 mPD

Hole No. : O - 01
Installation Date :26 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.25m
Screen: 3.25 to 6.25m
Granite Pack: 0.5 to 6.25m
Gravel Pack: 6.25 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at O-01

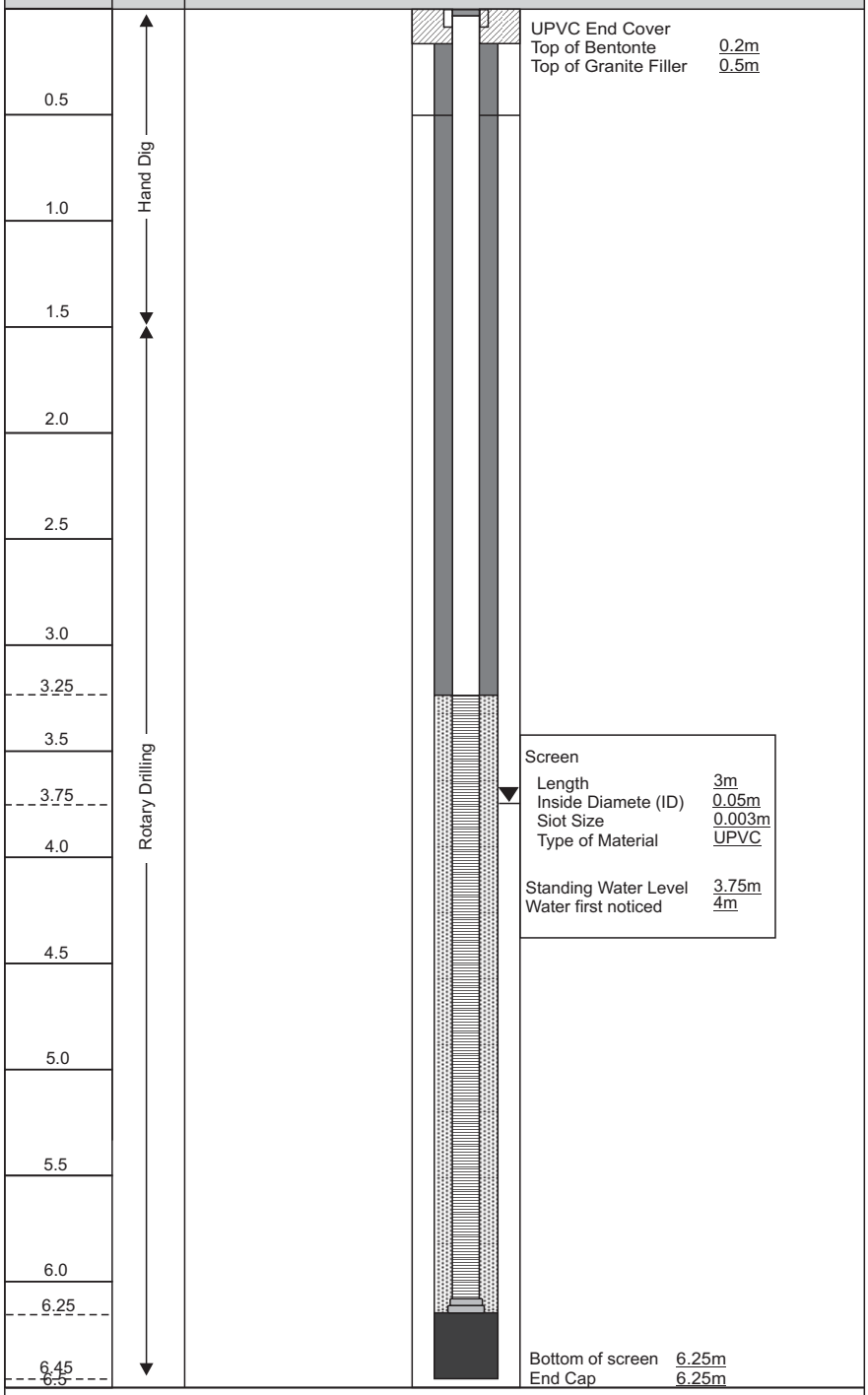
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DATE: 14/03/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826560.335, N833885.650
Ground Level Elevation: + 10.89 mPD

Hole No. : O - 02
Installation Date :26 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.25m
Screen: 3.25 to 6.25m
Granite Pack: 0.5 to 6.25m
Gravel Pack: 6.25 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at O-02

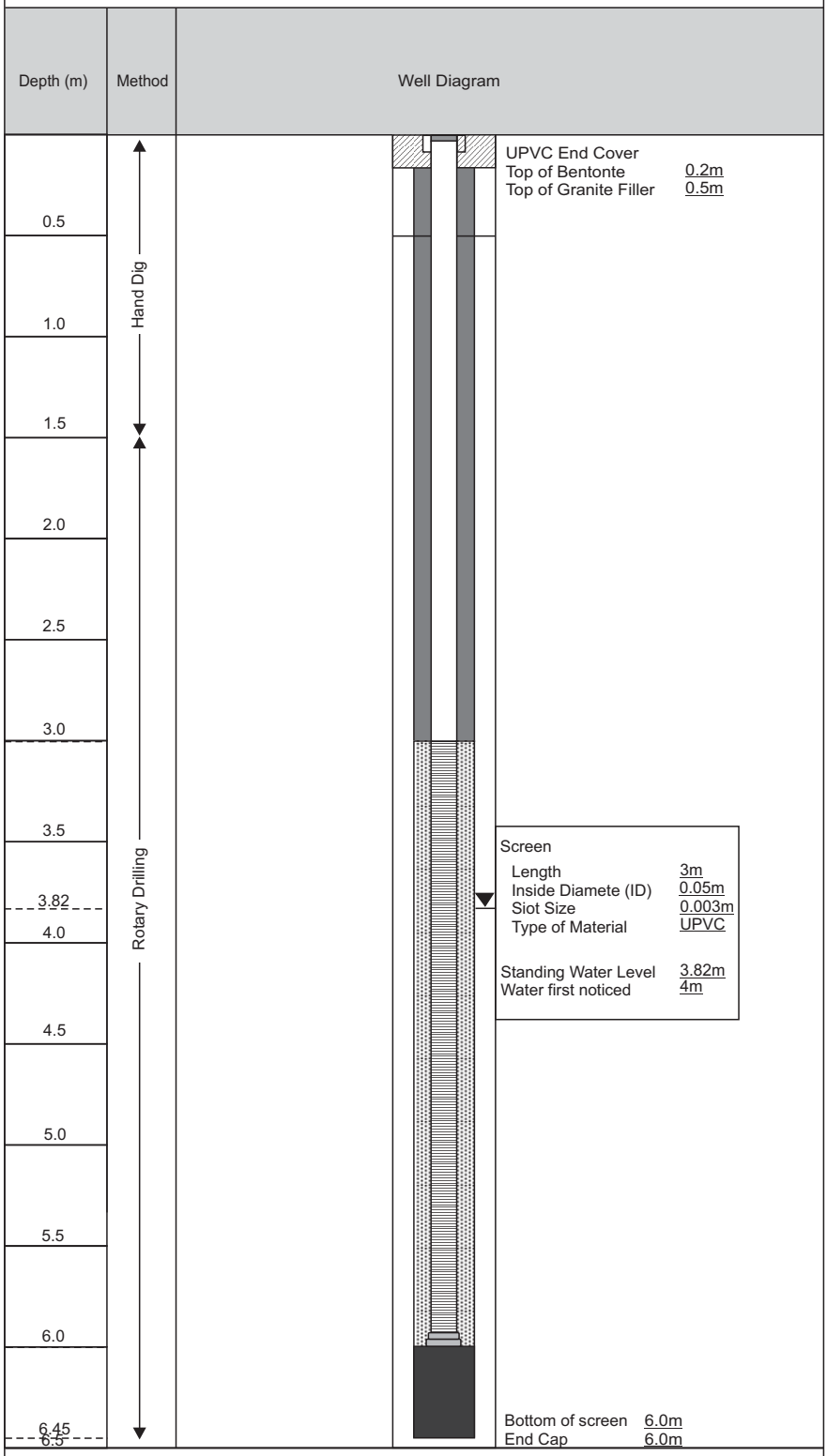
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DATE: 14/03/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826685.421, N833701.633
Ground Level Elevation: + 10.79 mPD

Hole No. : P - 01
Installation Date :28 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at P-01

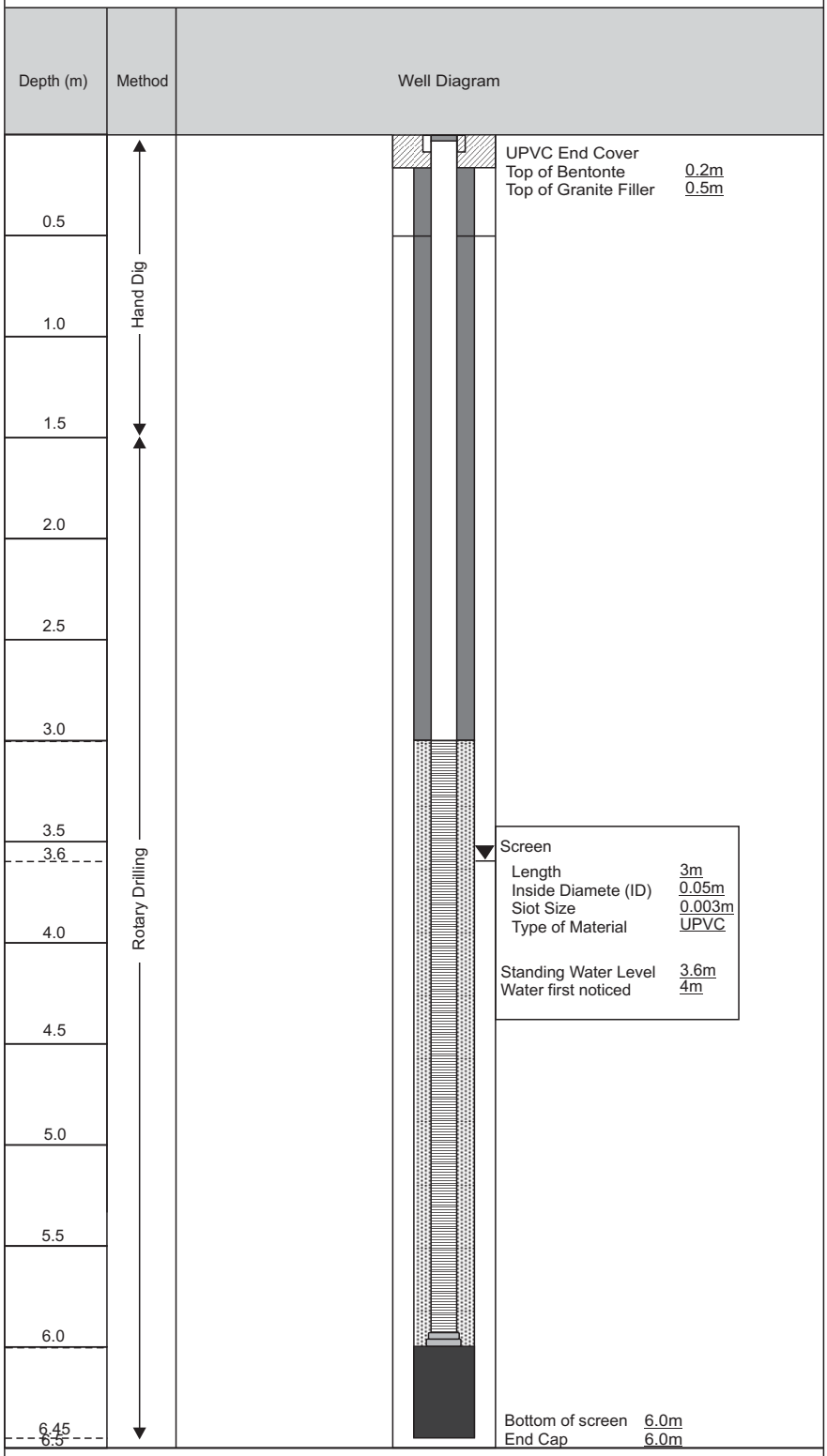
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DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826692.623, N833717.247
Ground Level Elevation: + 10.90 mPD

Hole No. : P - 02
Installation Date :28 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at P-02

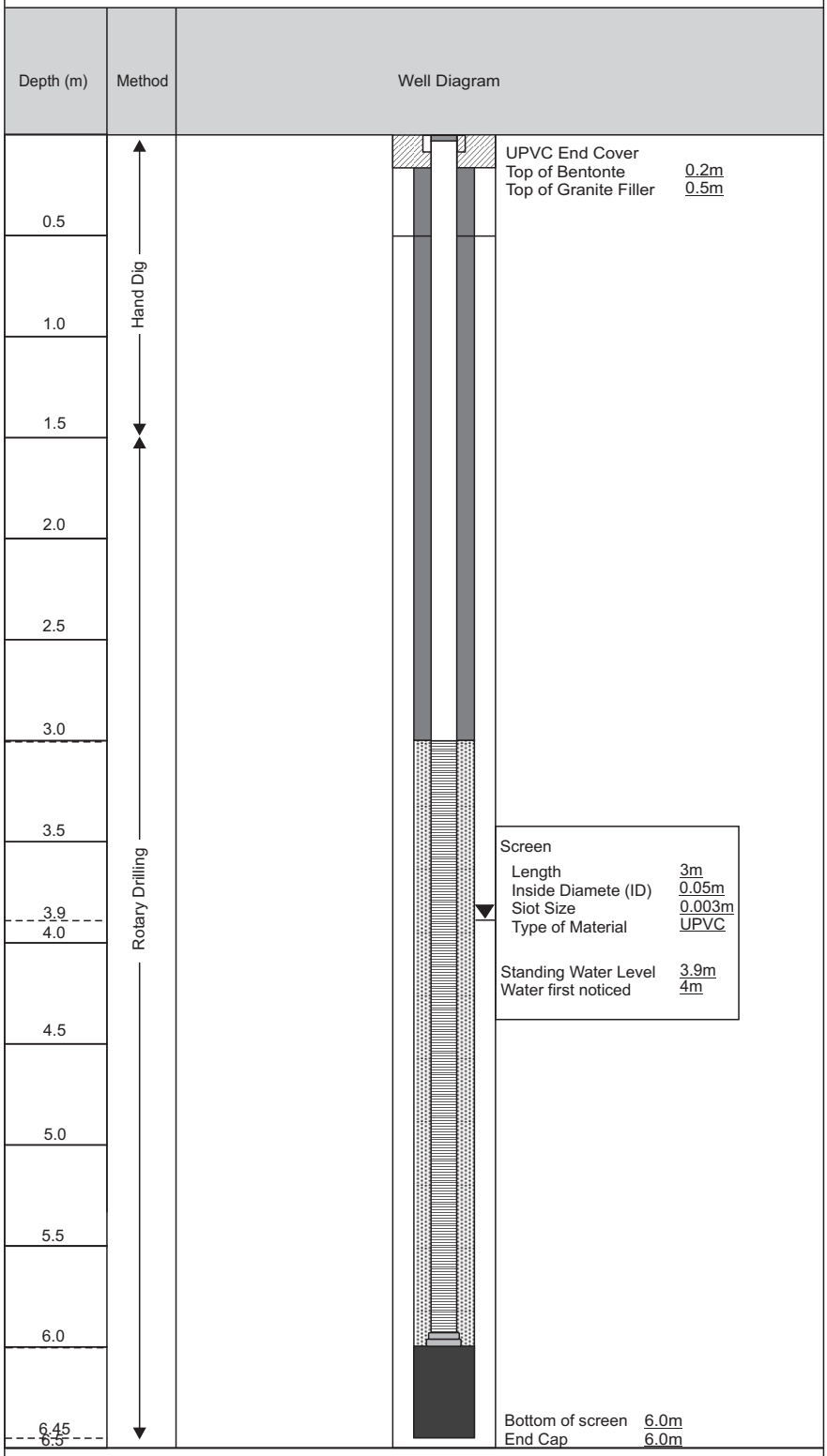
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DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826674.726, N833740.401
Ground Level Elevation: + 11.12 mPD

Hole No. : P - 05
Installation Date :31 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at P-05

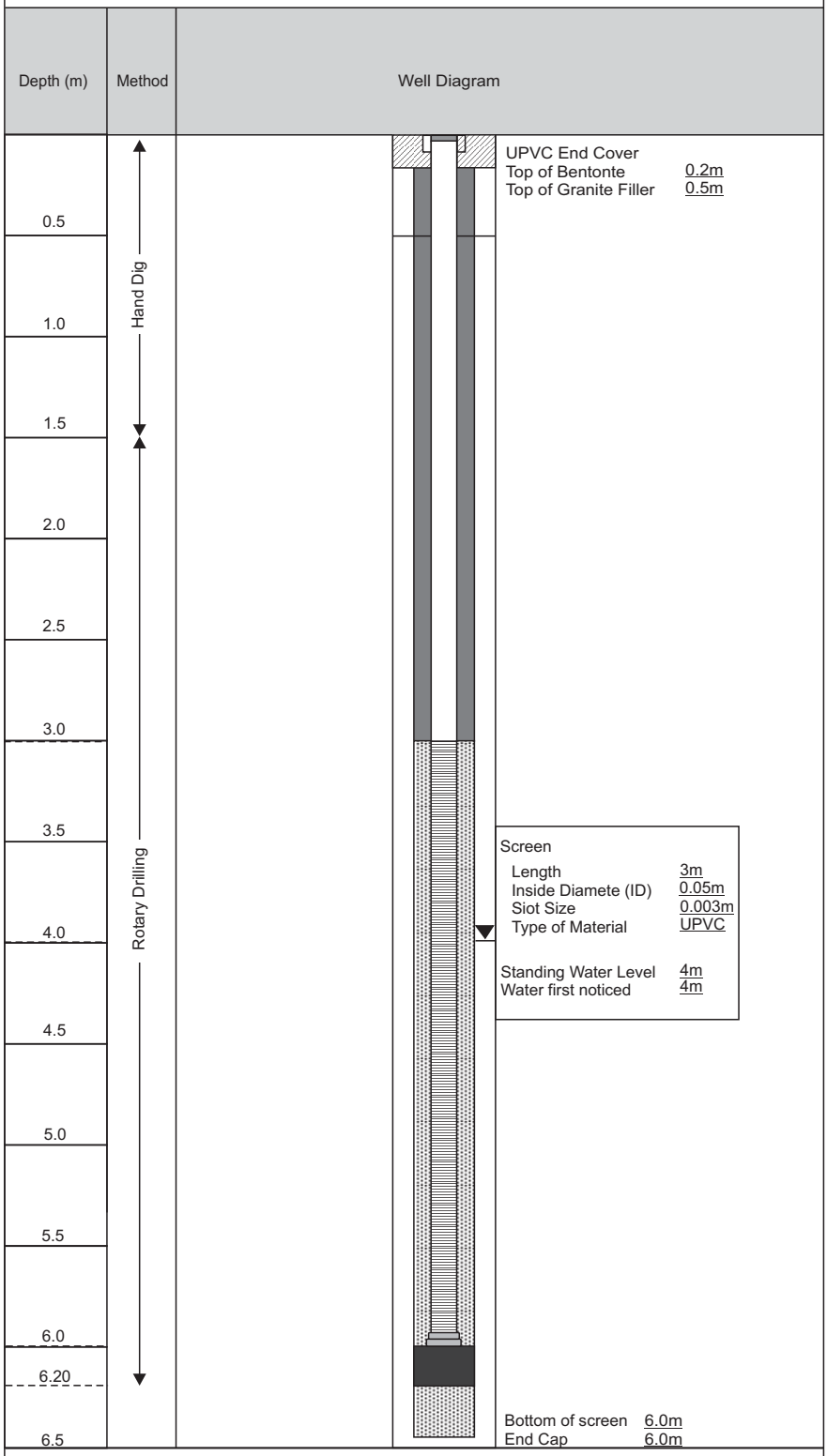
FILE: 0125309h13
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826664.643, N833734.321
Ground Level Elevation: + 10.9 mPD

Hole No. : P - 06
Installation Date : 31 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.20 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.20m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at P-06

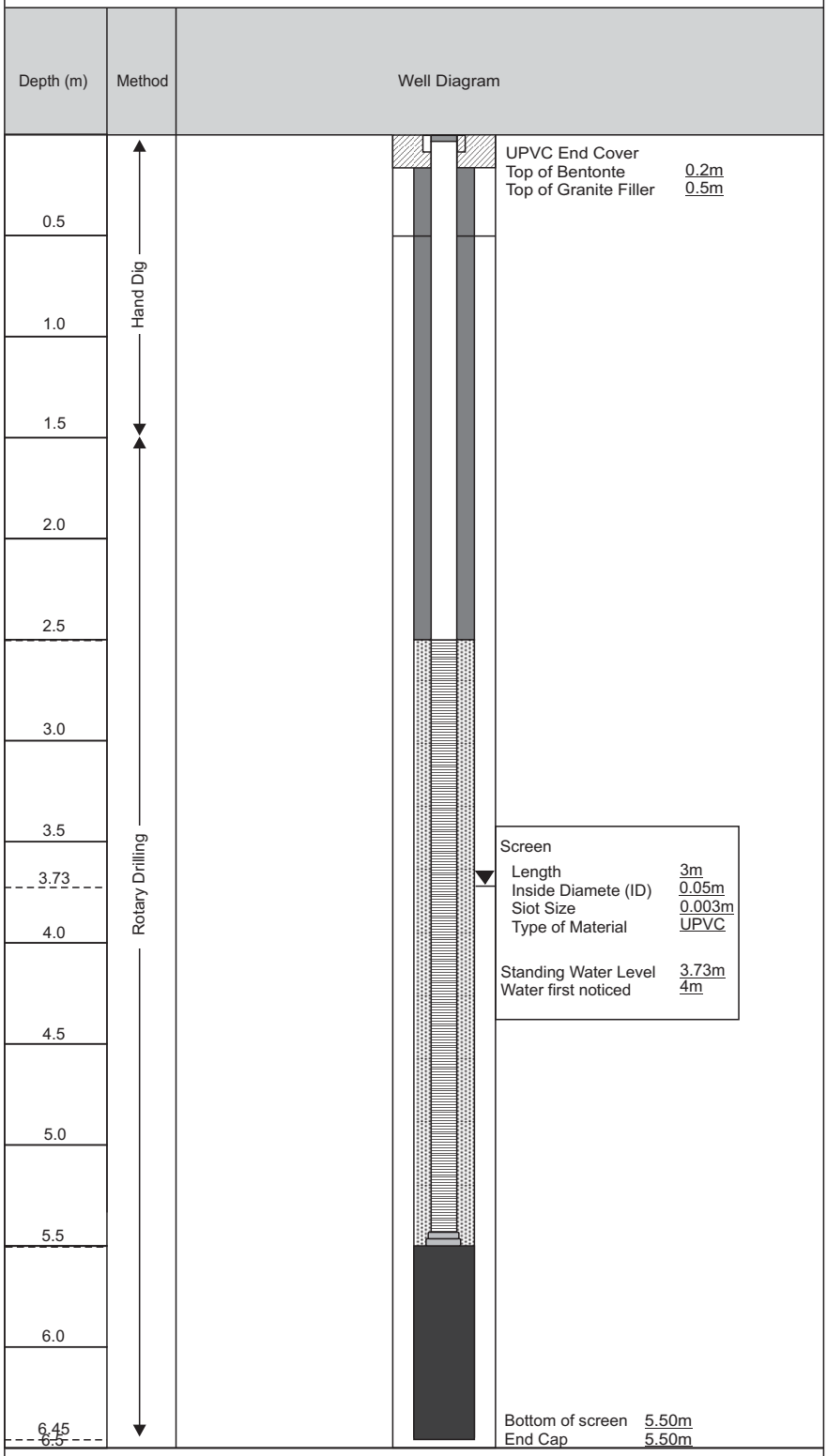
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DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826693.139, N833725.125
Ground Level Elevation: + 10.99 mPD

Hole No. : P - 08
Installation Date : 17 Jun 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 5.50m
Screen: 2.50 to 5.50m
Granite Pack: 0.5 to 5.50m
Gravel Pack: 5.50 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at P-08

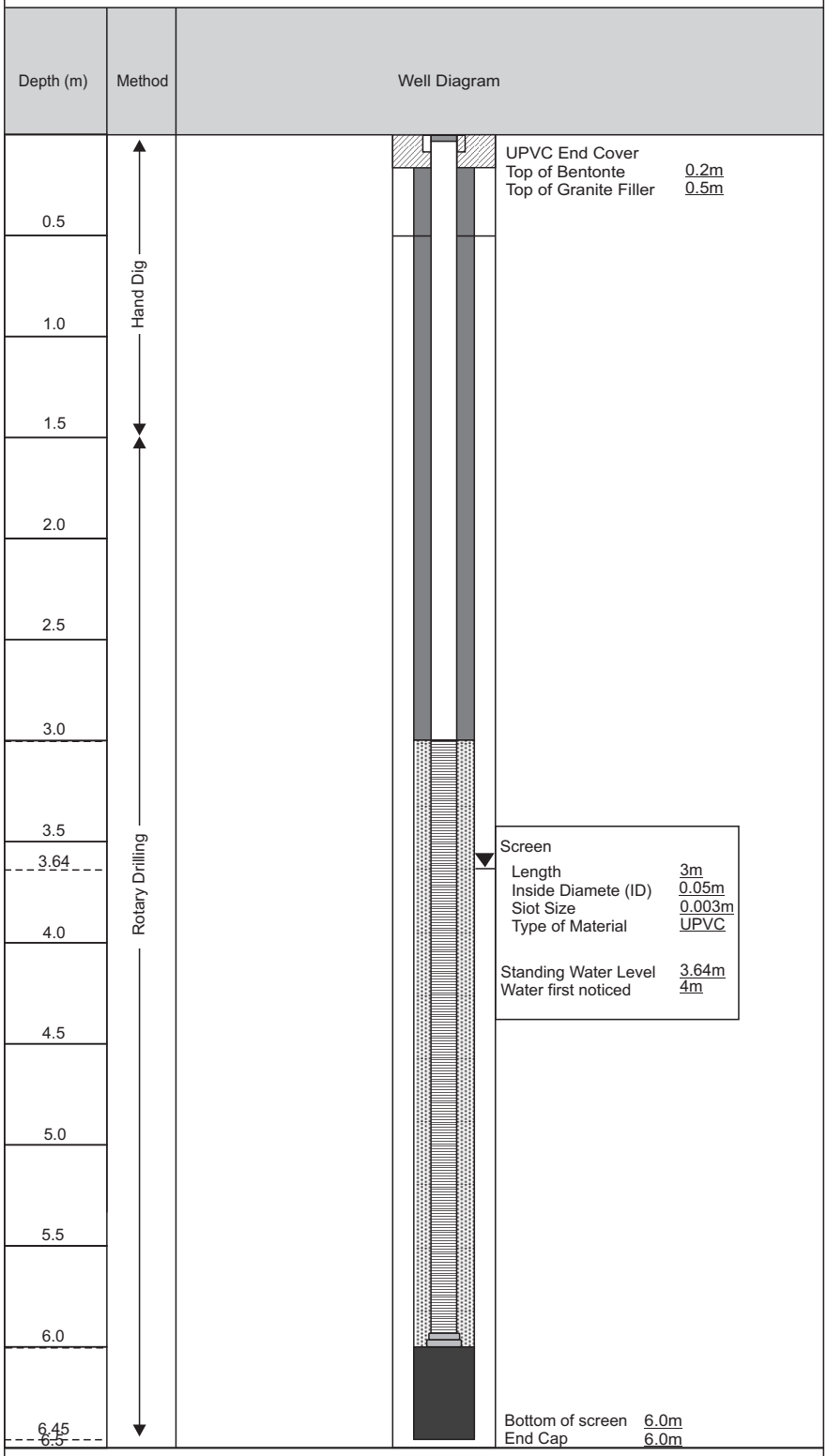
FILE: 0125309h
DATE: 24/08/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826694.642, N833721.611
Ground Level Elevation: + 10.82 mPD

Hole No. : P - 09
Installation Date : 16 Jun 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at P-09

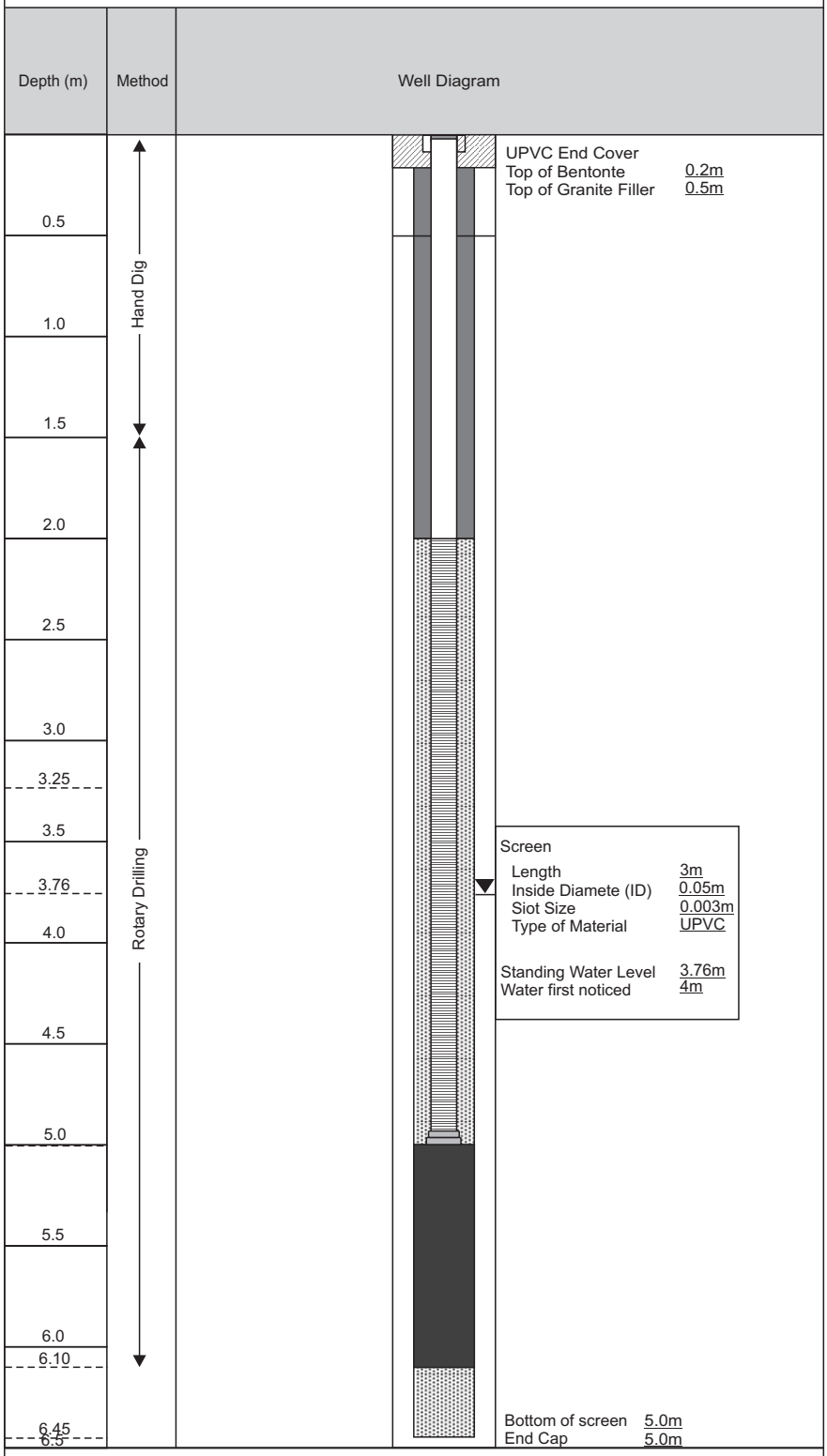
FILE: 0125309h1
DATE: 24/08/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826695.258, N833719.306
Ground Level Elevation: + 10.85 mPD

Hole No. : P - 10
Installation Date : 17 Jun 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.10 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 5.0m
Screen: 2.0 to 5.0m
Granite Pack: 0.5 to 5.0m
Gravel Pack: 5.0 to 6.10m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Annex C2

Groundwater Monitoring Well at P-10

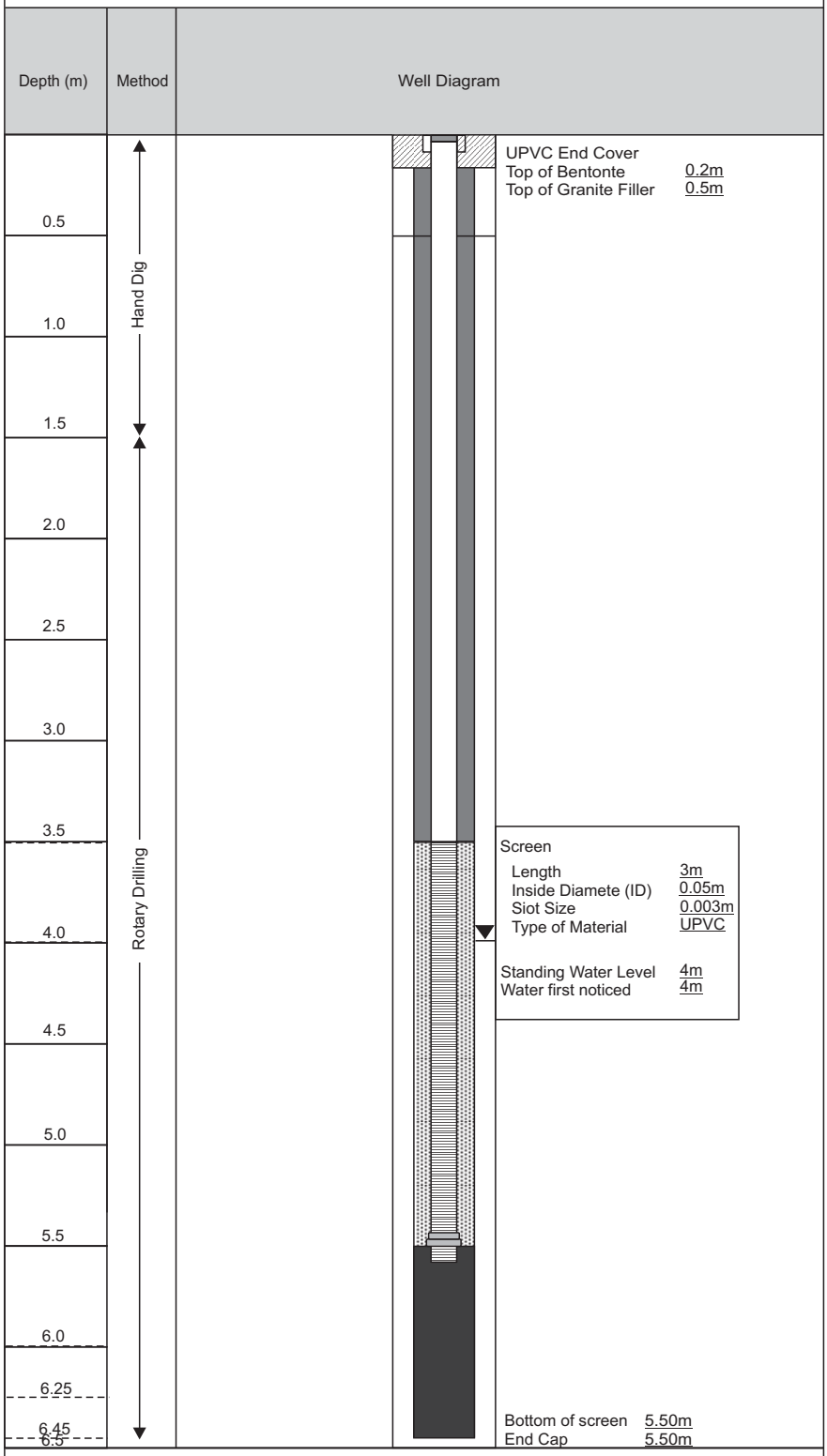
FILE: 0125309h2
DATE: 24/08/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826701.213, N833748.153
Ground Level Elevation: + 11.65 mPD

Hole No. : Q - 06
Installation Date :27 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 5.50m
Screen: 3.50 to 5.50m
Granite Pack: 0.5 to 5.50m
Gravel Pack: 5.50 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at Q-06

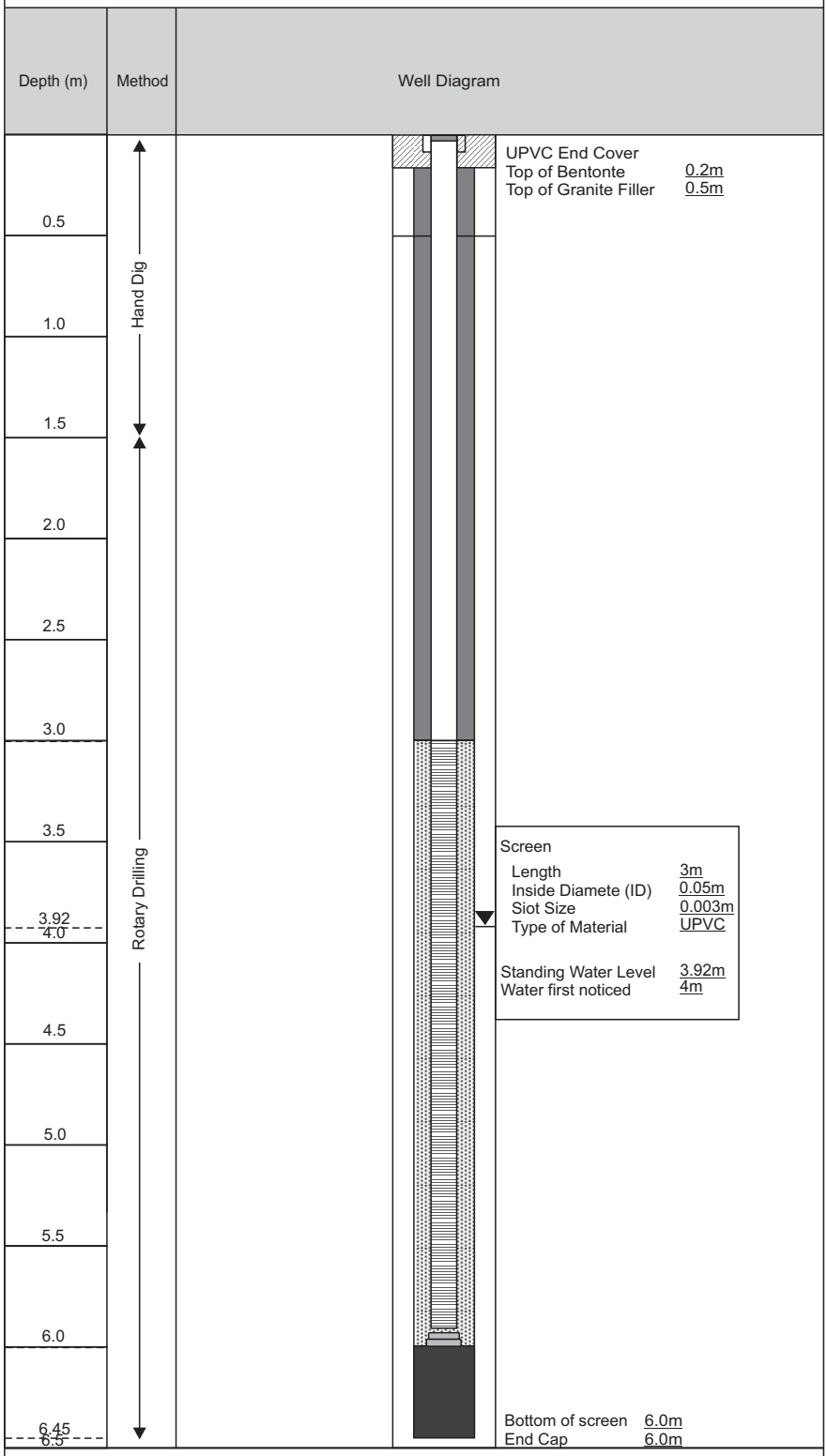
FILE: 0125309h15
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826683.812, N833790.643
Ground Level Elevation: + 11.87 mPD

Hole No. : Q - 07
Installation Date :29 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at Q-07

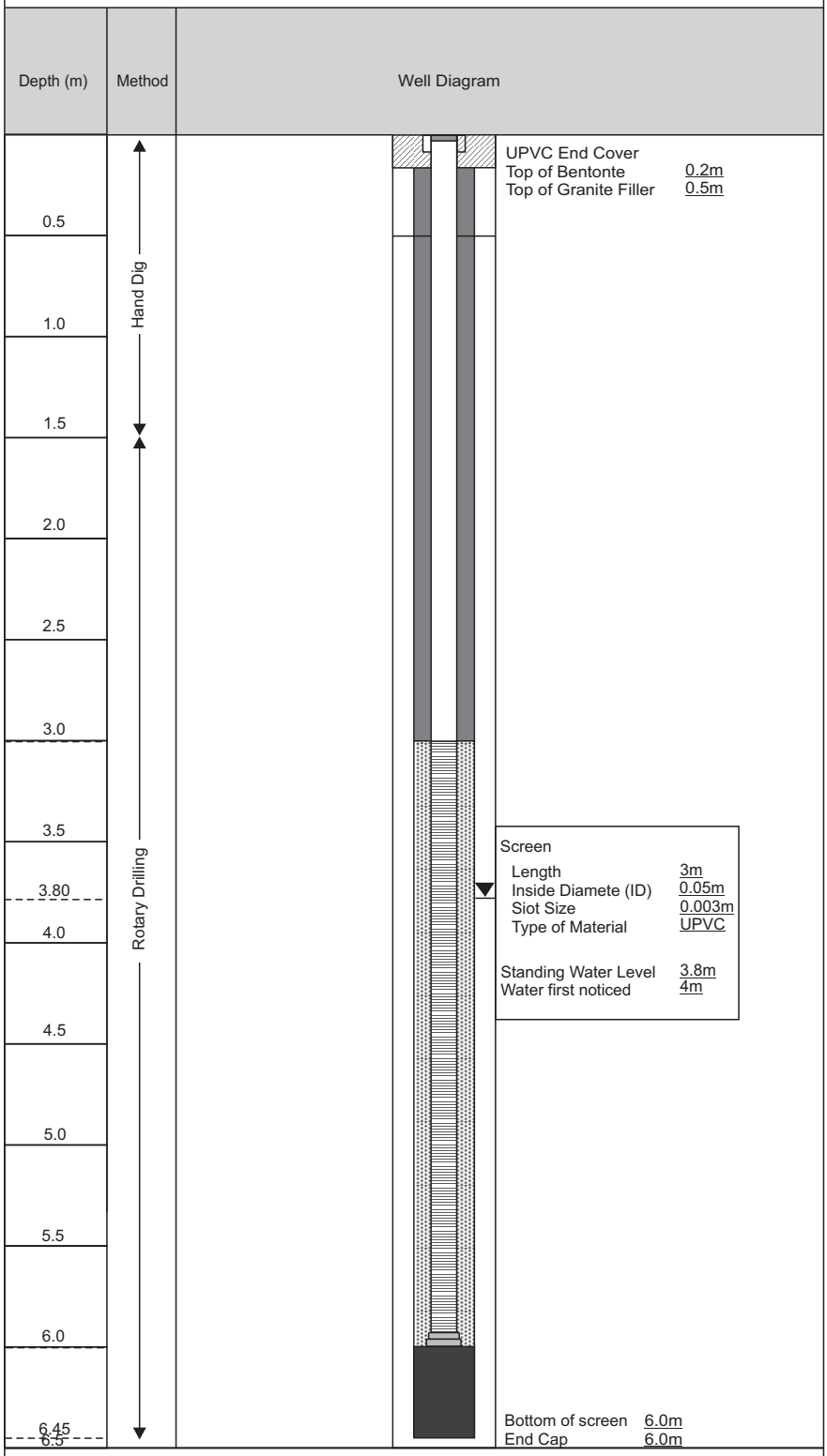
FILE: 0125309h16
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826588.633, N833845.875
Ground Level Elevation: + 10.65 mPD

Hole No. : R - 01
Installation Date :27 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at R-01

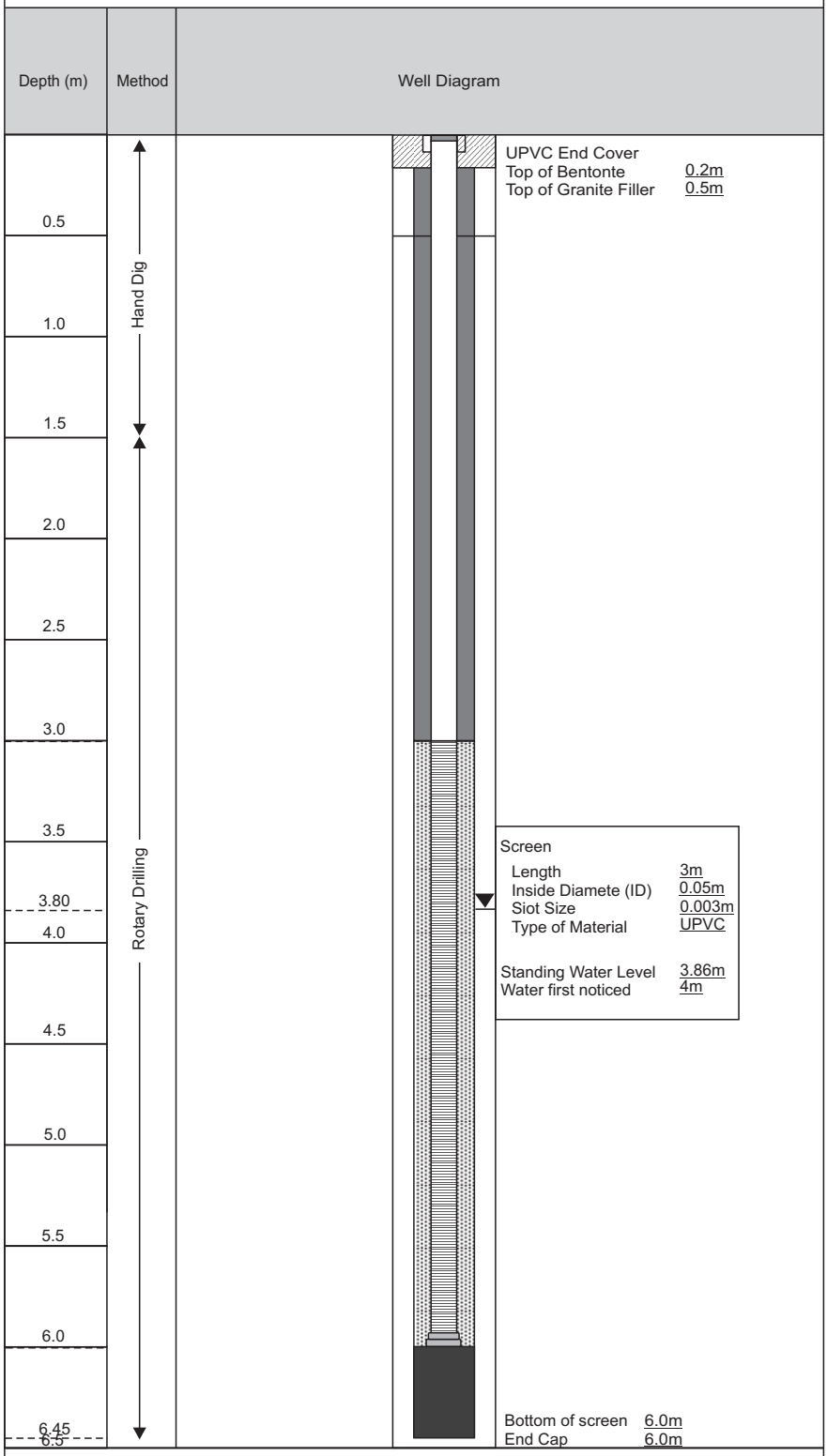
FILE: 0125309h17
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826602.236, N833832.528
Ground Level Elevation: + 10.62 mPD

Hole No. : R - 02
Installation Date :25 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at R-02

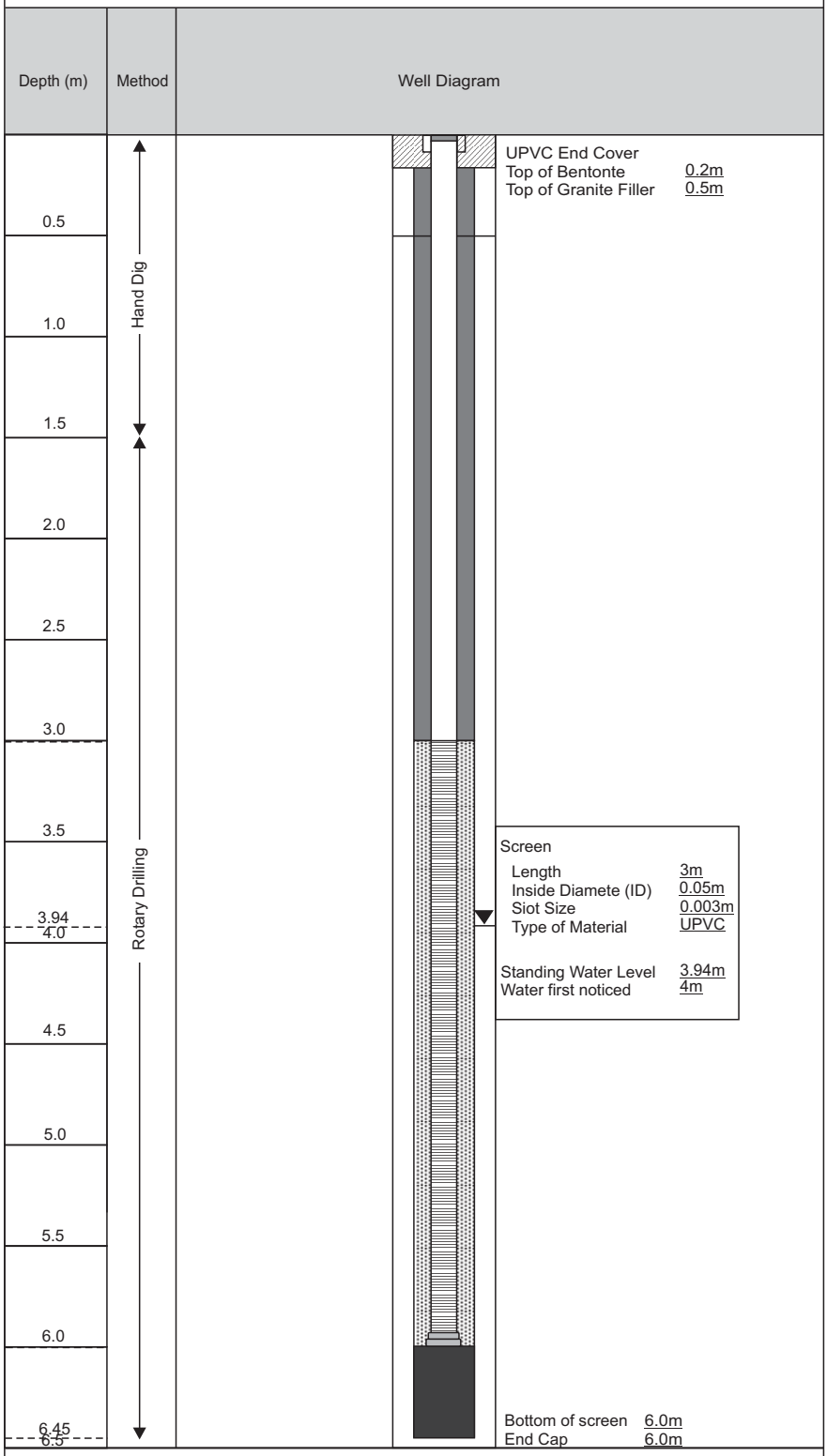
FILE: 0125309h18
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826596.703, N833837.201
Ground Level Elevation: + 10.63 mPD

Hole No. : R - 03
Installation Date :25 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at R-03

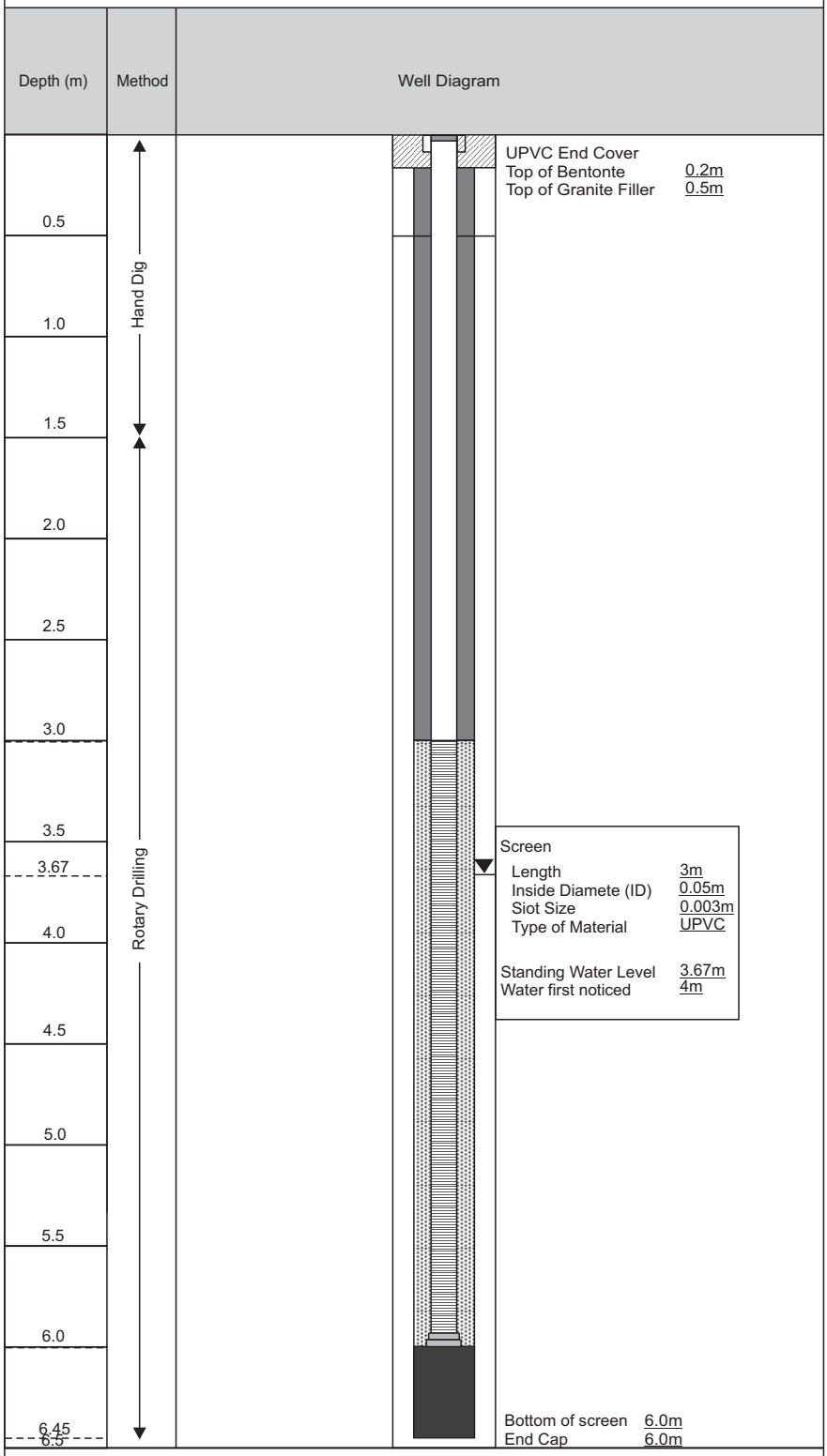
FILE: 0125309h19
DATE: 16/05/2011

Environmental Resources Management

ERM

Project Title : 823a SIR Site M, N, O, P, Q and R
Coordinates : E826596.771, N833852.303
Ground Level Elevation: + 10.46 mPD

Hole No. : R - 04
Installation Date :24 Jan 2011
Driller : Shun Bong Drilling Engineering (HK) Ltd.



End of soil bore = 6.45 m

Remarks

No LNAPL identified during SI Works

Well Installation Details

Soil Bore Diameter: 0.14m
Total Depth of Well: 6.0m
Screen: 3.0 to 6.0m
Granite Pack: 0.5 to 6.0m
Gravel Pack: 6.0 to 6.45m
Bentonite Seal: 0.2 to 0.5m
Concrete Filled: 0.0 to 0.2m
Water First Noticed: 4m

Groundwater Monitoring Well at R-04

FILE: 0125309h20
DATE: 16/05/2011

Environmental Resources Management

ERM

Annex D

RBRGs for Soil and Groundwater Limits

Table 2.1
Risk-Based Remediation Goals (RBRGs) for Soil & Soil Saturation Limit

Chemical	Risk-Based Remediation Goals for Soil				Soil Saturation Limit (C_{sat}) (mg/kg)
	Urban Residential (mg/kg)	Rural Residential (mg/kg)	Industrial (mg/kg)	Public Parks (mg/kg)	
VOCs					
Acetone	9.59E+03	4.26E+03	1.00E+04*	1.00E+04*	***
Benzene	7.04E-01	2.79E-01	9.21E+00	4.22E+01	3.36E+02
Bromodichloromethane	3.17E-01	1.29E-01	2.85E+00	1.34E+01	1.03E+03
2-Butanone	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	***
Chloroform	1.32E-01	5.29E-02	1.54E+00	2.53E+02	1.10E+03
Ethylbenzene	7.09E+02	2.98E+02	8.24E+03	1.00E+04*	1.38E+02
Methyl tert-Butyl Ether	6.88E+00	2.80E+00	7.01E+01	5.05E+02	2.38E+03
Methylene Chloride	1.30E+00	5.29E-01	1.39E+01	1.28E+02	9.21E+02
Styrene	3.22E+03	1.54E+03	1.00E+04*	1.00E+04*	4.97E+02
Tetrachloroethene	1.01E-01	4.44E-02	7.77E-01	1.84E+00	9.71E+01
Toluene	1.44E+03	7.05E+02	1.00E+04*	1.00E+04*	2.35E+02
Trichloroethene	5.23E-01	2.11E-01	5.68E+00	6.94E+01	4.88E+02
Xylenes (Total)	9.50E+01	3.68E+01	1.23E+03	1.00E+04*	1.50E+02
SVOCs					
Acenaphthene	3.51E+03	3.28E+03	1.00E+04*	1.00E+04*	6.02E+01
Acenaphthylene	2.34E+03	1.51E+03	1.00E+04*	1.00E+04*	1.98E+01
Anthracene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	2.56E+00
Benzo(a)anthracene	1.20E+01	1.14E+01	9.18E+01	3.83E+01	
Benzo(a)pyrene	1.20E+00	1.14E+00	9.18E+00	3.83E+00	
Benzo(b)fluoranthene	9.88E+00	1.01E+01	1.78E+01	2.04E+01	
Benzo(g,h,i)perylene	1.80E+03	1.71E+03	1.00E+04*	5.74E+03	
Benzo(k)fluoranthene	1.20E+02	1.14E+02	9.18E+02	3.83E+02	
bis-(2-Ethylhexyl)phthalate	3.00E+01	2.80E+01	9.18E+01	9.42E+01	
Chrysene	8.71E+02	9.19E+02	1.14E+03	1.54E+03	
Dibenzo(a,h)anthracene	1.20E+00	1.14E+00	9.18E+00	3.83E+00	
Fluoranthene	2.40E+03	2.27E+03	1.00E+04*	7.62E+03	
Fluorene	2.38E+03	2.25E+03	1.00E+04*	7.45E+03	5.47E+01
Hexachlorobenzene	2.43E-01	2.20E-01	5.82E-01	7.13E-01	
Indeno(1,2,3-cd)pyrene	1.20E+01	1.14E+01	9.18E+01	3.83E+01	
Naphthalene	1.82E+02	8.56E+01	4.53E+02	9.14E+02	1.25E+02
Phenanthrene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	2.80E+01
Phenol	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	7.26E+03
Pyrene	1.80E+03	1.71E+03	1.00E+04*	5.72E+03	
Metals					
Antimony	2.95E+01	2.91E+01	2.61E+02	9.79E+01	
Arsenic	2.21E+01	2.18E+01	1.96E+02	7.35E+01	
Barium	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Cadmium	7.38E+01	7.28E+01	6.53E+02	2.45E+02	
Chromium III	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Chromium VI	2.21E+02	2.18E+02	1.96E+03	7.35E+02	
Cobalt	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Copper	2.95E+03	2.91E+03	1.00E+04*	9.79E+03	
Lead	2.58E+02	2.55E+02	2.29E+03	8.57E+02	
Manganese	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Mercury	1.10E+01	6.52E+00	3.84E+01	4.56E+01	
Molybdenum	3.69E+02	3.64E+02	3.26E+03	1.22E+03	
Nickel	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Tin	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Zinc	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	
Dioxins / PCBs					
Dioxins (I-TEQ)	1.00E-03	1.00E-03	5.00E-03	1.00E-03	
PCBs	2.36E-01	2.26E-01	7.48E-01	7.56E-01	
Petroleum Carbon Ranges					
C6 - C8	1.41E+03	5.45E+02	1.00E+04*	1.00E+04*	1.00E+03
C9 - C16	2.24E+03	1.33E+03	1.00E+04*	1.00E+04*	3.00E+03
C17 - C35	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+04*	5.00E+03
Other Inorganic Compounds					
Cyanide, free	1.48E+03	1.46E+03	1.00E+04*	4.90E+03	
Organometallics					
TBTO	2.21E+01	2.18E+01	1.96E+02	7.35E+01	

Notes:
(1) For Dioxins, the cleanup levels in USEPA Office of Solid Waste and Emergency Response (OSWER) Directive of 1998 have been adopted. The OSWER Directive value of 1 ppb for residential use has been applied to the scenarios of "Urban Residential", "Rural Residential", and "Public Parks", while the low end of the range of values for industrial, 5 ppb, has been applied to the scenario of "Industrial".
(2) Soil saturation limits for petroleum carbon ranges taken from the Canada-Wide Standards for Petroleum Hydrocarbons in Soil, CCME 2000.
(3) * indicates a 'ceiling limit' concentration.
(4) *** indicates that the C_{sat} value exceeds the 'ceiling limit' therefore the RBRG applies.

Table 2.2
Risk-Based Remediation Goals (RBRGs) for Groundwater and Solubility Limit

Chemical	Risk-Based Remediation Goals for Groundwater			Solubility Limit (mg/L)
	Urban Residential (mg/L)	Rural Residential (mg/L)	Industrial (mg/L)	
VOCs				
Acetone	1.00E+04*	1.00E+04*	1.00E+04*	***
Benzene	3.86E+00	1.49E+00	5.40E+01	1.75E+03
Bromodichloromethane	2.22E+00	8.71E-01	2.62E+01	6.74E+03
2-Butanone	1.00E+04*	1.00E+04*	1.00E+04*	***
Chloroform	9.56E-01	3.82E-01	1.13E+01	7.92E+03
Ethylbenzene	1.02E+03	3.91E+02	1.00E+04*	1.69E+02
Methyl tert-Butyl Ether	1.53E+02	6.11E+01	1.81E+03	***
Methylene Chloride	1.90E+01	7.59E+00	2.24E+02	***
Styrene	3.02E+03	1.16E+03	1.00E+04*	3.10E+02
Tetrachloroethene	2.50E-01	9.96E-02	2.95E+00	2.00E+02
Toluene	5.11E+03	1.97E+03	1.00E+04*	5.26E+02
Trichloroethene	1.21E+00	4.81E-01	1.42E+01	1.10E+03
Xylenes (Total)	1.12E+02	4.33E+01	1.57E+03	1.75E+02
SVOCs				
Acenaphthene	1.00E+04*	7.09E+03	1.00E+04*	4.24E+00
Acenaphthylene	1.41E+03	5.42E+02	1.00E+04*	3.93E+00
Anthracene	1.00E+04*	1.00E+04*	1.00E+04*	4.34E-02
Benzo(a)anthracene				
Benzo(a)pyrene				
Benzo(b)fluoranthene	5.39E-01	2.03E-01	7.53E+00	1.50E-03
Benzo(g,h,i)perylene				
Benzo(k)fluoranthene				
bis-(2-Ethylhexyl)phthalate				
Chrysene	5.81E+01	2.19E+01	8.12E+02	1.60E-03
Dibenzo(a,h)anthracene				
Fluoranthene	1.00E+04*	1.00E+04*	1.00E+04*	2.06E-01
Fluorene	1.00E+04*	1.00E+04*	1.00E+04*	1.98E+00
Hexachlorobenzene	5.89E-02	2.34E-02	6.95E-01	6.20E+00
Indeno(1,2,3-cd)pyrene				
Naphthalene	6.17E+01	2.37E+01	8.62E+02	3.10E+01
Phenanthrene	1.00E+04*	1.00E+04*	1.00E+04*	1.00E+00
Phenol				
Pyrene	1.00E+04*	1.00E+04*	1.00E+04*	1.35E-01
Metals				
Antimony				
Arsenic				
Barium				
Cadmium				
Chromium III				
Chromium VI				
Cobalt				
Copper				
Lead				
Manganese				
Mercury	4.86E-01	1.84E-01	6.79E+00	
Molybdenum				
Nickel				
Tin				
Zinc				
Dioxins / PCBs				
Dioxins (I-TEQ)				
PCBs	4.33E-01	1.71E-01	5.11E+00	3.10E-02
Petroleum Carbon Ranges				
C6 - C8	8.22E+01	3.17E+01	1.15E+03	5.23E+00
C9 - C16	7.14E+02	2.76E+02	9.98E+03	2.80E+00
C17 - C35	1.28E+01	4.93E+00	1.78E+02	2.80E+00
Other Inorganic Compounds				
Cyanide, free				
Organometallics				
TBTO				

Notes:
(1) Blank indicates that RBRG could not be calculated because the toxicity or physical/chemical values were unavailable, or the condition of Henry's Law Constant>1.00E-05 was not met for the inhalation pathway.
(2) Water solubilities for Petroleum Carbon Range aliphatic C9-C16 and greater than C16 generally are considered to be effectively zero and therefore the aromatic solubility for C9-C16 is used.
(3) * indicates a 'ceiling limit' concentration.
(4) *** indicates that the solubility limit exceeds the 'ceiling limit' therefore the RBRG applies.

Annex E

Summary of Laboratory Analytical Results

THE SUMMARY OF THE LABORATORY ANALYTICAL RESULTS WITH REFERENCE TO THE RBRGS FOR SOIL AND SATURATION LIMITS

Parameters	**RBRGs for Soil (mg/kg)** [a]	**Soil Saturation Limit (C_{sat}) (mg/kg)**	**LOR (mg/kg)**	**M-01** [c] **0.5-1.4m** [b] **Duplicate Sample** HK0905257 [d]	**M-01** [c] **1.5-2.4m** HK0905257 [d]	**M-01** [c] **3-3.9m** HK0905733 [d]	**M-01** [c] **4.5-5.4m** HK0905733 [d]	**M-01** [c] **6-6.9m** HK0905733 [d]	**M-02** [c] **0.5-1.4m** HK0905731 [d]	**M-02** [c] **1.5-2.4m** [b] **Duplicate** HK0905731 [d]	**M-02** [c] **3-3.9m** HK0905756 [d]	**M-02** [c] **4.5-5.4m** HK0905756 [d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	9	6	50	12	7	9	10	14	12
Lead	2,290	NA	1	58	43	42	58	70	51	51	59	161
Nickel	10,000	NA	1	9	5	7	4	3	9	8	6	3
Zinc	10,000	NA	1	67	76	227	106	69	72	75	196	168
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	15	13	14	20	2	12	15	15	9
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	M-02 [c] 6-6.9m HK0905756 [d]	M-03 [c] 1-1.9m HK0905264 [d]	M-03 [c] 2-2.9m HK0905264 [d]	M-03 [c] 3-3.9m [b] Duplicate HK0905734 [d]	M-03 [c] 4.5-5.4m HK0905734 [d]	M-03 [c] 6-6.9m HK0905734 [d]	M-04 [c] 0.5-1.4m [b] Duplicate HK0905735 [d]	M-04 [c] 1.5-2.4m HK0905735 [d]	M-04 [c] 3-3.9m HK0905819 [d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	19	7	9	7	2	15	12	9	6
Lead	2,290	NA	1	92	46	60	141	11	76	94	86	40
Nickel	10,000	NA	1	4	5	4	3	2	2	8	6	5
Zinc	10,000	NA	1	212	84	76	108	18	84	122	61	50
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	4	7	27	4	1	3	12	8	5
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table. For sample M-03 3.00-3.90m, the duplicate sample was named as M-03 3.00-3.45m in the laboratory report.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	M-04 [c] 4.5-5.4m HK0905819 [d]	M-04 [c] 6-6.9m HK0905819 [d]	M-05 0.5m HK1101562 [d]	M-05 1.5m HK1101562 [d]	M-05 3.0-3.45m [b] DUP D HK1102480 [d]	M-05 4.5-4.95m HK1102480 [d]	M-05 6.0-6.45m HK1102480 [d]	M-06 0.5m HK1101562 [d]	M-06 1.5m HK1101562 [d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	2	21	9	10	17	12	31	9	9
Lead	2,290	NA	1	23	89	48	60	48	41	74	47	48
Nickel	10,000	NA	1	1	3	7	6	5	3	2	9	6
Zinc	10,000	NA	1	17	117	49	65	94	89	68	52	56
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	2	4	11	10	19	13	6	14	10
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	5 [f]/50 [g]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5 [f]/0.2 [g]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5 [f]/0.5 [g]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5 [f]/2 [g]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.0 [f]/5.00 [g]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
(f) LOR for M-04 4.5-5.4m, M-04 6-6.9m.
(g) LOR for M-05 0.5m, M-05 1.5m, M-05 3-3.45m, M-05 4.5-4.95m, M-05 6-6.45m, M-06 0.5m and M-06 1.5m.
* - Laboratory Reporting Limits referenced from the approved CAR
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	M-06 3.0-3.45m HK1102418 [d]	M-06 4.5-4.95m HK1102418 [d]	M-06 6.0-6.45m HK1102418 [d]	M-07 0.5m HK1101562 [d]	M-07 1.5m HK1101562 [d]	M-07 3.0-3.45m HK1102349 [d]	M-07 4.5-4.95m HK1102418 [d]	M-07 6.0-6.45m HK1102418 [d]
Metals											
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	15	14	118	9	8	17	22	24
Lead	2,290	NA	1	53	55	118	48	47	75	67	221
Nickel	10,000	NA	1	5	5	5	7	6	7	5	4
Zinc	10,000	NA	1	82	91	128	48	52	82	97	83
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	17	8	10	12	9	16	15	9
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs											
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs											
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds											
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	N1-01 0.5m HK1101480[d]	N1-01 1.5m HK1101480[d]	N1-01 3.0-3.45m HK1102151[d]	N1-02 0.5m HK1101480[d]	N1-02 1.5m HK1101480[d]	N1-02 3.0-3.45m HK1102045[d]	N1-02 4.5-4.95m HK1102151[d]	N3-01 0.5m HK1101480[d]	N3-01 1.5m HK1101480[d]
Metals												
Copper	10,000	NA	1	7	7	113	18	8	19	30	10	12
Lead	2,290	NA	1	47	40	76	53	56	69	51	45	47
Zinc	10,000	NA	1	95	105	168	105	92	159	107	100	131
Trivalent Chromium	10,000	NA	1	5	6	7	5	6	8	3	7	6
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	N3-01 3.0-3.45m HK1101562[d]	N3-01 6.0-6.45m[b] DUP A HK1101684[d]	N3-02 0.5m HK1101480[d]	N3-02 1.5m HK1101480[d]	N3-02 3.0-3.45m HK1101970[d]	N3-02 4.5-4.95m HK1101970[d]	N3-03 0.5m[b] DUP B HK1101812[d]	N3-03 1.5m HK1101812[d]	N3-03 4.5-4.95m HK1101970[d]
Metals												
Copper	10,000	NA	1	9	11	7	13	13	9	17	9	78
Lead	2,290	NA	1	44	37	43	60	61	24	50	46	44
Zinc	10,000	NA	1	114	151	102	143	115	38	110	95	137
Trivalent Chromium	10,000	NA	1	5	8	5	7	7	3	6	6	7
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
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Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	N3-04 0.5m HK1101480[d]	N3-04 1.5m HK1101480[d]	N3-04 3.0-3.45m HK1102349[d]	N3-04 4.5-4.95m HK1102349[d]	N3-05 0.5m HK1102048[d]	N3-05 1.5m HK1102048[d]	N3-05 3.0-3.45m HK1102048[d]	N3-05 6.0-6.45m HK1102048[d]	N3-06 0.5m HK1101812[d]
Metals												
Copper	10,000	NA	1	26	10	20	38	9	23	6	3	6
Lead	2,290	NA	1	50	50	98	33	38	53	33	11	36
Zinc	10,000	NA	1	195	106	171	68	49	168	61	232	74
Trivalent Chromium	10,000	NA	1	23	5	6	3	6	12	6	32	6
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
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(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	N3-06 1.5m HK1101812[d]	N3-06 3.0-3.45m HK1101970[d]	N3-06 4-4.45m HK1101970[d]	N4-01 0.5m HK1101480[d]	N4-01 1.5m HK1101480[d]	N4-01 3.0-3.45m HK1102048[d]	N4-01 4.5-4.95m HK1102048[d]
Metals										
Copper	10,000	NA	1	20	20	3	11	11	18	24
Lead	2,290	NA	1	45	50	29	54	56	83	52
Zinc	10,000	NA	1	143	103	101	117	116	110	94
Trivalent Chromium	10,000	NA	1	7	10	5	7	7	5	7
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges										
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs										
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs										
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	O-01 0.5m HK1102048[d]	O-01 1.5m HK1102048[d]	O-01 3.0-3.45m HK1102213[d]	O-01 4.5-4.95m HK1102213[d]	O-02 0.5m HK1102048[d]	O-02 1.5m HK1102048[d]	O-02 3.0-3.45m HK1102213[d]	O-02 4.5-4.95m HK1102213[d]	O-02 6.0-6.45m HK1102213[d]
Metals												
Copper	10,000	NA	1	11	14	71	51	12	8	9	15	7
Lead	2,290	NA	1	48	53	35	96	38	136	29	39	36
Zinc	10,000	NA	1	116	126	117	154	656	169	72	91	52
Trivalent Chromium	10,000	NA	1	10	8	5	7	13	6	7	6	5
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/ Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	P-01 0.5m HK1102045 [d]	P-01 1.5m HK1102045 [d]	P-01 3.0-3.45m HK1102418 [d]	P-01 4.5-4.95m HK1102418 [d]	P-01 6.0-6.45m HK1102418 [d]	P-02 0.5m HK1102151 [d]	P-02 1.5m HK1102151 [d]	P-02 3.0-3.45m HK1102418 [d]	P-02 4.5-4.95m HK1102480 [d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	0.3	BDL	BDL	0.2
Copper	10,000	NA	1	9	7	44	28	16	5	4	5	89
Lead	2,290	NA	1	722	303	58	74	48	97	73	11	94
Nickel	10,000	NA	1	4	4	2	2	4	6	3	BDL	3
Zinc	10,000	NA	1	94	176	120	100	110	175	84	18	176
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	7	6	5	5	6	10	5	3	14
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	P-02 6.0-6.45m HK1102480 [(d)]	P-03 0.5m HK1102418 [(d)]	P-03 1.5m HK1102418 [(d)]	P-03 3.0m HK1102420[(d)]	P-04 0.5m HK1102349[(d)]	P-04 1.5m HK1102418[(d)]	P-04 3.0m HK1102418[(d)]	P-05 0.5m HK1102543[(d)]	P-05 1.5m HK1102543[(d)]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	26	6	17	4	22	6	4	12	16
Lead	2,290	NA	1	60	234	2,160	138	942	240	28	581	337
Nickel	10,000	NA	1	3	3	2	3	5	5	1	2	7
Zinc	10,000	NA	1	128	89	82	51	149	118	29	93	167
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	4	10	5	6	7	8	3	8	11
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	365	BDL	1,070	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	1,490	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	6.86	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	0.579	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	0.572	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	P-05 3.0-3.45m HK1102543[d]	P-05 4.5-4.95m HK1102543[d]	P-05 6.0-6.45m HK1102543[d]	P-06 0.5m HK1102543[d]	P-06 1.5m HK1102543[d]	P-06 3.0-3.45m HK1102543[d]	P-06 4.5-4.95m HK1102543[d]	P-07 0.5m HK1102349[d]	P-07 1.5m HK1102349[d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	38	42	5	5	5	16	60	5	10
Lead	2,290	NA	1	65	58	30	568	30	20	78	117	307
Nickel	10,000	NA	1	3	3	2	6	3	1	3	4	5
Zinc	10,000	NA	1	169	130	39	183	40	36	140	92	105
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	8	7	3	8	5	2	6	6	6
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis-(2-Ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	P-07 3.0m HK1102418[d]	P-08 0.5m [b] DUP HK1113552 [d]	P-08 1.5m HK1113552 [d]	P-08 3.0-3.45m HK1113870 [d]	P-08 4.5-4.95m HK1113870 [d]	P-08 6.0-6.45m HK1113870 [d]	P-09 0.5m HK1113552 [d] [e]	P-09 1.5m HK1113552 [d]	P-09 3.0-3.45m HK1113786 [d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	0.2	BDL	BDL	BDL
Copper	10,000	NA	1	3	8	6	38	8	38	12	6	29
Lead	2,290	NA	1	24	166	264	58	27	61	59	487	29
Nickel	10,000	NA	1	BDL	5	4	3	5	4	6	4	3
Zinc	10,000	NA	1	39	97	80	119	177	246	162	124	66
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	2	8	8	9	7	7	6	9	8
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	2890	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	4010	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	84.0	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	<5.0	BDL	BDL
PCBs												
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	<0.5	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Dilution was carried out during laboratory analysis which variations were shown in the LORs.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	P-09 4.5-4.95m HK1113786 [d]	P-09 6.0-6.45m HK1113786[d]	P-10 0.5m HK1113552[d]	P-10 1.5m HK1113552[d]	P-10 3.0-3.45m HK1113786[d]	P-10 4.5-4.95m HK1113786[d]	P-10 6.0-6.45m HK1113786[d]
Metals										
Cadmium	653	NA	0.2	BDL	0.2	0.4	0.4	BDL	BDL	BDL
Copper	10,000	NA	1	32	27	8	9	3	19	9
Lead	2,290	NA	1	65	41	216	433	14	51	41
Nickel	10,000	NA	1	4	4	6	4	BDL	7	4
Zinc	10,000	NA	1	314	211	122	142	32	313	115
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	6	5	12	7	4	7	6
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges										
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs										
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs										
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g,h,i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	9.18	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(a,h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3-cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs										
Total PCBs	0.748	NA	0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds										
Free Cyanide	10,000	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals..
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	Q-01 [c] 0.5-1.4m HK0902905[d]	Q-01 [c] 1.5-2.4m HK0902905[d]	Q-01 [c] 3-3.9m HK0903023[d]	Q-01 [c] 4.95-5.85m HK0903023[d]	Q-01 [c] 5.85-6.3m HK0903023[d]	Q-02 [c] 0.5-1.4m HK0902747[d]	Q-02 [c] 1.5-2.4m HK0902747[d]	Q-02 [c] 3-3.9m HK0902761[d]	Q-02 [c] 4.95-5.85m HK0902761[d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	0.4	0.2	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	9	8	14	41	24	8	7	16	17
Lead	2,290	NA	1	41	62	71	74	98	44	34	37	89
Nickel	10,000	NA	1	5	6	6	6	6	8	5	3	4
Zinc	10,000	NA	1	62	77	158	264	240	65	67	131	180
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	16	9	9	8	10	15	8	6	12
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	0.9	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	0.8	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	0.7	BDL	BDL	BDL
Benzo(b)&Benzo(k)fluoranthene	935.8	NA	1	BDL	BDL	BDL	BDL	BDL	1.1	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	0.7	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	0.6	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	0.6	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	-	-	-	-	-	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	Q-02 [c] 5.85-6.2m HK0902761[d]	Q-03 [c] 0.5-1.4m HK0902748[d]	Q-03 [c] 1.5-2.4m HK0902748[d]	Q-03 [c] 3-3.9m HK0902751[d]	Q-03 [c] 4.95-5.4m HK0902751[d]	Q-03 [c] 6-6.9m HK0902751[d]	Q-04 [c] 0.5-1.4m HK0902912[d]	Q-04 [c] 1.5-2.4m HK0902912[d]	Q-04 [c] 3-3.9m HK0902912[d]
Metals												
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	12	4	6	11	23	5	8	6	11
Lead	2,290	NA	1	95	24	41	49	67	48	31	44	46
Nickel	10,000	NA	1	4	4	4	4	4	2	5	4	4
Zinc	10,000	NA	1	141	42	66	142	166	72	36	67	125
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	3	16	7	16	12	9	39	7	7
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2,630	BDL
VOCs												
Acetone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)fluoranthene	918	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	**2,540**	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganic Compounds												
Free Cyanide	10,000	NA	1	BDL	-	-	-	-	-	-	-	-

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	Q-04 [c] 4.95-5.85m HK0902912[d]	Q-04 [c] 5.85-6.75m HK0902912[d]	Q-04 [c] 6.75-7.2m HK0902912[d]	Q-05E [c] 0.5-1.4m HK0903026[d]	Q-05E[c] 1.5-2.4m HK0903026[d]	Q-05E[c] 3-3.9m HK0903275[d]	Q-05E[c] 4.95-5.85m HK0903275[d]	Q-05E[c] 5.85-6.75m HK0903275[d]
Metals											
Cadmium	653	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	10,000	NA	1	14	8	5	13	10	10	22	9
Lead	2,290	NA	1	86	34	56	57	55	64	51	55
Nickel	10,000	NA	1	3	3	9	5	5	5	4	2
Zinc	10,000	NA	1	138	59	76	95	120	155	489	203
Mercury	38.4	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trivalent Chromium	10,000	NA	1	8	2	21	32	7	10	9	16
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	1	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs											
Acetone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5 [e]	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.0	31.1	BDL	BDL	BDL	68.1	BDL	**356**	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
(e) Benzo(b)fluoranthene and Benzo(k)fluoranthene were combined into one contaminant category in laboratory reports extracted from the approved CAR, It is assumed that the individual LOR of each contaminant is half of the combined LOR, i.e. 0.5mg/kg
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	Q-06 0.5m HK1102213[d]	Q-06 1.5m HK1102213[d]	Q-06 3.0-3.45m HK1102349[d]	Q-06 4.5-4.95m[b] DUP C HK1102418[d]	Q-06 6.0-6.45m HK1102418[d])	Q-07 0.5m HK1102213[d]	Q-07 1.5m HK1102213[d]	Q-07 3.0-3.45m[b] DUPLICATE HK1102577[d]	Q-07 4.5-4.95m HK1102577[d]
Metals												
Copper	10,000	NA	1	22	5	12	8	66	2	4	11	14
Lead	2,290	NA	1	56	28	51	25	52	24	32	64	124
Zinc	10,000	NA	1	111	32	59	50	285	19	38	115	145
Trivalent Chromium	10,000	NA	1	11	5	6	3	8	8	6	10	5
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [a]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	R-01 0.5m HK1102213[d]	R-01 1.5m HK1102213[d]	R-01 3.0-3.45m HK1102349[d]	R-02 0.5m HK1101970[d]	R-02 1.5m HK1101970[d]	R-02 3-3.45m HK1102151[d]	R-02 4.5-4.95m HK1102151[d]	R-02 6.0-6.45m HK1102151[d]	R-03 0.5m HK1101970[d]
Metals												
Copper	10,000	NA	1	10	14	25	18	12	13	49	34	15
Lead	2,290	NA	1	48	62	88	191	47	78	25	40	75
Zinc	10,000	NA	1	64	147	121	66	103	83	79	74	42
Trivalent Chromium	10,000	NA	1	7	8	6	5	6	11	3	3	22
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges												
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

Parameters	RBRGs for Soil (mg/kg) [(a)]	Soil Saturation Limit (C_{sat}) (mg/kg)	LOR (mg/kg)	R-03 1.5m HK1101970[(d)]	R-03 3.0-3.45m HK1102151[(d)]	R-03 4.5-4.95m HK1102151[(d)]	R-04 0.5m HK1101970[(d)]	R-04 1.5m HK1101970[(d)]	R-04 3.0-3.45m HK1102045[(d)]	R-04 6.0-6.45m HK1102045[(d)]
Metals										
Copper	10,000	NA	1	15	26	14	20	26	41	8
Lead	2,290	NA	1	48	56	26	42	74	46	30
Zinc	10,000	NA	1	134	94	67	66	343	203	73
Trivalent Chromium	10,000	NA	1	8	4	5	18	11	6	6
Hexavalent Chromium	1,960	NA	1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges										
C_6-C_8	10,000	1,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	10,000	3,000	200	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	10,000	5,000	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs										
Acetone	10,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	9.21	336	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	2.85	1,030	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	1.54	1,100	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	8,240	138	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	70.1	2,380	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	13.9	921	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000	497	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	0.777	97.1	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000	235	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	5.68	488	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,230	150	1.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs										
Acenaphthene	10,000	60.2	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000	19.8	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000	2.56	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)anthracene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(a)pyrene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) fluoranthene	17.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k) fluoranthene	918	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(g.h.i)perylene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bis(2-ethylhexyl)phthalate	91.8	NA	5.00	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	1,140	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a.h)anthracene	9.18	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000	54.7	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	0.582	NA	0.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Indeno(1.2.3.cd)pyrene	91.8	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napththalene	453	125	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000	28	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenol	10,000	7,260	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000	NA	0.5	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Soil for Industrial Land Use and Soil Saturation Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Data extracted from the approved CAR.
(d) Laboratory chemical testing reports (*Annex G*) reference information.
NA – No respective RBRGs/Soil Saturation Limits available for these chemicals.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Soil/Soil Saturation Limit.

THE SUMMARY OF THE LABORATORY ANALYTICAL RESULTS WITH REFERENCE TO THE RBRGS FOR GROUNDWATER AND SOLUBILITY LIMITT

Parameters	**RBRGs for Groundwater (μg/L)** [a]	**Solubility Limit (μg/L)**	**LOR (μg/L)**	**N1-01 (μg/L)** HK1102480[c]	**N1-02 (μg/L)** HK1102480[c]	**N3-01 (μg/L)** HK1102418[c]	**N3-02[b] DUP G (μg/L)** HK1102543[c]	**N3-03A (μg/L)** HK1102718[c]	**N3-04 (μg/L)** HK1102480[c]	**N3-05 (μg/L)** HK1102543[c]	**N3-06 (μg/L)** HK1102480[c]	**N4-01 (μg/L)** HK1102418[c]
Petroleum Carbon Ranges												
C_6-C_8	1,150,000	5,230	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	9,980,000	2,800	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	178,000	2,800	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
VOCs												
Acetone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	54,000	1,750,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	26,200	6,740,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	11,300	7,920,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	10,000,000	169,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	1,810,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	224,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000,000	310,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	2,950	200,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000,000	526,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	14,200	1,100,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,570,000	175,000	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs												
Acenaphthene	10,000,000	4,240	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000,000	3,930	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000,000	43.4	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) & Benzo(k) fluoranthene	7,530	1.5	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	812,000	1.6	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000,000	206	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000,000	1,980	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	695	6,200	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	862,000	31,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000,000	1,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000,000	135	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Groundwater for Industrial Land Use and Solubility Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Laboratory chemical testing reports (*Annex G*) reference information.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Groundwater/Solubility Limit.

Parameters	RBRGs for Groundwater (μg/L) [a]	Solubility Limit (μg/L)	LOR (μg/L)	O-01 (μg/L) HK1102480[c]	O-02 (μg/L) HK1102480[c]	P-01 (μg/L) HK1102718[c]	P-02 (μg/L) HK1102718[c]	P-05 (μg/L) HK1102718[c]	P-06 (μg/L) HK1102718[c]	P-08 (μg/L) HK1113965[c]	P-09 (μg/L) HK1113965[c]
Metal											
Mercury	6,790	NA	0.5	-	-	BDL	BDL	BDL	BDL	BDL	BDL
Petroleum Carbon Ranges											
C_6-C_8	1,150,000	5,230	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	9,980,000	2,800	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	178,000	2,800	500	BDL	BDL	BDL	BDL	BDL	BDL	500	BDL
VOCs											
Acetone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	54,000	1,750,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	26,200	6,740,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	11,300	7,920,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	10,000,000	169,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	1,810,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	224,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000,000	310,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	2,950	200,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000,000	526,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	14,200	1,100,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,570,000	175,000	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs											
Acenaphthene	10,000,000	4,240	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000,000	3,930	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000,000	43.4	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) & Benzo(k) fluoranthene	7,530	1.5	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	812,000	1.6	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000,000	206	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000,000	1,980	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	695	6,200	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	862,000	31,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000,000	1,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000,000	135	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs											
Total PCBs	5,110	31	1	-	-	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
(a) RBRGs for Groundwater for Industrial Land Use and Solubility Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Laboratory chemical testing reports (*Annex G*) reference information.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicate the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Groundwater/Solubility Limit.

Parameters	RBRGs for Groundwater (μg/L) [a]	Solubility Limit (μg/L)	LOR (μg/L)	P-10 (μg/L) HK1113965[c]	Q-06 (μg/L) HK1102993[c]	Q-07 (μg/L) HK1102718[c]	R-01 (μg/L) HK1102543[c]	R-02[b] DUP E (μg/L) HK1102480[c]	R-03 (μg/L) HK1102418[c]	R-04 (μg/L) HK1102480[c]
Metal										
Mercury	6,790	NA	0.5	BDL	-	-	-	-	-	-
Petroleum Carbon Ranges										
C_6-C_8	1,150,000	5,230	20	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_9-C_{16}	9,980,000	2,800	500	BDL	BDL	BDL	BDL	BDL	BDL	BDL
C_{17}-C_{35}	178,000	2,800	500	BDL	BDL	BDL	700	700	BDL	BDL
VOCs										
Acetone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzene	54,000	1,750,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	26,200	6,740,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2-Butanone	10,000,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chloroform	11,300	7,920,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	10,000,000	169,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methyl tert-Butyl Ether	1,810,000	NA	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methylene Chloride	224,000	NA	50	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Styrene	10,000,000	310,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Tetrachloroethene	2,950	200,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	10,000,000	526,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Trichloroethene	14,200	1,100,000	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes (Total)	1,570,000	175,000	15	BDL	BDL	BDL	BDL	BDL	BDL	BDL
SVOCs										
Acenaphthene	10,000,000	4,240	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Acenaphthylene	10,000,000	3,930	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Anthracene	10,000,000	43.4	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b) & Benzo(k) fluoranthene	7,530	1.5	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	812,000	1.6	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	10,000,000	206	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluorene	10,000,000	1,980	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Hexachlorobenzene	695	6,200	4	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	862,000	31,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Phenanthrene	10,000,000	1,000	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	10,000,000	135	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
PCBs										
Total PCBs	5,110	31	1	BDL	-	-	-	-	-	-

Notes:
(a) RBRGs for Groundwater for Industrial Land Use and Solubility Limits were used for comparisons of results in this Project.
(b) A duplicate sample was taken from this location; the higher of the two results is reported in this table.
(c) Laboratory chemical testing reports (*Annex G*) reference information.
LOR – Limit of Reporting indicates the detection limits of the analytical results.
BDL – Below Detection Limit indicates the concentration is lower than the limit of reporting.
Bold results - Samples with contaminant concentrations exceeding RBRGs for Groundwater/Solubility Limit.

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Annex F

Findings of Site Q Extracted from the Approved CAR/RAP

Results and Interpretation

Field Records

2.21 The SI works were undertaken in accordance with the sampling plan detailed in the CAP. Soil boring logs are presented in **Appendix B**.

Laboratory Analytical Results for Soil Samples

2.22 Owing to the presence of rocks and cobbles encountered and unsuitability of some samples for laboratory analysis (please refer to **Table 2.2** for details), a total of 100 soil samples were collected during the SI for laboratory analysis at the current stage. A summary table of the laboratory testing results with the laboratory reports and standard forms adopted from Guidance Manual for assessing the soil samples are presented in **Appendix C. Table 2.5** below summarizes the sampling findings.

Table 2.5 Summary of Laboratory Testing Results

Location	Site ID	No. of Drillhole	No. of Sample Tested	Compliance to Industrial RBRG	Planned Post-Restoration Land Uses
MPV	D (Container Truck Parking Area with Minor Repair/ Maintenance Activities)	1	5	All sample results complied	Railway Facilities
SSS	F (Vehicle Repair Workshop)	4	18	All sample results complied	Shek Kong Stabling Siding
SSS	G (Scrap Yard)	4	14	All sample results complied	Shek Kong Stabling Siding
SSS	Q (Parking Area with Minor Repair/ Maintenance Activities)	5	26	2 samples exceed limit for bis-(2-Ethylhexyl)phthalate	Railway Facilities
SSS	S (Vehicle Repair Workshop)	2	10	All sample results complied	Railway Facilities
SSS	M (Open Storage)	4	20	All sample results complied	Railway Facilities
KCV	H (Scrap Yard)	3	5	1 sample exceed limit for bis-(2-Ethylhexyl)phthalate	Railway Facilities
Ngau Tam Mei Landfill	LF	2	2	All sample results complied	Railway Alignment
Total	**-**	**25**	**100**	**3 samples exceed limit for bis-(2-Ethylhexyl)phthalate**	**-**

2.23 The analytical results indicate that the concentrations of Chemicals Of Concern (COCs) at all soil samples comply with the RBRG (industrial) except bis-(2-Ethylhexyl)phthalate which was found exceeding the respective industrial RBRG in soil samples collected at 2108/XRL/EDH 27_0.5mBBC, 2108/XRL/EDH-Q04_1.5-2.4m and 2108/XRL/EDH-Q05_4.95-5.85m. The exceedances are summarized in **Table 2.6.**

Table 2.6 Details of Soil Sample Exceeding the Relevant RBRG Levels

Location	Site ID	Sample ID	Depth (m BBC)	Contaminant	Concentration (mg/kg)	RBRG (Industrial) levels (mg/kg)	Soil Saturation Limit (Csat) (mg/kg)
KCV	H	2108/XRL/EDH27	0.5	bis--(2-Ethylhexyl)phthalate	134	91.8	NA
SSS	Q	2108/XRL/EDHQ-04	1.50-2.40		2,540		
		2108/XRL/EDHQ-05	4.95-5.85		356		

2.24 With reference to the Guidance Manual, soil Saturation Limit (C_{sat}) for bis--(2-Ethylhexyl)phthalate is not available considering that this chemical has little mobility in nature and the potential occurrence of bis--(2-Ethylhexyl)phthalate be present in the environment as NAPL is considered to be unlikely.

2.25 For assessment at Ngau Tam Mei Landfill, laboratory results indicated the two soil samples collected at the top level of the proposed tunnel section complied with the industrial RBRG levels. There is no adverse impact identified at these two locations. For the rest of tunnel alignment section under Ngau Tam Mei Landfill site, as a general precautionary measure, visual inspection of excavated materials should be conducted to screen soil for signs of contamination (e.g. discoloration, stains and odour). The inspection process should also be assisted by a photo ionization detector (PID) for volatile organics. If suspected materials are encountered during tunnel boring, sampling and testing for the parameters recommended in the sampling schedule of CAP (as shown in **Appendix A**) should be undertaken to verify any contamination. The soil bored out during excavation and tunnel boring should be temporary stockpiled and if laboratory analysis indicated exceedance of relevant RBRG levels, remediation works, should be undertaken depending on the quantity and quality of contaminated soil identified.

Results of Groundwater Analysis

2.26 During the SI, groundwater was encountered at 11 boreholes. A total of 11 groundwater samples were therefore collected the monitoring wells which were concerted from these boreholes. A summary table of the laboratory testing results with the laboratory reports and standard forms adopted from Guidance Manual for assessing groundwater samples are also provided in **Appendix C**. The detection limits Benzo (b) & Benzo (k) fluoranthene as a combined testing parameter was found greater than the RBRG level of Benzo (b) fluoranthene. No relevant RBRG level of Benzo (k) fluoranthene was available for comparison. Since the results of laboratory analysis for Benzo (b) & Benzo (k) fluoranthene were all below detection limits, remediation is not considered necessary. For all other parameters, exceedance of industrial RBRGs and solubility limit were not found and cleanup for groundwater is therefore not required.

Estimated Extent of Contamination

2.27 Based on the analytical results of soil presented above, soil samples were found to be contaminated with semi-volatile organic chemical at Site H (2108/XRL/EDH27) in KCV and Site Q (2108/XRL/EDHQ-04 and EDHQ-05) in SSS respectively according to the RBRG.

2.28 In an attempt to confine the area of contaminated soil for handling, a 5mx5m square centred at the sampling location with contamination level above the relevant RBRG level is adopted. This approach will be assisted by confirmatory testing at the excavation boundaries. If there are any exceedances of sample collected at the excavation boundaries, the excavation area will be extended until the sample collected at the excavation boundaries met the remediation target. For vertical distribution of contaminants, the depth of contamination is assumed to be 0.5m above and below the particular sampling depth with contamination identified for conservative estimation or to the level as indicated in the other samples collected in the above and below.

2.29 Based on the above approach, the extent of soil contamination with organic contaminant has been estimated and summarized in **Table 2.7** and depicted in **Figure Nos. NOL/ERL/300/C/XRL/ENS/M57/151-152**.

Table 2.7 Location, Depth and Estimated Quantity of Contaminated Soil Found

Location	Site ID	Borehole ID	Depth with Contaminated Soil Found (m Below Base of Concrete)	Contaminant	Estimated Contamination Extent		
					Vertical(m BBC) (Thickness (m))	Horizontal (m^2)	Volume (m^3)
KCV	H	2108/XRL/EDH27	0.5	bis--(2-Ethylhexyl) phthalate	0-0.7m* (0.7m thick)	25	17.5
SSS	Q	2108/XRL/ EDHQ-04	1.50-2.40m		1.4m-2.9m** (1.5m thick)	25	37.5
	Q	2108/XRL/ EDHQ-05	4.95-5.85m		4.45m-5.85*** (1.4m thick)	25	35
Estimated Total Volume of Contamination=~90m^3							

Note:
* presence of concrete and granite from 0.7m bbc to the termination of the borehole.
** sampling at 0.50-1.40m BBC indicated no exceedance of bis--(2-ethylhexyl)phthalate
*** sampling at 5.85-6.75m bbc indicated no exceedance of bis--(2-ethylhexyl)phthalate

Conclusion and Recommendation

2.30 A total of 100 soil samples and 11 groundwater samples were collected at 25 locations at identified potentially contaminated site as scheduled in the CAP under Stage 1. There are only two sites for which the planned site investigation could not be completed in full. These sites will be followed up after this CAR in the Stage 2.

2.31 According to the analytical results, only three soil samples collected at 2108/XRL/EDH27, EDHQ-04 and EDHQ-05 were found to have bis-(2-Ethylhexyl)phthalate exceeding the RBRG (industrial) whereas no exceedances of the RBRG (industrial) were found among all groundwater samples collected, as such remediation for groundwater is not required.

2.32 For soil remediation, a Remediation Action Plan (RAP) is presented in **Section 3** below to identify appropriate remediation actions for the contaminated soil prior to construction works commencement at Sites Q and H.

2.33 For Stage 2 SI which will be conducted after this EIA study/ land resumption and prior to the construction phase, supplementary CAR(s) will be prepared to present the results of sampling and testing for EPD's endorsement and if necessary, supplementary RAP(s) will also be submitted to EPD to endorse. Remediation Report(s) (RR(s)) will be prepared after completion of all remediation actions at respective sites. Special attention should be brought to proposed tunnel section under Ngau Tam Mei Landfill where visual inspection with the assistance of PID will be conducted as a general precautionary measure. If suspected materials are encountered during tunnel boring, sampling and testing should be undertaken to verify any contamination. The soil bored out during excavation and tunnel boring should be temporary stockpiled and if laboratory analysis indicated exceedance of relevant RBRG levels, remediation works, should be undertaken depending on the quantity and quality of contaminated soil identified.

3. REMEDIATION ACTION PLAN

Objectives

3.1 This section presents possible remediation proposals and recommends appropriate remediation actions for the contaminated areas found.

3.2 The objectives of the remediation action plan (RAP) are as follows:

Annex G

Laboratory Chemical Testing Reports

Index of Annex G

Report Number	Lab Report Reference
A	HK0902747
B	HK0902748
C	HK0902751
D	HK0902761
E	HK0902905
F	HK0902912
G	HK0903023
H	HK0903026
I	HK0903275
J	HK0905257
K	HK0905264
L	HK0905731
M	HK0905733
N	HK0905734
O	HK0905735
P	HK0905756
Q	HK0905819
R	HK1101480
S	HK1101562
T	HK1101684
U	HK1101812
V	HK1101970
W	HK1102045
X	HK1102048
Y	HK1102151
Z	HK1102213
AA	HK1102349
AB	HK1102418
AC	HK1102420
AD	HK1102480
AE	HK1102543
AF	HK1102577
AG	HK1102718
AH	HK1102993
AI	HK1113552
AJ	HK1113786
AK	HK1113870
AL	HK1113965

Soil Samples					
Sampling Locations	M-01 + dup	M-01	M-01	M-01	M-01
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.5-5.4m	6-6.9m
Sampling Date	18-Mar-09	18-Mar-09	20-Mar-09	20-Mar-09	20-Mar-09
Report Number	Report J	Report J	Report M	Report M	Report M

Soil Samples					
Sampling Locations	M-02	M-02 + dup	M-02	M-02	M-02
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.5-5.4m	6-6.9m
Sampling Date	20-Mar-09	20-Mar-09	23-Mar-09	23-Mar-09	23-Mar-09
Report Number	Report L	Report L	Report P	Report P	Report P

Soil Samples					
Sampling Locations	M-03	M-03	M-03 + dup	M-03	M-03
Sampling Depth	1-1.9m	2-2.9m	3-3.9m	4.5-5.4m	6-6.9m
Sampling Date	18-Mar-09	18-Mar-09	21-Mar-09	21-Mar-09	21-Mar-09
Report Number	Report K	Report K	Report N	Report N	Report N

Soil Samples					
Sampling Locations	M-04 + dup	M-04	M-04	M-04	M-04
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.5-5.4m	6-6.9m
Sampling Date	23-Mar-09	23-Mar-09	24-Mar-09	24-Mar-09	24-Mar-09
Report Number	Report O	Report O	Report Q	Report Q	Report Q

Soil Samples					
Sampling Locations	M-05	M-05	M-05 + dup	M-05	M-05
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	18-Jan-11	18-Jan-11	28-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report S	Report S	Report AD	Report AD	Report AD

Soil Samples					
Sampling Locations	M-06	M-06	M-06	M-06	M-06
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	18-Jan-11	18-Jan-11	28-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report S	Report S	Report AB	Report AB	Report AB

Soil Samples					
Sampling Locations	M-07	M-07	M-07	M-07	M-07
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	18-Jan-11	18-Jan-11	27-Jan-11	27-Jan-11	27-Jan-11
Report Number	Report S	Report S	Report AA	Report AB	Report AB

Soil Samples				
Sampling Locations	N1-01	N1-01	N1-01	
Sampling Depth	0.5m	1.5m	3.0-3.45m	
Sampling Date	17-Jan-11	17-Jan-11	25-Jan-11	
Report Number	Report R	Report R	Report Y	

Soil Samples				
Sampling Locations	N1-02	N1-02	N1-02	N1-02
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	17-Jan-11	17-Jan-11	24-Jan-11	24-Jan-11
Report Number	Report R	Report R	Report W	Report Y

Soil Samples				
Sampling Locations	N3-01	N3-01	N3-01	N3-01+ dup
Sampling Depth	0.5m	1.5m	3.0-3.45m	6.0-6.45m
Sampling Date	17-Jan-11	17-Jan-11	18-Jan-11	19-Jan-11
Report Number	Report R	Report R	Report S	Report T

Soil Samples				
Sampling Locations	N3-02	N3-02	N3-02	N3-02
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	17-Jan-11	17-Jan-11	21-Jan-11	21-Jan-11
Report Number	Report R	Report R	Report V	Report V

Soil Samples				
Sampling Locations	N3-03 + dup	N3-03	N3-03	
Sampling Depth	0.5m	1.5m	4.5-4.95m	
Sampling Date	20-Jan-11	20-Jan-11	20-Jan-11	
Report Number	Report U	Report U	Report V	

Soil Samples				
Sampling Locations	N3-04	N3-04	N3-04	N3-04
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	17-Jan-11	17-Jan-11	27-Jan-11	27-Jan-11
Report Number	Report R	Report R	Report AA	Report AA

Soil Samples				
Sampling Locations	N3-05	N3-05	N3-05	N3-05
Sampling Depth	0.5m	1.5m	3.0-3.45m	6.0-6.45m
Sampling Date	22-Jan-11	22-Jan-11	22-Jan-11	22-Jan-11
Report Number	Report X	Report X	Report X	Report X

Note:
Samples collected at location M-01, M-02, M-03 and M-04 were expressed as 2108/XRL/M01, 2108/XRL/M02, 2108/XRL/M03 and 2108/XRL/M04 in the laboratory reports.

Soil Samples				
Sampling Locations	N3-06	N3-06	N3-06	N3-06
Sampling Depth	0.5m	1.5m	3.0-3.45m	4-4.45m
Sampling Date	20-Jan-11	20-Jan-11	21-Jan-11	21-Jan-11
Report Number	Report U	Report U	Report V	Report V

Soil Samples				
Sampling Locations	N4-01	N4-01	N4-01	N4-01
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	17-Jan-11	17-Jan-11	22-Jan-11	22-Jan-11
Report Number	Report R	Report R	Report X	Report X

Soil Samples				
Sampling Locations	O-01	O-01	O-01	O-01
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	22-Jan-11	22-Jan-11	26-Jan-11	26-Jan-11
Report Number	Report X	Report X	Report Z	Report Z

Soil Samples					
Sampling Locations	O-02	O-02	O-02	O-02	O-02
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	22-Jan-11	22-Jan-11	26-Jan-11	26-Jan-11	26-Jan-11
Report Number	Report X	Report X	Report Z	Report Z	Report Z

Soil Samples					
Sampling Locations	P-01	P-01	P-01	P-01	P-01
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	24-Jan-11	24-Jan-11	28-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report W	Report W	Report AB	Report AB	Report AB

Soil Samples					
Sampling Locations	P-02	P-02	P-02	P-02	P-02
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	25-Jan-11	25-Jan-11	28-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report Y	Report Y	Report AB	Report AD	Report AD

Soil Samples			
Sampling Locations	P-03	P-03	P-03
Sampling Depth	0.5m	1.5m	3.0m
Sampling Date	28-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report AB	Report AB	Report AC

Soil Samples			
Sampling Locations	P-04	P-04	P-04
Sampling Depth	0.5m	1.5m	3.0m
Sampling Date	27-Jan-11	28-Jan-11	28-Jan-11
Report Number	Report AA	Report AB	Report AB

Soil Samples					
Sampling Locations	P-05	P-05	P-05	P-05	P-05
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11
Report Number	Report AE	Report AE	Report AE	Report AE	Report AE

Soil Samples				
Sampling Locations	P-06	P-06	P-06	P-06
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	31-Jan-11	31-Jan-11	31-Jan-11	31-Jan-11
Report Number	Report AE	Report AE	Report AE	Report AE

Soil Samples			
Sampling Locations	P-07	P-07	P-07
Sampling Depth	0.5m	1.5m	3.0m
Sampling Date	27-Jan-11	27-Jan-11	28-Jan-11
Report Number	Report AA	Report AA	Report AB

Soil Samples					
Sampling Locations	P-08 + Dup	P-08	P-08	P-08	P-08
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	15-Jun-11	15-Jun-11	18-Jun-11	18-Jun-11	18-Jun-11
Report Number	Report AI	Report AI	Report AK	Report AK	Report AK

Soil Samples					
Sampling Locations	P-09	P-09	P-09	P-09	P-09
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	15-Jun-11	15-Jun-11	16-Jun-11	16-Jun-11	16-Jun-11
Report Number	Report AI	Report AI	Report AJ	Report AJ	Report AJ

Soil Samples					
Sampling Locations	P-10	P-10	P-10	P-10	P-10
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	15-Jun-11	15-Jun-11	17-Jun-11	17-Jun-11	17-Jun-11
Report Number	Report AI	Report AI	Report AJ	Report AJ	Report AJ

Soil Samples					
Sampling Locations	Q-01	Q-01	Q-01	Q-01	Q-01
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.95-5.85m	5.85-6.3m
Sampling Date	17-Feb-09	17-Feb-09	18-Feb-09	18-Feb-09	18-Feb-09
Report Number	Report E	Report E	Report G	Report G	Report G

Soil Samples					
Sampling Locations	Q-02	Q-02	Q-02	Q-02	Q-02
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.95-5.85m	5.85-6.2m
Sampling Date	12-Feb-09	12-Feb-09	14-Feb-09	14-Feb-09	14-Feb-09
Report Number	Report A	Report A	Report D	Report D	Report D

Soil Samples					
Sampling Locations	Q-03	Q-03	Q-03	Q-03	Q-03
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.95-5.4m	6-6.9m
Sampling Date	12-Feb-09	12-Feb-09	13-Feb-09	13-Feb-09	13-Feb-09
Report Number	Report B	Report B	Report C	Report C	Report C

Soil Samples						
Sampling Locations	Q-04	Q-04	Q-04	Q-04	Q-04	Q-04
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.95-5.85m	5.85-6.75m	6.75-7.2m
Sampling Date	17-Feb-09	17-Feb-09	17-Feb-09	17-Feb-09	17-Feb-09	17-Feb-09
Report Number	Report F	Report F	Report F	Report F	Report F	Report F

Soil Samples					
Sampling Locations	Q-05E	Q-05E	Q-05E	Q-05E	Q-05E
Sampling Depth	0.5-1.4m	1.5-2.4m	3-3.9m	4.95-5.85m	5.85-6.75m
Sampling Date	18-Feb-09	18-Feb-09	19-Feb-09	19-Feb-09	19-Feb-09
Report Number	Report H	Report H	Report I	Report I	Report I

Soil Samples					
Sampling Locations	Q-06	Q-06	Q-06	Q-06 + dup	Q-06
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	26-Jan-11	26-Jan-11	27-Jan-11	27-Jan-11	27-Jan-11
Report Number	Report Z	Report Z	Report AA	Report AB	Report AB

Soil Samples				
Sampling Locations	Q-07	Q-07	Q-07 + dup	Q-07
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	26-Jan-11	26-Jan-11	29-Jan-11	29-Jan-11
Report Number	Report Z	Report Z	Report AF	Report AF

Soil Samples			
Sampling Locations	R-01	R-01	R-01
Sampling Depth	0.5m	1.5m	3.0-3.45m
Sampling Date	26-Jan-11	26-Jan-11	27-Jan-11
Report Number	Report Z	Report Z	Report AA

Soil Samples					
Sampling Locations	R-02	R-02	R-02	R-02	R-02
Sampling Depth	0.5m	1.5m	3-3.45m	4.5-4.95m	6.0-6.45m
Sampling Date	21-Jan-11	21-Jan-11	24-Jan-11	24-Jan-11	25-Jan-11
Report Number	Report V	Report V	Report Y	Report Y	Report Y

Soil Samples				
Sampling Locations	R-03	R-03	R-03	R-03
Sampling Depth	0.5m	1.5m	3.0-3.45m	4.5-4.95m
Sampling Date	21-Jan-11	21-Jan-11	25-Jan-11	25-Jan-11
Report Number	Report V	Report V	Report Y	Report Y

Soil Samples				
Sampling Locations	R-04	R-04	R-04	R-04
Sampling Depth	0.5m	1.5m	3.0-3.45m	6.0-6.45m
Sampling Date	21-Jan-11	21-Jan-11	24-Jan-11	24-Jan-11
Report Number	Report V	Report V	Report W	Report W

Groundwater Samples					
Sampling Locations	N1-01	N1-02	N3-01	N3-02 + dup	N3-03A
Sampling Date	29-Jan-11	29-Jan-11	28-Jan-11	31-Jan-11	2-Feb-11
Report Number	Report AD	Report AD	Report AB	Report AE	Report AG

Note:
Samples collected at location Q-01, Q-02, Q-03, Q-04 and Q-05E were expressed 2108/XRL/EDH-Q01, 2108/XRL/EDH-Q02, 2108/XRL/EDH-Q03, 2108/XRL/EDH-Q04 and 2108/XRL/EDH-Q05E in the laboratory reports.

Groundwater Samples					
Sampling Locations	N3-04	N3-05	N3-06	N4-01	O-01
Sampling Date	29-Jan-11	31-Jan-11	29-Jan-11	28-Jan-11	29-Jan-11
Report Number	Report AD	Report AE	Report AD	Report AB	Report AD

Groundwater Samples					
Sampling Locations	O-02	P-01	P-02	P-05	P-06
Sampling Date	29-Jan-11	2-Feb-11	2-Feb-11	2-Feb-11	2-Feb-11
Report Number	Report AD	ReportAG	ReportAG	ReportAG	Report AG

Groundwater Samples					
Sampling Locations	P-08	P-09	P-10	Q-06	Q-07
Sampling Date	21-Jun-11	21-Jun-11	21-Jun-11	9-Feb-11	2-Feb-11
Report Number	Report AL	Report AL	Report AL	Report AH	Report AG

Groundwater Samples				
Sampling Locations	R-01	R-02 + Dup	R-03	R-04
Sampling Date	31-Jan-11	29-Jan-11	28-Jan-11	29-Jan-11
Report Number	Report AE	Report AD	Report AB	Report AD

Report No. A

HK0902747

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0902747
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 12-FEB-2009
Order number	: ----			Issue Date	: 02-MAR-2009
C-O-C number	: H004332			No. of samples received	: 2
Site	: ----			No. of samples analysed	: 2

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: 27-FEB-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: **HK0902747**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Sediment sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Sediment sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q02 (0.50-1.40M)	2108/XRL/EDH-Q02 (1.50-2.40M)			
				Client sampling date / time: 12-FEB-2009 15:00	12-FEB-2009 16:00			
				HK0902747-001	HK0902747-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**11.3**	**16.4**			
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**8**	**7**			
EG020: Lead	7439-92-1	1	mg/kg	**44**	**34**			
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG020: Nickel	7440-02-0	1	mg/kg	**8**	**5**			
EG020: Zinc	7440-66-6	1	mg/kg	**65**	**67**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**15**	**8**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5			
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0			
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5			
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5			
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5			
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5			
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0			

Sub-Matrix: SOIL			Client sample ID	2108/XRL/EDH-Q02 (0.50-1.40M)	2108/XRL/EDH-Q02 (1.50-2.40M)			
			Client sampling date / time	12-FEB-2009 15:00	12-FEB-2009 16:00			
Compound	CAS Number	LOR	Unit	HK0902747-001	HK0902747-002			
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5			
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg	**0.9**	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg	**0.8**	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	**1.1**	<1.0			
Benzo(a)pyrene	50-32-8	0.5	mg/kg	**0.7**	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	**0.6**	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	**0.6**	<0.5			
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	**0.7**	<0.5			
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg	<5.0	<5.0			
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	<0.2			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.9**	**98.1**			
Toluene-D8	2037-26-5	0.1	%	**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**101**			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.9**	**98.1**			
Toluene-D8	2037-26-5	0.1	%	**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**101**			
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**84.0**	**66.2**			
Phenol-d6	13127-88-3	0.1	%	**77.8**	**83.2**			
2.4.6-Tribromophenol	118-79-6	0.1	%	**83.5**	**72.9**			
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**82.2**	**62.6**			
2-Fluorobiphenyl	321-60-8	0.1	%	**86.4**	**80.2**			
4-Terphenyl-d14	1718-51-0	0.1	%	**72.8**	**71.2**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893709)								
HK0902637-003	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	63.6	63.2	0.7
HK0902753-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	14.7	15.0	1.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 897102)								
HK0902761-001	Anonymous	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 893697)								
HK0902747-002	2108/XRL/EDH-Q02 (1.50-2.40M)	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 896203)								
HK0902747-002	2108/XRL/EDH-Q02 (1.50-2.40M)	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	35	3.7
		EG020: Nickel	7440-02-0	1	mg/kg	5	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	75	12.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 893909)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 893909)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 893909) - Continued								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Methylene chloride**	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 893909)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895541)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	0.9	0.9	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	0.8	1.0	19.1
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.7	0.6	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	0.6	0.6	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.7	0.7	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	1.1	<1.0	9.7
EP-075C: Phthalate Esters (QC Lot: 895541)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)								
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: **SOIL**

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 897102)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	2 mg/kg ----	99.7 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 893697)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	108	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 896203)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.9	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	100	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	91.6	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	127	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	57.2	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	59.4	----	50	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	107	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.3	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.2	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	98.4	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.5	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 893909)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	---- <5	5.0 mg/kg ----	113 ----	---- ----	16 ----	138 ----	---- ----	---- ----
EP-074E: Halogenated Aliphatics (QC Lot: 893909)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895541)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	91.4	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	49	105	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541) - Continued											
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	95.7	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	88.2	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.0	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	104	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	92.2	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	61	105	----	----

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

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 893697)										
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	119	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 896203)										
HK0902747-001	2108/XRL/EDH-Q02 (0.50-1.40M)	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	96.7	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	114	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	96.0	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)										
HK0902747-002	2108/XRL/EDH-Q02 (1.50-2.40M)	**C6 - C8 Fraction**	----	3 mg/kg	125	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)										

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542) - Continued										
HK0902747-002	2108/XRL/EDH-Q02 (1.50-2.40M)	**C9 - C16 Fraction**	----	31 mg/kg	86.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	119	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. B

HK0902748

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 7
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0902748
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 12-FEB-2009
Order number	: ----			Issue Date	: 27-FEB-2009
C-O-C number	: H004231			No. of samples received	: 2
Site	: ----			No. of samples analysed	: 2

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: 27-FEB-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: **HK0902748**

Sample(s) were received in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q03 (0.5-1.40M)	2108/XRL/EDH-Q03 (1.50-2.40M)			
				Client sampling date / time: 12-FEB-2009 11:50	12-FEB-2009 13:10			
				HK0902748-001	HK0902748-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**15.1**	**16.3**			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**4**	**6**			
EG020: Lead	7439-92-1	1	mg/kg	**24**	**41**			
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG020: Nickel	7440-02-0	1	mg/kg	**4**	**4**			
EG020: Zinc	7440-66-6	1	mg/kg	**42**	**66**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**16**	**7**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5			
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0			
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5			
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5			
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5			
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5			
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0			
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5			

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q03 (0.5-1.40M)	2108/XRL/EDH-Q03 (1.50-2.40M)			
				Client sampling date / time	12-FEB-2009 11:50	12-FEB-2009 13:10			
Compound	CAS Number	LOR	Unit		HK0902748-001	HK0902748-002			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0			
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5			
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**97.2**	**101**			
Toluene-D8	2037-26-5	0.1	%		**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**99.8**	**101**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**97.2**	**101**			
Toluene-D8	2037-26-5	0.1	%		**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**99.8**	**101**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**76.0**	**65.2**			
Phenol-d6	13127-88-3	0.1	%		**89.8**	**86.6**			
2.4.6-Tribromophenol	118-79-6	0.1	%		**76.3**	**72.6**			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**76.9**	**65.6**			
2-Fluorobiphenyl	321-60-8	0.1	%		**81.9**	**79.3**			
4-Terphenyl-d14	1718-51-0	0.1	%		**86.4**	**73.2**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893709)								
HK0902637-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	63.6	63.2	0.7
HK0902753-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.7	15.0	1.8
EG: Metals and Major Cations (QC Lot: 893697)								
HK0902747-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 896203)								
HK0902747-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	35	3.7
		EG020: Nickel	7440-02-0	1	mg/kg	5	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	75	12.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)								
HK0902747-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)								
HK0902747-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)								
HK0902747-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 893909)								
HK0902747-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 893909)								
HK0902747-001	Anonymous	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)								
HK0902747-001	Anonymous	Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 893909)								
HK0902747-001	Anonymous	Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895541)								
HK0902747-001	Anonymous	Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)								
HK0902747-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	0.9	0.9	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	0.8	1.0	19.1
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.7	0.6	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	0.6	0.6	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.7	0.7	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	1.1	<1.0	9.7
EP-075C: Phthalate Esters (QC Lot: 895541)								
HK0902747-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)								
HK0902747-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 893697)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	108	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 896203)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.9	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	100	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	91.6	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	127	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	57.2	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	59.4	----	50	111	----	----

Matrix: **SOIL**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	107	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.3	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.2	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	98.4	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.5	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 893909)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	113	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 893909)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895541)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	91.4	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	95.7	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	88.2	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.0	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	104	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	92.2	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	61	105	----	----

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

Matrix: **SOIL**

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 893697)										
HK0902747-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	119	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 896203)										
HK0902747-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	96.7	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	114	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	96.0	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)										
HK0902747-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	125	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)										
HK0902747-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	86.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	119	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. C

HK0902751

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 7
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0902751
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 13-FEB-2009
Order number	: ----			Issue Date	: 02-MAR-2009
C-O-C number	: H004333			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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: 27-FEB-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: **HK0902751**

Sample(s) were received in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q03 (3.0-3.90M)	2108/XRL/EDH-Q03 (4.95-5.40M)	2108/XRL/EDH-Q03 (6.00-6.90M)		
				Client sampling date / time: 13-FEB-2009 10:20	13-FEB-2009 10:10	13-FEB-2009 14:45		
				HK0902751-001	HK0902751-002	HK0902751-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**7.6**	**12.0**	**8.3**		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**11**	**23**	**5**		
EG020: Lead	7439-92-1	1	mg/kg	**49**	**67**	**48**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**4**	**4**	**2**		
EG020: Zinc	7440-66-6	1	mg/kg	**142**	**166**	**72**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**16**	**12**	**9**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q03 (3.0-3.90M)	2108/XRL/EDH-Q03 (4.95-5.40M)	2108/XRL/EDH-Q03 (6.00-6.90M)		
				Client sampling date / time	13-FEB-2009 10:20	13-FEB-2009 10:10	13-FEB-2009 14:45		
Compound	CAS Number	LOR	Unit		HK0902751-001	HK0902751-002	HK0902751-003		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.9**	**99.6**	**98.3**		
Toluene-D8	2037-26-5	0.1	%		**100**	**100**	**99.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**	**99.6**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.9**	**99.6**	**98.3**		
Toluene-D8	2037-26-5	0.1	%		**100**	**100**	**99.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**	**99.6**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**76.5**	**70.4**	**60.0**		
Phenol-d6	13127-88-3	0.1	%		**87.0**	**87.8**	**84.0**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**80.2**	**75.4**	**69.0**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**80.2**	**69.8**	**64.2**		
2-Fluorobiphenyl	321-60-8	0.1	%		**88.2**	**83.0**	**74.6**		
4-Terphenyl-d14	1718-51-0	0.1	%		**74.3**	**70.8**	**65.8**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893709)								
HK0902637-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	63.6	63.2	0.7
HK0902753-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.7	15.0	1.8
EG: Metals and Major Cations (QC Lot: 893697)								
HK0902747-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 896203)								
HK0902747-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	35	3.7
		EG020: Nickel	7440-02-0	1	mg/kg	5	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	75	12.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)								
HK0902747-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)								
HK0902747-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)								
HK0902747-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 893909)								
HK0902747-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 893909)								
HK0902747-001	Anonymous	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)								
HK0902747-001	Anonymous	Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 893909)								
HK0902747-001	Anonymous	Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895541)								
HK0902747-001	Anonymous	Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)								
HK0902747-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	0.9	0.9	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	0.8	1.0	19.1
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.7	0.6	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	0.6	0.6	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.7	0.7	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	1.1	<1.0	9.7
EP-075C: Phthalate Esters (QC Lot: 895541)								
HK0902747-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)								
HK0902747-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 893697)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	108	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 896203)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.9	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	100	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	91.6	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	127	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	57.2	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	59.4	----	50	111	----	----

Matrix: **SOIL**

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	107	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.3	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.2	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	98.4	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.5	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 893909)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	---- <5	5.0 mg/kg ----	113 ----	---- ----	16 ----	138 ----	---- ----	---- ----
EP-074E: Halogenated Aliphatics (QC Lot: 893909)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895541)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	91.4	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	95.7	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	88.2	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.0	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	104	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	92.2	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	61	105	----	----

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

Matrix: **SOIL**

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 893697)										
HK0902747-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	119	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 896203)										
HK0902747-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	96.7	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	114	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	96.0	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)										
HK0902747-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	125	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)										
HK0902747-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	86.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	119	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. D

HK0902761

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0902761
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 14-FEB-2009
Order number	: ----			Issue Date	: 02-MAR-2009
C-O-C number	: H004334			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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: 27-FEB-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: **HK0902761**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q02 (3.00-3.90M)	2108/XRL/EDH-Q02 (4.95-5.85M)	2108/XRL/EDH-Q02 (5.85-6.20M)		
				Client sampling date / time: 14-FEB-2009 09:20	14-FEB-2009 10:20	14-FEB-2009 11:10		
				HK0902761-001	HK0902761-002	HK0902761-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**10.5**	**14.5**	**16.7**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**16**	**17**	**12**		
EG020: Lead	7439-92-1	1	mg/kg	**37**	**89**	**95**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**3**	**4**	**4**		
EG020: Zinc	7440-66-6	1	mg/kg	**131**	**180**	**141**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**	**12**	**3**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q02 (3.00-3.90M)	2108/XRL/EDH-Q02 (4.95-5.85M)	2108/XRL/EDH-Q02 (5.85-6.20M)		
				Client sampling date / time	14-FEB-2009 09:20	14-FEB-2009 10:20	14-FEB-2009 11:10		
Compound	CAS Number	LOR	Unit		HK0902761-001	HK0902761-002	HK0902761-003		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.9**	**101**	**99.2**		
Toluene-D8	2037-26-5	0.1	%		**100**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**100**	**100**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.9**	**101**	**99.2**		
Toluene-D8	2037-26-5	0.1	%		**100**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**100**	**100**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**56.2**	**47.3**	**44.3**		
Phenol-d6	13127-88-3	0.1	%		**72.4**	**68.8**	**62.7**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**52.0**	**59.4**	**52.6**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**58.2**	**59.7**	**47.2**		
2-Fluorobiphenyl	321-60-8	0.1	%		**65.9**	**68.5**	**55.9**		
4-Terphenyl-d14	1718-51-0	0.1	%		**57.4**	**57.9**	**57.3**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 893709)								
HK0902637-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	63.6	63.2	0.7
HK0902753-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.7	15.0	1.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 897102)								
HK0902761-001	2108/XRL/EDH-Q02 (3.00-3.90M)	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 893697)								
HK0902747-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 896203)								
HK0902747-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	35	3.7
		EG020: Nickel	7440-02-0	1	mg/kg	5	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	75	12.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)								
HK0902747-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)								
HK0902747-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)								
HK0902747-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 893909)								
HK0902747-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 893909)								
HK0902747-001	Anonymous	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)								
HK0902747-001	Anonymous	Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 893909)								

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074L: Methyl-tert-butyl Ether (QC Lot: 893909) - Continued								
HK0902747-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895541)								
HK0902747-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)								
HK0902747-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	0.9	0.9	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	0.8	1.0	19.1
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	0.7	0.6	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	0.6	0.6	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	0.6	0.6	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	0.7	0.7	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	1.1	<1.0	9.7
EP-075C: Phthalate Esters (QC Lot: 895541)								
HK0902747-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)								
HK0902747-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 897102)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	2 mg/kg ----	99.7 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 893697)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	108	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 896203)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.9	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	100	----	85	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896203) - Continued											
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	91.6	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	127	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	57.2	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	59.4	----	50	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 893909)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	107	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.3	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.2	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	98.4	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.5	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 893909)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	113	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 893909)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 893909)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895541)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	91.4	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	95.7	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	88.2	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.0	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	104	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	51	111	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895541) - Continued											
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	92.2	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895541)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	61	105	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 893697)										
HK0902747-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	119	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 896203)										
HK0902747-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	96.7	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	114	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	96.0	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 893910)										
HK0902747-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	125	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895542)										
HK0902747-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	86.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	119	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates - Continued			
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. E

HK0902905

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0902905
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 17-FEB-2009
Order number	: ----			Issue Date	: 03-MAR-2009
C-O-C number	: H004336			No. of samples received	: 2
Site	: ----			No. of samples analysed	: 2

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: 27-FEB-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: **HK0902905**

Sample(s) were received in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q01 (0.50-1.40M)	2108/XRL/EDH-Q01 (1.50-2.40M)			
				Client sampling date / time: 17-FEB-2009 11:10	17-FEB-2009 14:00			
				HK0902905-001	HK0902905-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**17.5**	**17.6**			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**9**	**8**			
EG020: Lead	7439-92-1	1	mg/kg	**41**	**62**			
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG020: Nickel	7440-02-0	1	mg/kg	**5**	**6**			
EG020: Zinc	7440-66-6	1	mg/kg	**62**	**77**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**16**	**9**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5			
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0			
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5			
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5			
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5			
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5			
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0			
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5			

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q01 (0.50-1.40M)	2108/XRL/EDH-Q01 (1.50-2.40M)			
				Client sampling date / time	17-FEB-2009 11:10	17-FEB-2009 14:00			
Compound	CAS Number	LOR	Unit		HK0902905-001	HK0902905-002			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0			
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5			
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**102**	**101**			
Toluene-D8	2037-26-5	0.1	%		**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**100**	**101**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**102**	**101**			
Toluene-D8	2037-26-5	0.1	%		**100**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**100**	**101**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**76.4**	**84.9**			
Phenol-d6	13127-88-3	0.1	%		**71.5**	**76.4**			
2.4.6-Tribromophenol	118-79-6	0.1	%		**59.2**	**66.9**			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**71.7**	**83.3**			
2-Fluorobiphenyl	321-60-8	0.1	%		**60.2**	**70.6**			
4-Terphenyl-d14	1718-51-0	0.1	%		**68.7**	**83.8**			

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 896210)								
HK0902808-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	0.2	0.2	0.0
HK0902912-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	15.7	15.8	0.0
EG: Metals and Major Cations (QC Lot: 896254)								
HK0902753-002	Anonymous	**EG020: Mercury**	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	5	4	0.0
		EG020: Lead	7439-92-1	1	mg/kg	8	10	15.8
		EG020: Nickel	7440-02-0	1	mg/kg	5	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	88	75	15.5
HK0902912-002	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	44	45	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	72	7.1
EG: Metals and Major Cations (QC Lot: 899244)								
HK0902905-002	2108/XRL/EDH-Q01 (1.50-2.40M)	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK0903023-003	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 895463)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 895463)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 895463)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 895463)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 895463)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895465)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 895465)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895465)								
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896254)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	86.3	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	96.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	105	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	93.1	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 899244)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	106	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	122	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	85.3	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	105	----	50	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 895463)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.7	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	96.7	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	96.7	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	94.5	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	96.3	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 895463)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	106	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 895463)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	101	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 895463)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	111	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895465)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	79.1	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	75.1	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	78.5	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	89.0	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	90.8	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	90.2	----	58	111	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465) - Continued											
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	83.3	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	91.7	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	88.4	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	93.4	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	88.6	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	80.7	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	84.1	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895465)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	79.0	----	61	105	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896254)										
HK0902753-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.6	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	77.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 899244)										
HK0902905-001	2108/XRL/EDH-Q01 (0.50-1.40M)	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	124	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)										
HK0902905-002	2108/XRL/EDH-Q01 (1.50-2.40M)	**C6 - C8 Fraction**	----	3 mg/kg	110	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)										
HK0902905-002	2108/XRL/EDH-Q01 (1.50-2.40M)	**C9 - C16 Fraction**	----	31 mg/kg	101	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	121	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	*CAS Number*	*Recovery Limits (%)*	
		Low	*High*
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. F

HK0902912

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **MASS TRANSIT RAILWAY CORPORATION**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 10**
Contact	: **MR TOM LO**	Contact	: **Wong Wai Man, Alice**	**Work Order**	: **HK0902912**
Address	: **6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **tom@gce.com.hk**	E-mail	: **Alice.Wong@alsenviro.com**		
Telephone	: **+852 2365 9123**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2765 8034**	Facsimile	: **+852 2610 2021**		
Project	: **GROUND INVESTIGATION FOR EXPRESS RAIL LINK**	Quote number	: **----**	Date Samples Received	: **17-FEB-2009**
Order number	: **----**			Issue Date	: **05-MAR-2009**
C-O-C number	: **H004335**			No. of samples received	: **6**
Site	: **----**			No. of samples analysed	: **6**

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: 27-FEB-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: **HK0902912**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q04 (0.5-1.40M)	2108/XRL/EDH-Q04 (1.50-2.40M)	2108/XRL/EDH-Q04 (3.0-3.90M)	2108/XRL/EDH-Q04 (4.95-5.85M)	2108/XRL/EDH-Q04 (5.85-6.75M)
				Client sampling date / time: 17-FEB-2009 08:40	17-FEB-2009 09:35	17-FEB-2009 11:10	17-FEB-2009 14:10	17-FEB-2009 14:50
				HK0902912-001	HK0902912-002	HK0902912-003	HK0902912-004	HK0902912-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	14.0	15.7	17.7	19.4	15.5
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	8	6	11	14	8
EG020: Lead	7439-92-1	1	mg/kg	31	44	46	86	34
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Nickel	7440-02-0	1	mg/kg	5	4	4	3	3
EG020: Zinc	7440-66-6	1	mg/kg	36	67	125	138	59
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	39	7	7	8	2
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	2630	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5	<5
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5	<5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q04 (0.5-1.40M)	2108/XRL/EDH-Q04 (1.50-2.40M)	2108/XRL/EDH-Q04 (3.0-3.90M)	2108/XRL/EDH-Q04 (4.95-5.85M)	2108/XRL/EDH-Q04 (5.85-6.75M)
				Client sampling date / time	17-FEB-2009 08:40	17-FEB-2009 09:35	17-FEB-2009 11:10	17-FEB-2009 14:10	17-FEB-2009 14:50
Compound	CAS Number	LOR	Unit		HK0902912-001	HK0902912-002	HK0902912-003	HK0902912-004	HK0902912-005
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	**2540**	<5.0	**31.1**	<5.0
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**99.5**	**99.7**	**101**	**103**	**98.5**
Toluene-D8	2037-26-5	0.1	%		**100**	**99.7**	**99.5**	**99.7**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%		**99.6**	**99.6**	**101**	**100**	**100**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**99.5**	**99.7**	**101**	**103**	**98.5**
Toluene-D8	2037-26-5	0.1	%		**100**	**99.7**	**99.5**	**99.7**	**100**
4-Bromofluorobenzene	460-00-4	0.1	%		**99.6**	**99.6**	**101**	**100**	**100**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**82.7**	**36.9**	**88.0**	**82.8**	**93.3**
Phenol-d6	13127-88-3	0.1	%		**95.0**	**41.1**	**78.8**	**78.1**	**87.0**
2.4.6-Tribromophenol	118-79-6	0.1	%		**93.5**	**33.5**	**75.5**	**65.4**	**69.6**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**88.3**	**38.4**	**87.9**	**80.1**	**96.0**
2-Fluorobiphenyl	321-60-8	0.1	%		**92.8**	**67.6**	**78.1**	**75.1**	**82.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**103**	**35.8**	**94.8**	**81.8**	**93.1**

Sub-Matrix: SOIL			Client sample ID	2108/XRL/EDH-Q04 (6.75-7.20M)				
			Client sampling date / time	17-FEB-2009 15:40				
Compound	CAS Number	LOR	Unit	HK0902912-006				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**25.1**				
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2				
EG020: Copper	7440-50-8	1	mg/kg	**5**				
EG020: Lead	7439-92-1	1	mg/kg	**56**				
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2				
EG020: Nickel	7440-02-0	1	mg/kg	**9**				
EG020: Zinc	7440-66-6	1	mg/kg	**76**				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**21**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5				
Toluene	108-88-3	0.5	mg/kg	<0.5				
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5				
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0				
Styrene	100-42-5	0.5	mg/kg	<0.5				
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5				
2-Butanone (MEK)	78-93-3	5	mg/kg	<5				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5				
Trichloroethene	79-01-6	0.5	mg/kg	<0.5				
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5				
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0				
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5				
EP-075B: Polyaromatic Hydrocarbons (PAHs)								

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q04 (6.75-7.20M)				
				Client sampling date / time	17-FEB-2009 15:40				
Compound	CAS Number	LOR	Unit		HK0902912-006				
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Naphthalene	91-20-3	0.5	mg/kg		<0.5				
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5				
Acenaphthene	83-32-9	0.5	mg/kg		<0.5				
Fluorene	86-73-7	0.5	mg/kg		<0.5				
Phenanthrene	85-01-8	0.5	mg/kg		<0.5				
Anthracene	120-12-7	0.5	mg/kg		<0.5				
Fluoranthene	206-44-0	0.5	mg/kg		<0.5				
Pyrene	129-00-0	0.5	mg/kg		<0.5				
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5				
Chrysene	218-01-9	0.5	mg/kg		<0.5				
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0				
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5				
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5				
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5				
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5				
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0				
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2				
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**99.9**				
Toluene-D8	2037-26-5	0.1	%		**99.0**				
4-Bromofluorobenzene	460-00-4	0.1	%		**100**				
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**99.9**				
Toluene-D8	2037-26-5	0.1	%		**99.0**				
4-Bromofluorobenzene	460-00-4	0.1	%		**100**				
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**86.1**				
Phenol-d6	13127-88-3	0.1	%		**75.5**				
2.4.6-Tribromophenol	118-79-6	0.1	%		**63.3**				
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**85.2**				
2-Fluorobiphenyl	321-60-8	0.1	%		**77.2**				
4-Terphenyl-d14	1718-51-0	0.1	%		**81.7**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 896210)								
HK0902808-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	0.2	0.2	0.0
HK0902912-002	2108/XRL/EDH-Q04 (1.50-2.40M)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.7	15.8	0.0
EG: Metals and Major Cations (QC Lot: 896254)								
HK0902753-002	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	5	4	0.0
		EG020: Lead	7439-92-1	1	mg/kg	8	10	15.8
		EG020: Nickel	7440-02-0	1	mg/kg	5	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	88	75	15.5
HK0902912-002	2108/XRL/EDH-Q04 (1.50-2.40M)	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	44	45	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	67	72	7.1
EG: Metals and Major Cations (QC Lot: 899244)								
HK0902905-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0903023-003	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)								
HK0902905-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)								
HK0902905-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 895463)								
HK0902905-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 895463)								
HK0902905-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 895463)								
HK0902905-001	Anonymous	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 895463) - Continued								
HK0902905-001	Anonymous	**Tetrachloroethene**	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 895463)								
HK0902905-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 895463)								
HK0902905-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 895465)								
HK0902905-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465)								
HK0902905-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 895465)								
HK0902905-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895465)								
HK0902905-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896254)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	86.3	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	96.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	105	----	85	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896254) - Continued											
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	93.1	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 899244)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	106	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	122	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	85.3	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	105	----	50	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 895463)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	98.7	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	96.7	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	96.7	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	94.5	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	96.3	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 895463)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	106	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 895463)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	101	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 895463)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	111	----	59	142	----	----
EP-075A: Phenols (QC Lot: 895465)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	79.1	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	75.1	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	78.5	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	89.0	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	90.8	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	90.2	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.1	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	83.3	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	91.7	----	52	113	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 895465) - Continued											
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	88.4	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	93.4	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	88.6	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	80.7	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	84.1	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 895465)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	79.0	----	61	105	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 896254)										
HK0902753-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	87.6	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	77.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 899244)										
HK0902905-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	124	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895464)										
HK0902905-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	110	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 895466)										
HK0902905-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	101	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	121	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate - Continued			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. G

HK0903023

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 8
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0903023
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 18-FEB-2009
Order number	: ----			Issue Date	: 04-MAR-2009
C-O-C number	: H004337			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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: 27-FEB-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: **HK0903023**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q01 (3.0-3.90M)	2108/XRL/EDH-Q01 (4.95-5.85M)	2108/XRL/EDH-Q01 (5.85-6.30M)		
				Client sampling date / time: 18-FEB-2009 10:10	18-FEB-2009 11:30	18-FEB-2009 13:30		
				HK0903023-001	HK0903023-002	HK0903023-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**17.6**	**19.5**	**18.3**		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	**0.4**	**0.2**		
EG020: Copper	7440-50-8	1	mg/kg	**14**	**41**	**24**		
EG020: Lead	7439-92-1	1	mg/kg	**71**	**74**	**98**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**6**	**6**	**6**		
EG020: Zinc	7440-66-6	1	mg/kg	**158**	**264**	**240**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**9**	**8**	**10**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q01 (3.0-3.90M)	2108/XRL/EDH-Q01 (4.95-5.85M)	2108/XRL/EDH-Q01 (5.85-6.30M)		
				Client sampling date / time	18-FEB-2009 10:10	18-FEB-2009 11:30	18-FEB-2009 13:30		
Compound	CAS Number	LOR	Unit		HK0903023-001	HK0903023-002	HK0903023-003		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**96.2**	**96.2**	**95.8**		
Toluene-D8	2037-26-5	0.1	%		**100**	**101**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**103**	**103**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**96.2**	**96.2**	**95.8**		
Toluene-D8	2037-26-5	0.1	%		**100**	**101**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**103**	**103**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**40.7**	**29.1**	**34.0**		
Phenol-d6	13127-88-3	0.1	%		**82.8**	**66.1**	**64.8**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**82.1**	**64.5**	**81.4**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**61.6**	**63.1**	**67.3**		
2-Fluorobiphenyl	321-60-8	0.1	%		**91.3**	**65.9**	**66.3**		
4-Terphenyl-d14	1718-51-0	0.1	%		**101**	**88.6**	**98.3**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 897749)								
HK0902967-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	29.5	29.0	1.6
EG: Metals and Major Cations (QC Lot: 897722)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	14	15	8.3
		EG020: Lead	7439-92-1	1	mg/kg	71	80	11.4
		EG020: Nickel	7440-02-0	1	mg/kg	6	6	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	158	169	6.8
EG: Metals and Major Cations (QC Lot: 899244)								
HK0902905-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0903023-003	2108/XRL/EDH-Q01 (5.85-6.30M)	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 897908)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 897908)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 897908)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 897908)								

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 897908) - Continued								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 897908)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 897903)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 897903)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 897903)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 897903)								
HK0903023-001	2108/XRL/EDH-Q01 (3.0-3.90M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 897722)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	87.0	----	85	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 897722) - Continued											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	95.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.5	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	92.1	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	92.9	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 899244)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	106	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.0	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	83.2	----	50	111	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	87.5	----	57	141	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 897908)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.5	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	101	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	100	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 897908)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	98.2	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 897908)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 897908)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	59	142	----	----
EP-075A: Phenols (QC Lot: 897903)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	71.8	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 897903)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	77.3	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	70.8	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	76.0	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	70.8	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	73.3	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	80.3	----	53	109	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 897903) - Continued											
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	73.9	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	76.4	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	71.4	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	75.9	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	63.8	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	# 66.1	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	87.1	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 897903)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	69.6	----	61	105	----	----

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

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 897722)										
HK0902967-001	Anonymous	EG020: Cadmium	7440-43-9	5 mg/kg	93.7	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	92.0	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	94.7	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 899244)										
HK0902905-001	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	2.5 mg/kg	124	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)										
HK0903023-002	2108/XRL/EDH-Q01 (4.95-5.85M)	C9 - C16 Fraction	----	31 mg/kg	72.6	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	83.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)										
HK0903023-002	2108/XRL/EDH-Q01 (4.95-5.85M)	C6 - C8 Fraction	----	3 mg/kg	95.9	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. H

HK0903026

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 7
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0903026
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 19-FEB-2009
Order number	: ----			Issue Date	: 04-MAR-2009
C-O-C number	: H004338			No. of samples received	: 2
Site	: ----			No. of samples analysed	: 2

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: 27-FEB-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: **HK0903026**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q05E (0.50-1.40M)	2108/XRL/EDH-Q05E (1.50-2.40M)			
				Client sampling date / time: 18-FEB-2009 13:50	18-FEB-2009 15:20			
				HK0903026-001	HK0903026-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**17.8**	**16.6**			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**13**	**10**			
EG020: Lead	7439-92-1	1	mg/kg	**57**	**55**			
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG020: Nickel	7440-02-0	1	mg/kg	**5**	**5**			
EG020: Zinc	7440-66-6	1	mg/kg	**95**	**120**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**32**	**7**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	**1**	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5			
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0			
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5			
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5			
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5			
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5			
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0			
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5			

Sub-Matrix: SOIL			Client sample ID	2108/XRL/EDH-Q05E (0.50-1.40M)	2108/XRL/EDH-Q05E (1.50-2.40M)			
			Client sampling date / time	18-FEB-2009 13:50	18-FEB-2009 15:20			
Compound	CAS Number	LOR	Unit	HK0903026-001	HK0903026-002			
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0			
Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5			
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5			
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg	<5.0	**68.1**			
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	<0.2			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.1**	**89.6**			
Toluene-D8	2037-26-5	0.1	%	**100**	**99.3**			
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**102**			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**95.1**	**89.6**			
Toluene-D8	2037-26-5	0.1	%	**100**	**99.3**			
4-Bromofluorobenzene	460-00-4	0.1	%	**102**	**102**			
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**30.2**	**26.5**			
Phenol-d6	13127-88-3	0.1	%	**78.5**	**69.0**			
2.4.6-Tribromophenol	118-79-6	0.1	%	**70.3**	**64.6**			
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**60.5**	**57.8**			
2-Fluorobiphenyl	321-60-8	0.1	%	**70.4**	**67.5**			
4-Terphenyl-d14	1718-51-0	0.1	%	**75.2**	**61.1**			

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 897749)								
HK0902967-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	29.5	29.0	1.6
EG: Metals and Major Cations (QC Lot: 897722)								
HK0903023-001	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	14	15	8.3
		EG020: Lead	7439-92-1	1	mg/kg	71	80	11.4
		EG020: Nickel	7440-02-0	1	mg/kg	6	6	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	158	169	6.8
EG: Metals and Major Cations (QC Lot: 899244)								
HK0902905-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK0903023-003	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)								
HK0903023-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)								
HK0903023-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 897908)								
HK0903023-001	Anonymous	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 897908)								
HK0903023-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 897908)								
HK0903023-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 897908)								
HK0903023-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 897908)								
HK0903023-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 897903)								
HK0903023-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 897903)								
HK0903023-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 897903)								
HK0903023-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 897903)								
HK0903023-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 897722)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	87.0	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	95.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.5	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	92.1	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	92.9	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 899244)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	2.5 mg/kg	106	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.0	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	83.2	----	50	111	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	87.5	----	57	141	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 897908)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.5	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	101	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	100	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 897908)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	98.2	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 897908)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 897908)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	59	142	----	----
EP-075A: Phenols (QC Lot: 897903)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	71.8	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 897903)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	77.3	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	70.8	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	76.0	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	70.8	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	73.3	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	80.3	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	73.9	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	76.4	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	71.4	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	57	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	75.9	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	63.8	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	# 66.1	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.1	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	87.1	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 897903)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	69.6	----	61	105	----	----

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

Matrix: SOIL

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 897722)										
HK0902967-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.7	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	92.0	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	94.7	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 899244)										
HK0902905-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	2.5 mg/kg	124	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897904)										
HK0903023-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	72.6	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	83.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 897909)										
HK0903023-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	95.9	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. I

HK0903275

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **MASS TRANSIT RAILWAY CORPORATION**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 8**
Contact	: **MR TOM LO**	Contact	: **Wong Wai Man, Alice**	**Work Order**	: **HK0903275**
Address	: **6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **tom@gce.com.hk**	E-mail	: **Alice.Wong@alsenviro.com**		
Telephone	: **+852 2365 9123**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2765 8034**	Facsimile	: **+852 2610 2021**		
Project	: **GROUND INVESTIGATION FOR EXPRESS RAIL LINK**	Quote number	: **----**	Date Samples Received	: **19-FEB-2009**
Order number	: **----**			Issue Date	: **06-MAR-2009**
C-O-C number	: **H004339**			No. of samples received	: **4**
Site	: **----**			No. of samples analysed	: **3**

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: 27-FEB-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: **HK0903275**

Sample(s) were received in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/EDH-Q05E (3.0-3.90M)	2108/XRL/EDH-Q05E (4.95-5.85M)	2108/XRL/EDH-Q05E (5.85-6.75M)		
				Client sampling date / time: 19-FEB-2009 09:00	19-FEB-2009 10:20	19-FEB-2009 11:30		
				HK0903275-001	HK0903275-002	HK0903275-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**21.5**	**9.0**	**11.3**		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**10**	**22**	**9**		
EG020: Lead	7439-92-1	1	mg/kg	**64**	**51**	**55**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**5**	**4**	**2**		
EG020: Zinc	7440-66-6	1	mg/kg	**155**	**489**	**203**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**10**	**9**	**16**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		
EP-075A: Phenols								
Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	<0.5		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/EDH-Q05E (3.0-3.90M)	2108/XRL/EDH-Q05E (4.95-5.85M)	2108/XRL/EDH-Q05E (5.85-6.75M)		
				Client sampling date / time	19-FEB-2009 09:00	19-FEB-2009 10:20	19-FEB-2009 11:30		
Compound	CAS Number	LOR	Unit		HK0903275-001	HK0903275-002	HK0903275-003		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	**356**	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**95.2**	**96.0**	**95.5**		
Toluene-D8	2037-26-5	0.1	%		**100**	**98.6**	**99.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**104**	**104**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**95.2**	**96.0**	**95.5**		
Toluene-D8	2037-26-5	0.1	%		**100**	**98.6**	**99.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**104**	**104**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**49.7**	**65.9**	**52.7**		
Phenol-d6	13127-88-3	0.1	%		**43.8**	**84.9**	**49.9**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**48.6**	**94.2**	**73.1**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**49.5**	**80.7**	**51.2**		
2-Fluorobiphenyl	321-60-8	0.1	%		**47.5**	**93.8**	**56.4**		
4-Terphenyl-d14	1718-51-0	0.1	%		**42.0**	**71.6**	**66.0**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 902020)								
HK0903275-001	2108/XRL/EDH-Q05E (3.0-3.90M)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	21.5	21.6	0.5
EG: Metals and Major Cations (QC Lot: 900985)								
HK0902960-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
HK0903250-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EG: Metals and Major Cations (QC Lot: 903418)								
HK0903275-002	2108/XRL/EDH-Q05E (4.95-5.85M)	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	22	25	9.8
		EG020: Lead	7439-92-1	1	mg/kg	51	60	17.0
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	489	408	18.1
HK0903434-001	Anonymous	**EG020: Mercury**	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	0.3	0.3	0.0
		EG020: Copper	7440-50-8	1	mg/kg	10	10	0.0
		EG020: Lead	7439-92-1	1	mg/kg	33	31	5.2
		EG020: Nickel	7440-02-0	1	mg/kg	3	2	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	144	131	9.7
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900842)								
HK0902960-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900852)								
HK0902960-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 900851)								
HK0902960-001	Anonymous	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 900851)								
HK0902960-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 900851)								
HK0902960-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 900851) - Continued								
HK0902960-001	Anonymous	**Methylene chloride**	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 900851)								
HK0902960-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 900851)								
HK0902960-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-075A: Phenols (QC Lot: 900841)								
HK0902960-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 900841)								
HK0902960-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 900841)								
HK0902960-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 900841)								
HK0902960-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 900985)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	103	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 903418)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	94.6	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	96.4	----	85	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 903418) - Continued											
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	90.2	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	91.4	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.0	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900842)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	88.3	----	45	122	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	95.2	----	50	111	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900852)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	91.4	----	57	141	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 900851)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	102	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	97.3	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	98.8	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	96.0	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.3	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 900851)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	113	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 900851)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	101	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 900851)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	107	----	59	142	----	----
EP-075A: Phenols (QC Lot: 900841)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	73.9	----	50	103	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 900841)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	69.7	----	58	102	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	75.6	----	49	105	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	82.6	----	59	105	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	83.8	----	62	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	85.8	----	58	111	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	77.8	----	53	109	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	78.8	----	60	114	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	86.8	----	59	113	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.9	----	52	113	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	84.8	----	57	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 900841) - Continued											
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	83.5	----	63	117	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	79.9	----	51	111	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	74.5	----	72	111	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.3	----	67	114	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	76.3	----	68	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 900841)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	81.9	----	61	105	----	----

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

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 900985)										
HK0902960-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	102	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 903418)										
HK0903275-001	2108/XRL/EDH-Q05E (3.0-3.90M)	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	79.7	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	114	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	83.8	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900842)										
HK0902960-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	78.6	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	105	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 900852)										
HK0902960-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	86.5	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137

Report No. J

HK0905257

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 15
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905257
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 18-MAR-2009
Order number	: ----			Issue Date	: 16-APR-2009
C-O-C number	: H004742			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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: 27-MAR-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: **HK0905257**

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M01 (0.50-1.40M)	2108/XRL/M01 (1.50-2.40M)	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)		
				Client sampling date / time: [18-MAR-2009]	[18-MAR-2009]	[18-MAR-2009]		
				HK0905257-001	HK0905257-002	HK0905257-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**19.1**	**13.9**	**19.8**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**9**	**6**	**9**		
EG020: Lead	7439-92-1	1	mg/kg	**55**	**43**	**58**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**9**	**5**	**9**		
EG020: Zinc	7440-66-6	1	mg/kg	**67**	**76**	**58**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**15**	**13**	**14**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M01 (0.50-1.40M)	2108/XRL/M01 (1.50-2.40M)	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)		
				Client sampling date / time	[18-MAR-2009]	[18-MAR-2009]	[18-MAR-2009]		
Compound	CAS Number	LOR	Unit		HK0905257-001	HK0905257-002	HK0905257-003		
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**	**1**		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**96.7**	**99.8**	**97.4**		
Toluene-D8	2037-26-5	0.1	%		**98.7**	**98.8**	**105**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**99.5**	**101**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**96.7**	**99.8**	**97.4**		
Toluene-D8	2037-26-5	0.1	%		**98.7**	**98.8**	**105**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**99.5**	**101**		

Sub-Matrix: **SOIL**				*Client sample ID*	**2108/XRL/M01 (0.50-1.40M)**	**2108/XRL/M01 (1.50-2.40M)**	**2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)**		
				Client sampling date / time	[18-MAR-2009]	[18-MAR-2009]	[18-MAR-2009]		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905257-001**	**HK0905257-002**	**HK0905257-003**		
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**62.5**	**88.0**	**81.2**		
Phenol-d6	13127-88-3	0.1	%		**59.3**	**83.6**	**78.0**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**58.5**	**87.8**	**78.9**		
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**70.4**	**97.2**	**79.5**		
2-Fluorobiphenyl	321-60-8	0.1	%		**66.4**	**94.2**	**86.3**		
4-Terphenyl-d14	1718-51-0	0.1	%		**72.2**	**97.6**	**93.0**		
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**65.0**	**93.2**	**56.0**		
Dibutylchlorendate	1770-80-5	0.1	%		**68.4**	**88.6**	**58.8**		

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M01 (0.50-1.40M)**	**2108/XRL/M01 (1.50-2.40M)**	**2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)**		
				Client sampling date / time	[18-MAR-2009]	[18-MAR-2009]	[18-MAR-2009]		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905257-001**	**HK0905257-002**	**HK0905257-003**		
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2	<0.2		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 926756)								
HK0905167-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	13.4	12.7	5.4
HK0905264-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	15.4	15.6	0.8
EA/ED: Physical and Aggregate Properties (QC Lot: 939139)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.8	20.9	5.6
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 928467)								
HK0905257-002	2108/XRL/M01 (1.50-2.40M)	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 941877)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 926718)								
HK0905066-006	Anonymous	**EG020: Mercury**	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0
		EG020: Copper	7440-50-8	1	mg/kg	69	70	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	37	7.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	6	19.3
		EG020: Zinc	7440-66-6	20	mg/kg	88	71	20.7
HK0905121-003	Anonymous	**EG020: Mercury**	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	<1	<1	0.0
		EG020: Lead	7439-92-1	1	mg/kg	4	4	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	1	1	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	46	43	7.1
EG: Metals and Major Cations (QC Lot: 926735)								
HK0905056-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
HK0905271-003	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EG: Metals and Major Cations (QC Lot: 939049)								
HK0905884-011	Anonymous	**EG020: Cadmium**	7440-43-9	0.01	mg/kg	0.06	0.05	0.0
		EG020: Mercury	7439-97-6	0.02	mg/kg	0.08	0.09	0.0
		EG020: Copper	7440-50-8	0.05	mg/kg	11.1	11.6	4.8
		EG020: Lead	7439-92-1	0.05	mg/kg	23.3	24.4	4.9
		EG020: Nickel	7440-02-0	0.05	mg/kg	7.12	7.19	1.0
		EG020: Zinc	7440-66-6	0.5	mg/kg	44.2	44.0	0.6
EG: Metals and Major Cations (QC Lot: 939721)								
HK0905848-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)								

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286) - Continued								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 939239)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 939592)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 926285)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 939238)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 926285)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 939238)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 926285)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 926285) - Continued								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 939238)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 926285)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 939238)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 926285)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 939238)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 926288)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075A: Phenols (QC Lot: 939591)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288) - Continued								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Chrysene**	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 939591)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 926288)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075C: Phthalate Esters (QC Lot: 939591)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 926288)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 939591)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 926287)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-066: Polychlorinated Biphenyls (QC Lot: 939590)								
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 932196)								
HK0905257-001	2108/XRL/M01 (0.50-1.40M)	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 928467)											
EK025: Free Cyanide	----	1.0	mg/kg	----	10 mg/kg	94.0	----	85	115	----	----
				<1	----	----	----	----	----	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 941877)											
EK025: Free Cyanide	----	1	mg/kg	<1	----	----	----	----	----	----	----
				----	2 mg/kg	94.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 926718)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.5	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	90.7	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.3	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	109	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	89.5	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	89.4	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 926735)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	108	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 939049)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	100	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	98.7	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	105	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	96.1	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	104	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	88.1	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 939721)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	105	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286) - Continued											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	101	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	88.4	----	31	119	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	73.7	----	33	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 939239)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	84.5	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 939592)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	57.1	----	28	132	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	47.7	----	27	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 926285)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	119	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	120	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	115	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	119	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	117	----	72	139	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 939238)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	114	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	127	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	124	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	138	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	121	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	134	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 926285)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	---- <5	5.0 mg/kg ----	93.3 ----	---- ----	16 ----	138 ----	---- ----	---- ----
EP-074B: Oxygenated Compounds (QC Lot: 939238)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	---- <5	5.0 mg/kg ----	132 ----	---- ----	16 ----	138 ----	---- ----	---- ----
EP-074E: Halogenated Aliphatics (QC Lot: 926285)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	121	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	127	----	74	128	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 939238)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	119	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	128	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 926285)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	59	142	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074G: Trihalomethanes (THM) (QC Lot: 939238)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	118	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	118	----	59	142	----	----
EP-075A: Phenols (QC Lot: 926288)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	81.3	----	49	119	----	----
EP-075A: Phenols (QC Lot: 939591)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	68.3	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	85.8	----	63	109	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	87.5	----	56	114	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	92.4	----	70	110	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	94.9	----	68	116	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	97.4	----	68	114	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.4	----	70	108	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	68	112	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.9	----	70	111	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	65	114	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	92.5	----	69	109	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	88.1	----	69	121	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	85.1	----	62	113	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	79.6	----	66	114	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.8	----	71	111	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	83.7	----	66	111	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 939591)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	85.5	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	81.5	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	87.6	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	85.1	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	92.6	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	92.6	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	95.1	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.5	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	93.1	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	89.9	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	84.8	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	82.7	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	84.6	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.7	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	82.8	----	63	104	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075G: Chlorinated Hydrocarbons (QC Lot: 926288)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	60	119	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 939591)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	88.2	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 926287)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	109	----	71	138	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 939590)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	118	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 932196)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.02 mg/L	96.8	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 943214)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.002 mg/L	92.5	----	85	115	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 926718)										
HK0905066-003	Anonymous	EG020: Cadmium	7440-43-9	5 mg/kg	87.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	76.9	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	90.3	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 926735)										
HK0905052-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	40 mg/kg	112	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 939049)										
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	EG020: Cadmium	7440-43-9	5 mg/kg	107	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	88.0	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 939049) - Continued										
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	122	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	107	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 939721)										
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	105	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)										
HK0905257-002	2108/XRL/M01 (1.50-2.40M)	**C6 - C8 Fraction**	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)										
HK0905257-002	2108/XRL/M01 (1.50-2.40M)	**C9 - C16 Fraction**	----	31 mg/kg	96.7	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	74.7	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 932196)										
HK0905045-001	Anonymous	**EG020: Mercury**	7439-97-6	0.02 mg/L	100	99.4	75	125	1.2	----
EG: Metals and Major Cations - Filtered (QC Lot: 943214)										
HK0905257-003	2108/XRL/M01 DUPLICATE SAMPLE (0.5-1.4M)	**EG020: Mercury**	7439-97-6	0.002 mg/L	90.0	90.0	75	125	0.0	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075S: Acid Extractable Surrogates - Continued			
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. K

HK0905264

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 11
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905264
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 18-MAR-2009
Order number	: ----			Issue Date	: 07-APR-2009
C-O-C number	: H004742			No. of samples received	: 2
Site	: ----			No. of samples analysed	: 2

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: 27-MAR-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: **HK0905264**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M03 (1.00-1.90M)	2108/XRL/M03 (2.00-2.90M)			
				Client sampling date / time: 18-MAR-2009 14:30	18-MAR-2009 16:00			
				HK0905264-001	HK0905264-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**15.4**	**15.4**			
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**7**	**9**			
EG020: Lead	7439-92-1	1	mg/kg	**46**	**60**			
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG020: Nickel	7440-02-0	1	mg/kg	**5**	**4**			
EG020: Zinc	7440-66-6	1	mg/kg	**84**	**76**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**7**	**27**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5			
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5			
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5			
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0			
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5			
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5			
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5			
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5			
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5			
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0			

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M03 (1.00-1.90M)	2108/XRL/M03 (2.00-2.90M)			
				Client sampling date / time	18-MAR-2009 14:30	18-MAR-2009 16:00			
Compound	CAS Number	LOR	Unit		HK0905264-001	HK0905264-002			
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5			
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5			
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5			
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5			
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5			
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5			
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5			
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5			
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5			
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0			
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5			
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5			
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5			
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2			
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**99.0**			
Toluene-D8	2037-26-5	0.1	%		**98.6**	**99.5**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**100**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**99.0**			
Toluene-D8	2037-26-5	0.1	%		**98.6**	**99.5**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**100**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**57.0**	**73.6**			
Phenol-d6	13127-88-3	0.1	%		**68.7**	**71.5**			
2.4.6-Tribromophenol	118-79-6	0.1	%		**70.0**	**87.2**			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.

Sub-Matrix: **SOIL**				*Client sample ID*	**2108/XRL/M03 (1.00-1.90M)**	**2108/XRL/M03 (2.00-2.90M)**			
				Client sampling date / time	18-MAR-2009 14:30	18-MAR-2009 16:00			
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905264-001**	**HK0905264-002**			
EP-075T: Base/Neutral Extractable Surrogates - Continued									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**80.7**	**78.5**			
2-Fluorobiphenyl	321-60-8	0.1	%		**77.6**	**79.1**			
4-Terphenyl-d14	1718-51-0	0.1	%		**75.1**	**77.7**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**75.8**	**78.1**			
Dibutylchlorendate	1770-80-5	0.1	%		**74.8**	**77.1**			

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M03 (1.00-1.90M)**	**2108/XRL/M03 (2.00-2.90M)**			
				Client sampling date / time	18-MAR-2009 12:00	18-MAR-2009 12:00			
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905264-001**	**HK0905264-002**			
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2			
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 926756)								
HK0905167-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.4	12.7	5.4
HK0905264-001	2108/XRL/M03 (1.00-1.90M)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.4	15.6	0.8
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 928467)								
HK0905257-002	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 926718)								
HK0905066-006	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.1	mg/kg	<0.1	<0.1	0.0
		EG020: Copper	7440-50-8	1	mg/kg	69	70	0.0
		EG020: Lead	7439-92-1	1	mg/kg	34	37	7.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	6	19.3
		EG020: Zinc	7440-66-6	20	mg/kg	88	71	20.7
HK0905121-003	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	<1	<1	0.0
		EG020: Lead	7439-92-1	1	mg/kg	4	4	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	1	1	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	46	43	7.1
EG: Metals and Major Cations (QC Lot: 926735)								
HK0905056-001	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
HK0905271-003	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)								
HK0905257-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)								
HK0905257-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 926285)								
HK0905257-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 926285)								
HK0905257-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 926285)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 926285) - Continued								
HK0905257-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 926285)								
HK0905257-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 926285)								
HK0905257-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 926288)								
HK0905257-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288)								
HK0905257-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 926288)								
HK0905257-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 926288)								
HK0905257-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 926287)								
HK0905257-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 932238)								
HK0905264-002	2108/XRL/M03 (2.00-2.90M)	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

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

Matrix: SOIL

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 928467)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	10 mg/kg ----	94.0 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 926718)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	85.5	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	90.7	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	92.3	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	109	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	89.5	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	89.4	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 926735)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	101	----	57	141	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	88.4	----	31	119	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	73.7	----	33	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 926285)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	119	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	120	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	115	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	119	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	117	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 926285)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	---- <5	5.0 mg/kg ----	93.3 ----	---- ----	16 ----	138 ----	---- ----	---- ----
EP-074E: Halogenated Aliphatics (QC Lot: 926285)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	121	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	127	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 926285)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	110	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	59	142	----	----
EP-075A: Phenols (QC Lot: 926288)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	81.3	----	49	119	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	85.8	----	63	109	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	87.5	----	56	114	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 926288) - Continued											
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	92.4	----	70	110	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	94.9	----	68	116	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	97.4	----	68	114	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.4	----	70	108	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.4	----	68	112	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	94.9	----	70	111	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	95.2	----	65	114	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	92.5	----	69	109	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	88.1	----	69	121	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	85.1	----	62	113	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	79.6	----	66	114	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	82.8	----	71	111	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	83.7	----	66	111	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 926288)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	99.6	----	60	119	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 926287)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	109	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 932238)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	100	----	85	115	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 926718)										
HK0905066-003	Anonymous	EG020: Cadmium	7440-43-9	5 mg/kg	87.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	76.9	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	90.3	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 926718) - Continued										
HK0905066-003	Anonymous	**EG020: Zinc**	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 926735)										
HK0905052-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	112	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926286)										
HK0905257-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 926289)										
HK0905257-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	96.7	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	74.7	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 932238)										
HK0905264-001	2108/XRL/M03 (1.00-1.90M)	**EG020: Mercury**	7439-97-6	0.02 mg/L	103	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate - Continued			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. L

HK0905731

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 12
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905731
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 20-MAR-2009
Order number	: ----			Issue Date	: 16-APR-2009
C-O-C number	: H004743			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 31-MAR-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: **HK0905731**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Water sample(s) were filtered prior to dissolved metal analysis.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M02 (0.50-1.40M)	2108/XRL/M02 (1.50-2.40M)	2108/XRL/M02 (1.50-2.40M) - DUPLICATE		
				Client sampling date / time: 20-MAR-2009 14:30	20-MAR-2009 15:20	20-MAR-2009 14:30		
				HK0905731-001	HK0905731-002	HK0905731-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**19.3**	**13.2**	**19.4**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**9**	**7**	**10**		
EG020: Lead	7439-92-1	1	mg/kg	**51**	**35**	**51**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**9**	**6**	**8**		
EG020: Zinc	7440-66-6	1	mg/kg	**72**	**75**	**66**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**12**	**15**	**12**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M02 (0.50-1.40M)	2108/XRL/M02 (1.50-2.40M)	2108/XRL/M02 (1.50-2.40M) - DUPLICATE		
				Client sampling date / time	20-MAR-2009 14:30	20-MAR-2009 15:20	20-MAR-2009 14:30		
Compound	CAS Number	LOR	Unit		HK0905731-001	HK0905731-002	HK0905731-003		
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**91.1**	**91.8**	**91.0**		
Toluene-D8	2037-26-5	0.1	%		**105**	**107**	**101**		
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**104**	**105**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**91.1**	**91.8**	**91.0**		
Toluene-D8	2037-26-5	0.1	%		**105**	**107**	**101**		
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**104**	**105**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**64.1**	**66.6**	**59.2**		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M02 (0.50-1.40M)	2108/XRL/M02 (1.50-2.40M)	2108/XRL/M02 (1.50-2.40M) - DUPLICATE		
				Client sampling date / time	20-MAR-2009 14:30	20-MAR-2009 15:20	20-MAR-2009 14:30		
Compound	CAS Number	LOR	Unit		HK0905731-001	HK0905731-002	HK0905731-003		
EP-075S: Acid Extractable Surrogates - Continued									Surrogate control limits listed at end of this report.
Phenol-d6	13127-88-3	0.1	%		**70.7**	**72.4**	**61.3**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**82.7**	**84.4**	**71.0**		
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**65.6**	**65.8**	**58.1**		
2-Fluorobiphenyl	321-60-8	0.1	%		**77.3**	**76.9**	**66.5**		
4-Terphenyl-d14	1718-51-0	0.1	%		**98.1**	**89.9**	**82.7**		
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**63.4**	**64.6**	**53.4**		
Dibutylchlorendate	1770-80-5	0.1	%		**76.6**	**77.4**	**63.8**		

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M02 (0.50-1.40M)**	**2108/XRL/M02 (1.50-2.40M)**	**2108/XRL/M02 (1.50-2.40M) - DUPLICATE**		
				Client sampling date / time	14-APR-2009 12:00	14-APR-2009 12:00	18-MAR-2009 12:00		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905731-001**	**HK0905731-002**	**HK0905731-003**		
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2	<0.2		
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**	**1**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 933611)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.3	19.3	0.0
HK0905735-001	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	21.1	21.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**EK025: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 933638)								
HK0905731-002	2108/XRL/M02 (1.50-2.40M)	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	35	38	7.8
		EG020: Nickel	7440-02-0	1	mg/kg	6	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	75	72	5.1
HK0905735-001	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	14	14.9
		EG020: Lead	7439-92-1	1	mg/kg	53	58	9.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	8	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	60	62	3.0
EG: Metals and Major Cations (QC Lot: 933651)								
HK0905731-002	2108/XRL/M02 (1.50-2.40M)	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK0905735-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859) - Continued								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**meta- & para-Xylene**	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 932859)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 932859)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 932859)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 932865)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 932865)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075C: Phthalate Esters (QC Lot: 932865) - Continued								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)								
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 935165)								
HK0905731-003	2108/XRL/M02 (1.50-2.40M) - DUPLICATE	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 941880)								
HK0905731-002	2108/XRL/M02 (1.50-2.40M)	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
HK0905735-001	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)											
EK025: Free Cyanide	----	1.0	mg/kg	----	.1859 mg/kg	99.6	----	85	115	----	----
				<1	----	----	----	----	----	----	----
EG: Metals and Major Cations (QC Lot: 933638)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.2	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.2	0.1 mg/kg	95.5	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	88.4	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 933651)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	102	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	70.3	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.4	----	31	119	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866) - Continued											
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	58.8	----	33	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	109	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	129	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 932859)											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	----	----	----	----	----	----
				----	5.0 mg/kg	88.9	----	16	138	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 932859)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	90.6	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	92.0	----	59	142	----	----
EP-075A: Phenols (QC Lot: 932865)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	77.4	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	91.3	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.0	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.6	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	95.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	98.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.3	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	86.4	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	81.7	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	80.2	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	94.2	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 932864) - Continued											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	74.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 935165)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.002 mg/L	100	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 941880)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	93.8	----	85	115	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 933638)										
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	EG020: Cadmium	7440-43-9	5 mg/kg	93.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	91.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	91.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 933651)										
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	EG3060: Hexavalent Chromium	18540-29-9	40 mg/kg	103	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)										
HK0905731-002	2108/XRL/M02 (1.50-2.40M)	C6 - C8 Fraction	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)										
HK0905731-002	2108/XRL/M02 (1.50-2.40M)	C9 - C16 Fraction	----	31 mg/kg	87.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	65.9	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 935165)										
HK0905352-003	Anonymous	EG020: Mercury	7439-97-6	0.002 mg/L	96.5	99.0	75	125	2.6	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 941880)										
HK0905731-001	2108/XRL/M02 (0.50-1.40M)	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.3	93.1	75	125	0.2	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. M

HK0905733

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 14
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905733
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 20-MAR-2009
Order number	: ----			Issue Date	: 16-APR-2009
C-O-C number	: H004743, H004577			No. of samples received	: 4
Site	: ----			No. of samples analysed	: 4

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 31-MAR-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: **HK0905733**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Water sample(s) were filtered prior to dissolved metal analysis.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M01 (3.00-3.90M)	2108/XRL/M01 (4.50-5.40M)	2108/XRL/M01 (6.00-6.90M)		
				Client sampling date / time: 20-MAR-2009 10:30	20-MAR-2009 11:20	20-MAR-2009 13:50		
				HK0905733-001	HK0905733-002	HK0905733-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**17.5**	**15.3**	**27.7**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**50**	**12**	**7**		
EG020: Lead	7439-92-1	1	mg/kg	**42**	**58**	**70**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**7**	**4**	**3**		
EG020: Zinc	7440-66-6	1	mg/kg	**227**	**106**	**69**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**14**	**20**	**2**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M01 (3.00-3.90M)	2108/XRL/M01 (4.50-5.40M)	2108/XRL/M01 (6.00-6.90M)		
				Client sampling date / time	20-MAR-2009 10:30	20-MAR-2009 11:20	20-MAR-2009 13:50		
Compound	CAS Number	LOR	Unit		HK0905733-001	HK0905733-002	HK0905733-003		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**89.9**	**89.2**	**91.9**		
Toluene-D8	2037-26-5	0.1	%		**101**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**106**	**105**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**89.9**	**89.2**	**91.9**		
Toluene-D8	2037-26-5	0.1	%		**101**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**106**	**105**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**76.7**	**64.1**	**67.1**		
Phenol-d6	13127-88-3	0.1	%		**82.9**	**72.3**	**68.8**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**91.3**	**73.4**	**69.2**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M01 (3.00-3.90M)	2108/XRL/M01 (4.50-5.40M)	2108/XRL/M01 (6.00-6.90M)		
				Client sampling date / time	20-MAR-2009 10:30	20-MAR-2009 11:20	20-MAR-2009 13:50		
Compound	CAS Number	LOR	Unit		HK0905733-001	HK0905733-002	HK0905733-003		
EP-075T: Base/Neutral Extractable Surrogates - Continued									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**77.3**	**72.0**	**69.6**		
2-Fluorobiphenyl	321-60-8	0.1	%		**89.7**	**79.8**	**78.2**		
4-Terphenyl-d14	1718-51-0	0.1	%		**97.7**	**105**	**103**		
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**72.4**	**67.6**	**65.6**		
Dibutylchlorendate	1770-80-5	0.1	%		**84.8**	**82.6**	**82.2**		

Sub-Matrix: **TCLP LEACHATE**								
			Client sample ID	**2108/XRL/M01 (3.00-3.90M)**	**2108/XRL/M01 (4.50-5.40M)**	**2108/XRL/M01 (6.00-6.90M)**		
			Client sampling date / time	14-APR-2009 12:00	14-APR-2009 12:00	14-APR-2009 12:00		
Compound	*CAS Number*	*LOR*	*Unit*	**HK0905733-001**	**HK0905733-002**	**HK0905733-003**		
EG: Metals and Major Cations - Filtered								
EG020: Mercury	7439-97-6	0.2	mg/L	<0.2	<0.2	<0.2		
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**	**1**		

Sub-Matrix: WATER			Client sample ID	TRIP BLANK				
			Client sampling date / time	[20-MAR-2009]				
Compound	CAS Number	LOR	Unit	HK0905733-004				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5				
Toluene	108-88-3	5	µg/L	<5				
Ethylbenzene	100-41-4	5	µg/L	<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10				
Styrene	100-42-5	5	µg/L	<5				
ortho-Xylene	95-47-6	5	µg/L	<5				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50				
2-Butanone (MEK)	78-93-3	50	µg/L	<50				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50				
Trichloroethene	79-01-6	5	µg/L	<5				
Tetrachloroethene	127-18-4	5	µg/L	<5				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5				
Bromodichloromethane	75-27-4	5	µg/L	<5				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**107**				
Toluene-D8	2037-26-5	0.1	%	**99.6**				
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**107**				
Toluene-D8	2037-26-5	0.1	%	**99.6**				
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 933611)								
HK0905731-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.3	19.3	0.0
HK0905735-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.1	21.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)								
HK0905731-001	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 933638)								
HK0905731-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	35	38	7.8
		EG020: Nickel	7440-02-0	1	mg/kg	6	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	75	72	5.1
HK0905735-001	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	14	14.9
		EG020: Lead	7439-92-1	1	mg/kg	53	58	9.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	8	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	60	62	3.0
EG: Metals and Major Cations (QC Lot: 933651)								
HK0905731-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0905735-001	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)								
HK0905731-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)								
HK0905731-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)								
HK0905731-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 932859)								
HK0905731-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 932859)								
HK0905731-001	Anonymous	Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 932859) - Continued								
HK0905731-001	Anonymous	**Tetrachloroethene**	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)								
HK0905731-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 932859)								
HK0905731-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 932865)								
HK0905731-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)								
HK0905731-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 932865)								
HK0905731-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)								
HK0905731-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)								
HK0905731-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 941880)								
HK0905731-002	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
HK0905735-001	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)								
HK0905352-002	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)								
HK0905352-002	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	6	5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 934416)								
HK0905352-002	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 934416)								
HK0905352-002	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)								
HK0905352-002	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 934416)								
HK0905352-002	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	.1859 mg/kg ----	99.6 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 933638)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.2	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.2	0.1 mg/kg	95.5	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	88.4	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 933651)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	102	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	70.3	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866) - Continued											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.4	----	31	119	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	58.8	----	33	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	109	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	129	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 932859)											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	----	----	----	----	----	----
				----	5.0 mg/kg	88.9	----	16	138	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 932859)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	90.6	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	92.0	----	59	142	----	----
EP-075A: Phenols (QC Lot: 932865)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	77.4	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	91.3	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.0	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.6	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	95.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	98.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.3	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	86.4	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	81.7	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	80.2	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	94.2	----	67	106	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	74.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 941880)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	93.8	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	----	----	----	----	----	----	----
				----	0.15 mg/L	93.9	----	60	139	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	85.7	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	83.0	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	87.6	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	87.0	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	92.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.6	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 934416)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.6	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 934416)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	94.4	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	83.4	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	92.5	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	99.8	----	77	120	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 933638)										
HK0905731-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	91.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	91.2	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 933638) - Continued										
HK0905731-001	Anonymous	**EG020: Zinc**	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 933651)										
HK0905731-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	103	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)										
HK0905731-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)										
HK0905731-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	87.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	65.9	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 941880)										
HK0905731-001	Anonymous	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.3	93.1	75	125	0.2	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate - Continued			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. N

HK0905734

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 14
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905734
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 21-MAR-2009
Order number	: ----			Issue Date	: 16-APR-2009
C-O-C number	: H004744, H004577			No. of samples received	: 5
Site	: ----			No. of samples analysed	: 5

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 31-MAR-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: **HK0905734**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Water sample(s) were filtered prior to dissolved metal analysis.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M03 (3.00-3.90M)	2108/XRL/M03 (4.50-5.40M)	2108/XRL/M03 (6.00-6.90M)	2108/XRL/M03 (3.00-3.45M) - DUPLICATE
			Client sampling date / time	21-MAR-2009 10:00	21-MAR-2009 10:50	21-MAR-2009 11:30	21-MAR-2009 10:00
				HK0905734-001	HK0905734-002	HK0905734-003	HK0905734-004
EA/ED: Physical and Aggregate Properties							
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**15.4**	**9.3**	**16.7**	**17.2**
ED/EK: Inorganic Nonmetallic Parameters							
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1
EG: Metals and Major Cations							
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	**7**	**2**	**15**	**6**
EG020: Lead	7439-92-1	1	mg/kg	**141**	**11**	**76**	**78**
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2
EG020: Nickel	7440-02-0	1	mg/kg	**3**	**2**	**2**	**3**
EG020: Zinc	7440-66-6	1	mg/kg	**108**	**18**	**84**	**74**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**3**	**1**	**3**	**4**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)							
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)							
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0	<1.0
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
EP-074B: Oxygenated Compounds							
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5	<5
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5	<5
EP-074E: Halogenated Aliphatics							
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5	<5
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
EP-074G: Trihalomethanes (THM)							
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5	<0.5
EP-074L: Methyl-tert-butyl Ether							

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M03 (3.00-3.90M)	2108/XRL/M03 (4.50-5.40M)	2108/XRL/M03 (6.00-6.90M)	2108/XRL/M03 (3.00-3.45M) - DUPLICATE	
				Client sampling date / time	21-MAR-2009 10:00	21-MAR-2009 10:50	21-MAR-2009 11:30	21-MAR-2009 10:00	
Compound	CAS Number	LOR	Unit		HK0905734-001	HK0905734-002	HK0905734-003	HK0905734-004	
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0	<1.0	
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**91.6**	**92.6**	**91.1**	**93.4**	
Toluene-D8	2037-26-5	0.1	%		**101**	**104**	**100**	**107**	
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**105**	**104**	**104**	
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**91.6**	**92.6**	**91.1**	**93.4**	
Toluene-D8	2037-26-5	0.1	%		**101**	**104**	**100**	**107**	
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**105**	**104**	**104**	
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**64.6**	**64.6**	**67.3**	**72.4**	

Sub-Matrix: **SOIL**				*Client sample ID*	**2108/XRL/M03 (3.00-3.90M)**	**2108/XRL/M03 (4.50-5.40M)**	**2108/XRL/M03 (6.00-6.90M)**	**2108/XRL/M03 (3.00-3.45M) - DUPLICATE**	
				Client sampling date / time	21-MAR-2009 10:00	21-MAR-2009 10:50	21-MAR-2009 11:30	21-MAR-2009 10:00	
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905734-001**	**HK0905734-002**	**HK0905734-003**	**HK0905734-004**	
EP-075S: Acid Extractable Surrogates - Continued									Surrogate control limits listed at end of this report.
Phenol-d6	13127-88-3	0.1	%		**67.3**	**78.0**	**73.7**	**77.8**	
2.4.6-Tribromophenol	118-79-6	0.1	%		**85.0**	**61.8**	**88.6**	**82.7**	
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**65.3**	**76.0**	**71.6**	**74.8**	
2-Fluorobiphenyl	321-60-8	0.1	%		**73.0**	**86.0**	**82.2**	**84.4**	
4-Terphenyl-d14	1718-51-0	0.1	%		**103**	**102**	**90.7**	**100**	
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**66.0**	**87.8**	**77.6**	**77.0**	
Dibutylchlorendate	1770-80-5	0.1	%		**87.0**	**113**	**99.4**	**101**	

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M03 (3.00-3.90M)**	**2108/XRL/M03 (4.50-5.40M)**	**2108/XRL/M03 (6.00-6.90M)**	**2108/XRL/M03 (3.00-3.45M) - DUPLICATE**	
				Client sampling date / time	14-APR-2009 12:00	14-APR-2009 12:00	14-APR-2009 12:00	14-APR-2009 12:00	
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905734-001**	**HK0905734-002**	**HK0905734-003**	**HK0905734-004**	
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2	<0.2	<0.2	
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**	**1**	**1**	

Sub-Matrix: WATER			Client sample ID	TRIP BLANK				
			Client sampling date / time	[21-MAR-2009]				
Compound	CAS Number	LOR	Unit	HK0905734-005				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5				
Toluene	108-88-3	5	µg/L	<5				
Ethylbenzene	100-41-4	5	µg/L	<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10				
Styrene	100-42-5	5	µg/L	<5				
ortho-Xylene	95-47-6	5	µg/L	<5				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50				
2-Butanone (MEK)	78-93-3	50	µg/L	<50				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50				
Trichloroethene	79-01-6	5	µg/L	<5				
Tetrachloroethene	127-18-4	5	µg/L	<5				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5				
Bromodichloromethane	75-27-4	5	µg/L	<5				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**106**				
Toluene-D8	2037-26-5	0.1	%	**102**				
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**106**				
Toluene-D8	2037-26-5	0.1	%	**102**				
4-Bromofluorobenzene	460-00-4	0.1	%	**99.9**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 933611)								
HK0905731-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.3	19.3	0.0
HK0905735-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.1	21.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)								
HK0905731-001	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)								
HK0905734-002	2108/XRL/M03 (4.50-5.40M)	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 933638)								
HK0905731-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	35	38	7.8
		EG020: Nickel	7440-02-0	1	mg/kg	6	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	75	72	5.1
HK0905735-001	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	14	14.9
		EG020: Lead	7439-92-1	1	mg/kg	53	58	9.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	8	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	60	62	3.0
EG: Metals and Major Cations (QC Lot: 933651)								
HK0905731-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0905735-001	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)								
HK0905731-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)								
HK0905731-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)								
HK0905731-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 932859)								
HK0905731-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 932859) - Continued								
HK0905731-001	Anonymous	**2-Butanone (MEK)**	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 932859)								
HK0905731-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)								
HK0905731-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 932859)								
HK0905731-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 932865)								
HK0905731-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)								
HK0905731-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 932865)								
HK0905731-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)								
HK0905731-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)								
HK0905731-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 941880)								
HK0905731-002	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 941880) - Continued								
HK0905735-001	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)								
HK0905352-002	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)								
HK0905352-002	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	6	5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 934416)								
HK0905352-002	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 934416)								
HK0905352-002	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)								
HK0905352-002	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 934416)								
HK0905352-002	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 943995)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	.1859 mg/kg ----	99.6 ----	---- ----	85 ----	115 ----	---- ----	---- ----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	10 mg/kg ----	98.0 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 933638)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.2	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.2	0.1 mg/kg	95.5	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	88.4	----	85	115	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 933638) - Continued											
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 933651)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	102	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	70.3	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.4	----	31	119	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	58.8	----	33	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	109	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	129	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 932859)											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	----	----	----	----	----	----
				----	5.0 mg/kg	88.9	----	16	138	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 932859)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	90.6	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	92.0	----	59	142	----	----
EP-075A: Phenols (QC Lot: 932865)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	77.4	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	91.3	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.0	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.6	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	95.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	98.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.3	----	68	102	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865) - Continued											
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	86.4	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	81.7	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	80.2	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	94.2	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	74.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 941880)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	93.8	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	----	----	----	----	----	----	----
				----	0.15 mg/L	93.9	----	60	139	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	85.7	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	83.0	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	87.6	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	87.0	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	92.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.6	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 934416)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.6	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 934416)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	94.4	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	83.4	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	92.5	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	99.8	----	77	120	----	----

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

Matrix: **SOIL**

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 933638)										
HK0905731-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	91.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	91.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 933651)										
HK0905731-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	103	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)										
HK0905731-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)										
HK0905731-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	87.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	65.9	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 941880)										
HK0905731-001	Anonymous	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.3	93.1	75	125	0.2	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. O

HK0905735

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 12
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905735
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 23-MAR-2009
Order number	: ----			Issue Date	: 17-APR-2009
C-O-C number	: H004744, H004577			No. of samples received	: 3
Site	: ----			No. of samples analysed	: 3

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Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 31-MAR-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: **HK0905735**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Water sample(s) were filtered prior to dissolved metal analysis.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M04 (0.50-1.40M)	2108/XRL/M04 (1.50-2.40M)	2108/XRL/M04 (0.50-1.40M) - DUPLICATE		
				Client sampling date / time: 23-MAR-2009 15:00	23-MAR-2009 15:40	23-MAR-2009 15:00		
				HK0905735-001	HK0905735-002	HK0905735-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**21.1**	**21.5**	**21.1**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**12**	**9**	**11**		
EG020: Lead	7439-92-1	1	mg/kg	**53**	**86**	**94**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**8**	**6**	**8**		
EG020: Zinc	7440-66-6	1	mg/kg	**60**	**61**	**122**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**12**	**8**	**11**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M04 (0.50-1.40M)	2108/XRL/M04 (1.50-2.40M)	2108/XRL/M04 (0.50-1.40M) - DUPLICATE		
				Client sampling date / time	23-MAR-2009 15:00	23-MAR-2009 15:40	23-MAR-2009 15:00		
Compound	CAS Number	LOR	Unit		HK0905735-001	HK0905735-002	HK0905735-003		
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**94.8**	**96.7**	**98.6**		
Toluene-D8	2037-26-5	0.1	%		**107**	**108**	**108**		
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**107**	**105**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**94.8**	**96.7**	**98.6**		
Toluene-D8	2037-26-5	0.1	%		**107**	**108**	**108**		
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**107**	**105**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**74.8**	**63.0**	**76.3**		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M04 (0.50-1.40M)	2108/XRL/M04 (1.50-2.40M)	2108/XRL/M04 (0.50-1.40M) - DUPLICATE		
				Client sampling date / time	23-MAR-2009 15:00	23-MAR-2009 15:40	23-MAR-2009 15:00		
Compound	CAS Number	LOR	Unit		HK0905735-001	HK0905735-002	HK0905735-003		
EP-075S: Acid Extractable Surrogates - Continued									Surrogate control limits listed at end of this report.
Phenol-d6	13127-88-3	0.1	%		**80.6**	**67.8**	**83.5**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**79.0**	**75.2**	**77.9**		
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**77.8**	**65.5**	**79.0**		
2-Fluorobiphenyl	321-60-8	0.1	%		**86.6**	**74.1**	**87.1**		
4-Terphenyl-d14	1718-51-0	0.1	%		**101**	**102**	**87.6**		
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**63.6**	**61.4**	**73.0**		
Dibutylchlorendate	1770-80-5	0.1	%		**73.8**	**76.8**	**88.6**		

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M04 (0.50-1.40M)**	**2108/XRL/M04 (1.50-2.40M)**	**2108/XRL/M04 (0.50-1.40M) - DUPLICATE**		
				Client sampling date / time	14-APR-2009 12:00	14-APR-2009 12:00	18-MAR-2009 12:00		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905735-001**	**HK0905735-002**	**HK0905735-003**		
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2	<0.2		
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**	**1**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 933611)								
HK0905731-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.3	19.3	0.0
HK0905735-001	2108/XRL/M04 (0.50-1.40M)	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	21.1	21.2	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)								
HK0905734-002	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 933638)								
HK0905731-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	7	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	35	38	7.8
		EG020: Nickel	7440-02-0	1	mg/kg	6	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	75	72	5.1
HK0905735-001	2108/XRL/M04 (0.50-1.40M)	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	14	14.9
		EG020: Lead	7439-92-1	1	mg/kg	53	58	9.1
		EG020: Nickel	7440-02-0	1	mg/kg	8	8	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	60	62	3.0
EG: Metals and Major Cations (QC Lot: 933651)								
HK0905731-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0905735-001	2108/XRL/M04 (0.50-1.40M)	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)								
HK0905731-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)								
HK0905731-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)								
HK0905731-001	Anonymous	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 932859)								
HK0905731-001	Anonymous	2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 932859)								
HK0905731-001	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)								
HK0905731-001	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 932859)								
HK0905731-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 932865)								
HK0905731-001	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)								
HK0905731-001	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 932865)								
HK0905731-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)								
HK0905731-001	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)								
HK0905731-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 935165)								
HK0905731-003	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 941880)								
HK0905731-002	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 941880) - Continued								
HK0905735-001	2108/XRL/M04 (0.50-1.40M)	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)											
EK025: Free Cyanide	----	1.0	mg/kg	---- <1	10 mg/kg ----	98.0 ----	---- ----	85 ----	115 ----	---- ----	---- ----
EG: Metals and Major Cations (QC Lot: 933638)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.7	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.2	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.2	0.1 mg/kg	95.5	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	88.4	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 933651)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	102	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	70.3	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	76.4	----	31	119	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	58.8	----	33	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 932859)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	96.4	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	109	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	129	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	104	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	105	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 932859)											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5 ----	---- 5.0 mg/kg	---- 88.9	---- ----	---- 16	---- 138	---- ----	---- ----
EP-074E: Halogenated Aliphatics (QC Lot: 932859)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	97.8	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	112	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 932859)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	90.6	----	59	145	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074G: Trihalomethanes (THM) (QC Lot: 932859) - Continued											
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	92.0	----	59	142	----	----
EP-075A: Phenols (QC Lot: 932865)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	77.4	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 932865)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	94.1	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	91.3	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.0	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	91.9	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.6	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	98.7	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	95.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	98.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	97.0	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	94.3	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	86.4	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	81.7	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	83.2	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	80.2	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 932865)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	94.2	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 932864)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	74.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 935165)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.002 mg/L	100	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 941880)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	93.8	----	85	115	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 933638)										
HK0905731-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.5	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	91.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	91.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 933651)										
HK0905731-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	103	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932860)										
HK0905731-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	102	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 932866)										
HK0905731-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	87.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	65.9	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 935165)										
HK0905352-003	Anonymous	**EG020: Mercury**	7439-97-6	0.002 mg/L	96.5	99.0	75	125	2.6	----
EG: Metals and Major Cations - Filtered (QC Lot: 941880)										
HK0905731-001	Anonymous	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.3	93.1	75	125	0.2	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075S: Acid Extractable Surrogates - Continued			
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. P

HK0905756

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 18
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905756
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 23-MAR-2009
Order number	: ----			Issue Date	: 20-APR-2009
C-O-C number	: H004745-H004746			No. of samples received	: 6
Site	: ----			No. of samples analysed	: 6

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 30-MAR-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: **HK0905756**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M02 (3.00-3.90M)	2108/XRL/M02 (4.50-5.40M)	2108/XRL/M02 (6.00-6.90M)		
				Client sampling date / time: 23-MAR-2009 10:30	23-MAR-2009 13:10	23-MAR-2009 14:00		
				HK0905756-004	HK0905756-005	HK0905756-006		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**15.0**	**15.4**	**28.0**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**14**	**12**	**19**		
EG020: Lead	7439-92-1	1	mg/kg	**59**	**161**	**92**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**6**	**3**	**4**		
EG020: Zinc	7440-66-6	1	mg/kg	**196**	**168**	**212**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**15**	**9**	**4**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M02 (3.00-3.90M)	2108/XRL/M02 (4.50-5.40M)	2108/XRL/M02 (6.00-6.90M)		
				Client sampling date / time	23-MAR-2009 10:30	23-MAR-2009 13:10	23-MAR-2009 14:00		
Compound	CAS Number	LOR	Unit		HK0905756-004	HK0905756-005	HK0905756-006		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.3**	**92.0**	**93.1**		
Toluene-D8	2037-26-5	0.1	%		**107**	**100**	**101**		
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**103**	**105**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.3**	**92.0**	**93.1**		
Toluene-D8	2037-26-5	0.1	%		**107**	**100**	**101**		
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**103**	**105**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**54.1**	**85.5**	**71.1**		
Phenol-d6	13127-88-3	0.1	%		**53.0**	**89.9**	**59.6**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**80.1**	**75.2**	**67.5**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M02 (3.00-3.90M)	2108/XRL/M02 (4.50-5.40M)	2108/XRL/M02 (6.00-6.90M)		
				Client sampling date / time	23-MAR-2009 10:30	23-MAR-2009 13:10	23-MAR-2009 14:00		
Compound	CAS Number	LOR	Unit		HK0905756-004	HK0905756-005	HK0905756-006		
EP-075T: Base/Neutral Extractable Surrogates - Continued								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**57.9**	**78.5**	**64.9**		
2-Fluorobiphenyl	321-60-8	0.1	%		**67.6**	**94.0**	**70.2**		
4-Terphenyl-d14	1718-51-0	0.1	%		**99.4**	**85.6**	**85.0**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**59.6**	**72.0**	**52.4**		
Dibutylchlorendate	1770-80-5	0.1	%		**74.6**	**87.4**	**59.8**		

Sub-Matrix: **TCLP LEACHATE**				*Client sample ID*	**2108/XRL/M02 (3.00-3.90M)**	**2108/XRL/M02 (4.50-5.40M)**	**2108/XRL/M02 (6.00-6.90M)**		
				Client sampling date / time	23-MAR-2009 12:00	23-MAR-2009 12:00	23-MAR-2009 12:00		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905756-004**	**HK0905756-005**	**HK0905756-006**		
EG: Metals and Major Cations - Filtered									
EG020: Mercury	7439-97-6	0.2	mg/L		<0.2	<0.2	<0.2		
Sample Preparation Method									
E-TCLP: Extraction Fluid Number	----	-	--		**1**	**1**	**1**		

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK	EQUIPMENT BLANK		
				Client sampling date / time	[23-MAR-2009]	[23-MAR-2009]	[23-MAR-2009]		
Compound	CAS Number	LOR	Unit		HK0905756-001	HK0905756-002	HK0905756-003		
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	0.01	mg/L		----	<0.01	<0.01		
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L		----	<0.02	<0.02		
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L		----	<0.02	<0.02		
EG: Metals and Major Cations - Filtered									
EG020: Cadmium	7440-43-9	0.0002	mg/L		----	<0.0002	<0.0002		
EG020: Copper	7440-50-8	0.001	mg/L		----	<0.001	<0.001		
EG020: Lead	7439-92-1	0.001	mg/L		----	<0.001	**0.001**		
EG020: Mercury	7439-97-6	0.0001	mg/L		----	<0.0001	<0.0001		
EG020: Nickel	7440-02-0	0.001	mg/L		----	<0.001	<0.001		
EG020: Zinc	7440-66-6	0.01	mg/L		----	<0.01	**0.57**		
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20		
C9 - C16 Fraction	----	500	µg/L		----	<500	<500		
C17 - C35 Fraction	----	500	µg/L		----	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5		
Toluene	108-88-3	5	µg/L		<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10		
Styrene	100-42-5	5	µg/L		<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5		
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50		
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50		
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5		
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5		
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		----	<2	<2		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		----	<2	<2		

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK	EQUIPMENT BLANK		
				Client sampling date / time	[23-MAR-2009]	[23-MAR-2009]	[23-MAR-2009]		
Compound	CAS Number	LOR	Unit		HK0905756-001	HK0905756-002	HK0905756-003		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Acenaphthylene	208-96-8	2	µg/L		----	<2	<2		
Acenaphthene	83-32-9	2	µg/L		----	<2	<2		
Fluorene	86-73-7	2	µg/L		----	<2	<2		
Phenanthrene	85-01-8	2	µg/L		----	<2	<2		
Anthracene	120-12-7	2	µg/L		----	<2	<2		
Fluoranthene	206-44-0	2	µg/L		----	<2	<2		
Pyrene	129-00-0	2	µg/L		----	<2	<2		
Benz(a)anthracene	56-55-3	2	µg/L		----	<2	<2		
Chrysene	218-01-9	2	µg/L		----	<2	<2		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		----	<4	<4		
Benzo(a)pyrene	50-32-8	2	µg/L		----	<2	<2		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		----	<2	<2		
Dibenz(a.h)anthracene	53-70-3	2	µg/L		----	<2	<2		
Benzo(g.h.i)perylene	191-24-2	2	µg/L		----	<2	<2		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		----	<20	<20		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		----	<4	<4		
EP-066_67: Total Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.01	µg/L		----	<0.01	<0.01		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**106**	**104**	**106**		
Toluene-D8	2037-26-5	0.1	%		**98.9**	**99.1**	**102**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**	**101**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**106**	**104**	**106**		
Toluene-D8	2037-26-5	0.1	%		**98.9**	**99.1**	**102**		
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**	**101**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		----	**37.8**	**38.8**		
Phenol-d6	13127-88-3	0.1	%		----	**25.5**	**21.0**		
2.4.6-Tribromophenol	118-79-6	0.1	%		----	**55.0**	**52.9**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		----	**53.4**	**38.9**		
2-Fluorobiphenyl	321-60-8	0.1	%		----	**53.0**	**45.7**		
4-Terphenyl-d14	1718-51-0	0.1	%		----	**104**	**94.9**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**	**FIELD BLANK**	**EQUIPMENT BLANK**		
				Client sampling date / time	[23-MAR-2009]	[23-MAR-2009]	[23-MAR-2009]		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905756-001**	**HK0905756-002**	**HK0905756-003**		
EP-066S: PCB Surrogate - Continued									Surrogate control limits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%		----	**87.8**	**96.8**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 935138)								
HK0905714-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.2	46.3	0.2
HK0905806-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.8	10.8	9.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)								
HK0905734-002	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 935190)								
HK0905756-005	2108/XRL/M02 (4.50-5.40M)	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK0905847-003	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EG: Metals and Major Cations (QC Lot: 937939)								
HK0905751-002	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	5	0.0
		EG020: Lead	7439-92-1	1	mg/kg	16	15	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	10	9	11.3
		EG020: Zinc	7440-66-6	1	mg/kg	64	68	7.4
HK0905802-005	Anonymous	EG020: Cadmium	7440-43-9	0.01	mg/kg	0.13	0.13	0.0
		EG020: Mercury	7439-97-6	0.02	mg/kg	0.05	0.05	0.0
		EG020: Copper	7440-50-8	0.05	mg/kg	18.8	21.1	11.9
		EG020: Lead	7439-92-1	0.05	mg/kg	30.0	27.0	10.6
		EG020: Nickel	7440-02-0	0.05	mg/kg	3.72	3.75	0.7
		EG020: Zinc	7440-66-6	0.5	mg/kg	247	292	16.8
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 935783)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 935783)								

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 935783) - Continued								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 935783)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 935783)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 935783)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 935801)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 935801)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 935801)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0
EP-075G: Chlorinated Hydrocarbons (QC Lot: 935801)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075G: Chlorinated Hydrocarbons (QC Lot: 935801) - Continued								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 935800)								
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)								
HK0905352-003	Anonymous	**EK025MD: Free Cyanide**	----	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations (QC Lot: 934566)								
HK0905756-003	EQUIPMENT BLANK	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 934634)								
HK0905447-001	Anonymous	**EG020: Mercury**	7439-97-6	0.0005	mg/L	<0.0005	<0.0005	0.0
		EG020: Cadmium	7440-43-9	0.002	mg/L	<0.002	<0.002	0.0
		EG020: Copper	7440-50-8	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Lead	7439-92-1	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Nickel	7440-02-0	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Zinc	7440-66-6	0.01	mg/L	0.06	0.06	0.0
HK0905819-005	Anonymous	**EG020: Mercury**	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0
		EG020: Cadmium	7440-43-9	0.0002	mg/L	<0.0002	<0.0002	0.0
		EG020: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Zinc	7440-66-6	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 942719)								
HK0905756-005	2108/XRL/M02 (4.50-5.40M)	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)								
HK0905352-002	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)								
HK0905352-002	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	6	5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 934416)								
HK0905352-002	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 934416)								
HK0905352-002	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)								
HK0905352-002	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 934416)								
HK0905352-002	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)											
EK025: Free Cyanide	----	1.0	mg/kg	----	10 mg/kg	98.0	----	85	115	----	----
				<1	----	----	----	----	----	----	----
EG: Metals and Major Cations (QC Lot: 935190)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	105	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 937939)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	89.6	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.4	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	96.7	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.0	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	66.1	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	56.4	----	28	132	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	55.0	----	27	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 935783)											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	121	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	115	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	133	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	118	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	131	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 935783)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	105	----	16	138	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074B: Oxygenated Compounds (QC Lot: 935783) - Continued											
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 935783)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	117	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 935783)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	101	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.6	----	59	142	----	----
EP-075A: Phenols (QC Lot: 935801)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	82.9	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 935801)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	86.4	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	84.9	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	90.7	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	92.7	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.9	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.9	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	96.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	99.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	89.8	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	102	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.3	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	83.8	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	85.4	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	86.8	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 935801)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	92.8	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 935800)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	91.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)											
EK025MD: Free Cyanide	----	0.01	mg/L	<0.01	0.2 mg/L	106	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 934566)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	97.8	----	85	115	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 934634)											
EG020: Cadmium	7440-43-9	0.0002	mg/L	<0.0002	0.1 mg/L	87.9	----	85	115	----	----
EG020: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	90.0	----	85	115	----	----
EG020: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.3	----	85	115	----	----
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.002 mg/L	94.5	----	85	115	----	----
EG020: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	91.8	----	85	115	----	----
EG020: Zinc	7440-66-6	0.01	mg/L	<0.01	0.1 mg/L	90.8	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 942719)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	92.9	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934349)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	66.0	----	25	90	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	71.1	----	29	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	----	----	----	----	----	----	----
				----	0.15 mg/L	93.9	----	60	139	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	85.7	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	83.0	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	87.6	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	87.0	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	92.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.6	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 934416)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.6	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 934416)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	94.4	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	83.4	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	92.5	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	99.8	----	77	120	----	----
EP-075A: Phenols (QC Lot: 934347)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	45.0	----	9	85	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 934347)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	75.7	----	67	100	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	70.3	----	64	100	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	74.8	----	53	102	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	80.9	----	63	103	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	91.7	----	65	102	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	92.6	----	62	102	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	99.3	----	74	107	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 934347) - Continued											
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	97.1	----	74	108	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	88.8	----	55	122	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	98.2	----	64	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	106	----	70	112	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	99.4	----	64	105	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	83.0	----	77	106	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	83.2	----	72	109	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	87.9	----	73	109	----	----
EP-075C: Phthalate Esters (QC Lot: 934347)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	97.8	----	79	112	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 934347)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	81.8	----	66	107	----	----
EP-066_67: Total Polychlorinated Biphenyls (QC Lot: 934348)											
Total Polychlorinated biphenyls	----	0.01	µg/L	<0.01	0.1 µg/L	124	----	59	149	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 935190)										
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	107	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 937939)										
HK0905751-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	95.0	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	84.3	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	84.7	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	107	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	82.3	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)										
HK0905756-005	2108/XRL/M02 (4.50-5.40M)	**C6 - C8 Fraction**	----	3 mg/kg	73.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)										
HK0905756-005	2108/XRL/M02 (4.50-5.40M)	**C9 - C16 Fraction**	----	31 mg/kg	71.6	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	64.1	----	50	130	----	----

Matrix: **WATER**

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

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)										
HK0905352-001	Anonymous	**EK025MD: Free Cyanide**	----	0.2 mg/L	106	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 934566)										
HK0905756-002	FIELD BLANK	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	91.6	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 934634)										
HK0905352-001	Anonymous	**EG020: Cadmium**	7440-43-9	0.1 mg/L	97.4	91.8	75	125	5.9	----
		EG020: Copper	7440-50-8	0.1 mg/L	96.4	91.5	75	125	5.2	----
		EG020: Lead	7439-92-1	0.1 mg/L	86.2	89.6	75	125	4.0	----
		EG020: Mercury	7439-97-6	0.002 mg/L	99.5	105	75	125	5.4	----
		EG020: Nickel	7440-02-0	0.1 mg/L	93.9	92.4	75	125	1.6	----
		EG020: Zinc	7440-66-6	0.1 mg/L	92.0	97.2	75	125	5.6	----
EG: Metals and Major Cations - Filtered (QC Lot: 942719)										
HK0905756-004	2108/XRL/M02 (3.00-3.90M)	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.7	107	75	125	13.4	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141
EP-066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	50	130

Report No. Q

HK0905819

CERTIFICATE OF ANALYSIS

Client	: MASS TRANSIT RAILWAY CORPORATION	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 18
Contact	: MR TOM LO	Contact	: Wong Wai Man, Alice	Work Order	: HK0905819
Address	: 6 KO SHAN ROAD, GROUND FLOOR, HUNG HOM, KOWLOON, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: tom@gce.com.hk	E-mail	: Alice.Wong@alsenviro.com		
Telephone	: +852 2365 9123	Telephone	: +852 2610 1044		
Facsimile	: +852 2765 8034	Facsimile	: +852 2610 2021		
Project	: GROUND INVESTIGATION FOR EXPRESS RAIL LINK	Quote number	: ----	Date Samples Received	: 24-MAR-2009
Order number	: ----			Issue Date	: 20-APR-2009
C-O-C number	: H004747-H004748			No. of samples received	: 6
Site	: ----			No. of samples analysed	: 6

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Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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: 30-MAR-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: **HK0905819**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

The metal concentrations reported are those determined on the TCLP leachate. Extraction Fluid #1 pH 4.88 - 4.98.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: 2108/XRL/M04 (3.00-3.90M)	2108/XRL/M04 (4.50-5.40M)	2108/XRL/M04 (6.00-6.90M)		
				Client sampling date / time: 24-MAR-2009 10:35	24-MAR-2009 11:30	24-MAR-2009 14:00		
				HK0905819-001	HK0905819-002	HK0905819-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103° C)	----	0.1	%	**15.0**	**4.9**	**24.8**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Copper	7440-50-8	1	mg/kg	**6**	**2**	**21**		
EG020: Lead	7439-92-1	1	mg/kg	**40**	**23**	**89**		
EG020: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG020: Nickel	7440-02-0	1	mg/kg	**5**	**1**	**3**		
EG020: Zinc	7440-66-6	1	mg/kg	**50**	**17**	**117**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**5**	**2**	**4**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.5	mg/kg	<0.5	<0.5	<0.5		
Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	<0.5		
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	<1.0		
Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	<0.5		
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	5	mg/kg	<5	<5	<5		
2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	<5		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	5	mg/kg	<5	<5	<5		
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	<0.5	<0.5		
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.5	mg/kg	<0.5	<0.5	<0.5		
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	<0.5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5.0	mg/kg	<5.0	<5.0	<5.0		

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M04 (3.00-3.90M)	2108/XRL/M04 (4.50-5.40M)	2108/XRL/M04 (6.00-6.90M)		
				Client sampling date / time	24-MAR-2009 10:35	24-MAR-2009 11:30	24-MAR-2009 14:00		
Compound	CAS Number	LOR	Unit		HK0905819-001	HK0905819-002	HK0905819-003		
EP-075A: Phenols									
Phenol	108-95-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthylene	208-96-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Acenaphthene	83-32-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluorene	86-73-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Phenanthrene	85-01-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Anthracene	120-12-7	0.5	mg/kg		<0.5	<0.5	<0.5		
Fluoranthene	206-44-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Pyrene	129-00-0	0.5	mg/kg		<0.5	<0.5	<0.5		
Benz(a)anthracene	56-55-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Chrysene	218-01-9	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg		<1.0	<1.0	<1.0		
Benzo(a)pyrene	50-32-8	0.5	mg/kg		<0.5	<0.5	<0.5		
Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg		<0.5	<0.5	<0.5		
Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg		<0.5	<0.5	<0.5		
Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg		<0.5	<0.5	<0.5		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg		<0.2	<0.2	<0.2		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.1**	**94.2**	**94.6**		
Toluene-D8	2037-26-5	0.1	%		**99.9**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**103**	**105**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.1**	**94.2**	**94.6**		
Toluene-D8	2037-26-5	0.1	%		**99.9**	**100**	**100**		
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**103**	**105**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**73.3**	**70.4**	**78.3**		
Phenol-d6	13127-88-3	0.1	%		**70.1**	**66.1**	**76.3**		
2.4.6-Tribromophenol	118-79-6	0.1	%		**84.2**	**73.8**	**85.1**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	

Sub-Matrix: SOIL				Client sample ID	2108/XRL/M04 (3.00-3.90M)	2108/XRL/M04 (4.50-5.40M)	2108/XRL/M04 (6.00-6.90M)		
				Client sampling date / time	24-MAR-2009 10:35	24-MAR-2009 11:30	24-MAR-2009 14:00		
Compound	CAS Number	LOR	Unit		HK0905819-001	HK0905819-002	HK0905819-003		
EP-075T: Base/Neutral Extractable Surrogates - Continued								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**72.8**	**74.2**	**80.1**		
2-Fluorobiphenyl	321-60-8	0.1	%		**82.1**	**79.2**	**81.7**		
4-Terphenyl-d14	1718-51-0	0.1	%		**105**	**99.1**	**106**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**65.0**	**58.0**	**64.2**		
Dibutylchlorendate	1770-80-5	0.1	%		**82.6**	**70.4**	**81.4**		

Sub-Matrix: **TCLP LEACHATE**								
			Client sample ID	**2108/XRL/M04 (3.00-3.90M)**	**2108/XRL/M04 (4.50-5.40M)**	**2108/XRL/M04 (6.00-6.90M)**		
			Client sampling date / time	14-APR-2009 12:00	14-APR-2009 12:00	14-APR-2009 12:00		
Compound	*CAS Number*	*LOR*	*Unit*	**HK0905819-001**	**HK0905819-002**	**HK0905819-003**		
EG: Metals and Major Cations - Filtered								
EG020: Mercury	7439-97-6	0.2	mg/L	<0.2	<0.2	<0.2		
Sample Preparation Method								
E-TCLP: Extraction Fluid Number	----	-	--	**1**	**1**	**1**		

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK	EQUIPMENT BLANK		
				Client sampling date / time	[24-MAR-2009]	24-MAR-2009 13:00	24-MAR-2009 13:30		
Compound	CAS Number	LOR	Unit		HK0905819-004	HK0905819-005	HK0905819-006		
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	0.01	mg/L		----	<0.01	<0.01		
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L		----	<0.02	<0.02		
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L		----	<0.02	<0.02		
EG: Metals and Major Cations - Filtered									
EG020: Cadmium	7440-43-9	0.0002	mg/L		----	<0.0002	<0.0002		
EG020: Copper	7440-50-8	0.001	mg/L		----	<0.001	<0.001		
EG020: Lead	7439-92-1	0.001	mg/L		----	<0.001	**0.001**		
EG020: Mercury	7439-97-6	0.0001	mg/L		----	<0.0001	<0.0001		
EG020: Nickel	7440-02-0	0.001	mg/L		----	<0.001	<0.001		
EG020: Zinc	7440-66-6	0.01	mg/L		----	<0.01	**0.20**		
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20		
C9 - C16 Fraction	----	500	µg/L		----	<500	<500		
C17 - C35 Fraction	----	500	µg/L		----	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5		
Toluene	108-88-3	5	µg/L		<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10		
Styrene	100-42-5	5	µg/L		<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5		
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	**80**	<50		
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50		
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5		
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5		
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		----	<2	<2		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		----	<2	<2		

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK	EQUIPMENT BLANK		
				Client sampling date / time	[24-MAR-2009]	24-MAR-2009 13:00	24-MAR-2009 13:30		
Compound	CAS Number	LOR	Unit		HK0905819-004	HK0905819-005	HK0905819-006		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Acenaphthylene	208-96-8	2	µg/L		----	<2	<2		
Acenaphthene	83-32-9	2	µg/L		----	<2	<2		
Fluorene	86-73-7	2	µg/L		----	<2	<2		
Phenanthrene	85-01-8	2	µg/L		----	<2	<2		
Anthracene	120-12-7	2	µg/L		----	<2	<2		
Fluoranthene	206-44-0	2	µg/L		----	<2	<2		
Pyrene	129-00-0	2	µg/L		----	<2	<2		
Benz(a)anthracene	56-55-3	2	µg/L		----	<2	<2		
Chrysene	218-01-9	2	µg/L		----	<2	<2		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		----	<4	<4		
Benzo(a)pyrene	50-32-8	2	µg/L		----	<2	<2		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		----	<2	<2		
Dibenz(a.h)anthracene	53-70-3	2	µg/L		----	<2	<2		
Benzo(g.h.i)perylene	191-24-2	2	µg/L		----	<2	<2		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		----	<20	<20		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		----	<4	<4		
EP-066_67: Total Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.01	µg/L		----	<0.01	<0.01		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**102**	**102**	**104**		
Toluene-D8	2037-26-5	0.1	%		**100**	**99.5**	**97.5**		
4-Bromofluorobenzene	460-00-4	0.1	%		**97.6**	**98.5**	**96.4**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**102**	**102**	**104**		
Toluene-D8	2037-26-5	0.1	%		**100**	**99.5**	**97.5**		
4-Bromofluorobenzene	460-00-4	0.1	%		**97.6**	**98.5**	**96.4**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		----	**30.1**	**26.5**		
Phenol-d6	13127-88-3	0.1	%		----	**28.0**	**25.0**		
2.4.6-Tribromophenol	118-79-6	0.1	%		----	**80.8**	**65.7**		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		----	**62.3**	**54.8**		
2-Fluorobiphenyl	321-60-8	0.1	%		----	**63.2**	**53.5**		
4-Terphenyl-d14	1718-51-0	0.1	%		----	**79.4**	**67.4**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**	**FIELD BLANK**	**EQUIPMENT BLANK**		
				Client sampling date / time	[24-MAR-2009]	24-MAR-2009 13:00	24-MAR-2009 13:30		
Compound	*CAS Number*	*LOR*	*Unit*		**HK0905819-004**	**HK0905819-005**	**HK0905819-006**		
EP-066S: PCB Surrogate - Continued									Surrogate control limits listed at end of this report.
Decachlorobiphenyl	2051-24-3	0.1	%		----	**93.0**	**97.8**		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 935138)								
HK0905714-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.2	46.3	0.2
HK0905806-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.8	10.8	9.2
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)								
HK0905734-002	Anonymous	EK025: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 934218)								
HK0905819-002	2108/XRL/M04 (4.50-5.40M)	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 937939)								
HK0905751-002	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	5	0.0
		EG020: Lead	7439-92-1	1	mg/kg	16	15	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	10	9	11.3
		EG020: Zinc	7440-66-6	1	mg/kg	64	68	7.4
HK0905802-005	Anonymous	EG020: Cadmium	7440-43-9	0.01	mg/kg	0.13	0.13	0.0
		EG020: Mercury	7439-97-6	0.02	mg/kg	0.05	0.05	0.0
		EG020: Copper	7440-50-8	0.05	mg/kg	18.8	21.1	11.9
		EG020: Lead	7439-92-1	0.05	mg/kg	30.0	27.0	10.6
		EG020: Nickel	7440-02-0	0.05	mg/kg	3.72	3.75	0.7
		EG020: Zinc	7440-66-6	0.5	mg/kg	247	292	16.8
EG: Metals and Major Cations (QC Lot: 937940)								
HK0905826-001	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	<0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	9	9	0.0
		EG020: Lead	7439-92-1	1	mg/kg	24	25	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	15	14	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	58	52	11.1
HK0905900-006	Anonymous	EG020: Mercury	7439-97-6	0.05	mg/kg	0.06	0.05	0.0
		EG020: Cadmium	7440-43-9	0.2	mg/kg	0.4	0.4	0.0
		EG020: Copper	7440-50-8	1	mg/kg	31	33	4.1
		EG020: Lead	7439-92-1	1	mg/kg	40	47	15.8
		EG020: Nickel	7440-02-0	1	mg/kg	3	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	160	163	1.8
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)								
HK0905756-004	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)								
HK0905756-004	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0

Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	*Client sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 935783)								
HK0905756-004	Anonymous	**Benzene**	71-43-2	0.5	mg/kg	<0.5	<0.5	0.0
		Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0
		Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0
		Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0
		ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	<1.0	0.0
EP-074B: Oxygenated Compounds (QC Lot: 935783)								
HK0905756-004	Anonymous	**2-Propanone (Acetone)**	67-64-1	5	mg/kg	<5	<5	0.0
		2-Butanone (MEK)	78-93-3	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 935783)								
HK0905756-004	Anonymous	**Trichloroethene**	79-01-6	0.5	mg/kg	<0.5	<0.5	0.0
		Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	<0.5	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 935783)								
HK0905756-004	Anonymous	**Chloroform**	67-66-3	0.5	mg/kg	<0.5	<0.5	0.0
		Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	<0.5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 935783)								
HK0905756-004	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5.0	mg/kg	<5.0	<5.0	0.0
EP-075A: Phenols (QC Lot: 935801)								
HK0905756-004	Anonymous	**Phenol**	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 935801)								
HK0905756-004	Anonymous	**Naphthalene**	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0
		Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0
		Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0
		Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0
		Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0
		Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0
		Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0
		Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0
		Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0
		Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0
		Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	1.0	mg/kg	<1.0	<1.0	0.0
EP-075C: Phthalate Esters (QC Lot: 935801)								
HK0905756-004	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	5.0	mg/kg	<5.0	<5.0	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-075G: Chlorinated Hydrocarbons (QC Lot: 935801)								
HK0905756-004	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	0.2	mg/kg	<0.2	<0.2	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 935800)								
HK0905756-004	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)								
HK0905352-003	Anonymous	**EK025MD: Free Cyanide**	----	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations (QC Lot: 934566)								
HK0905756-003	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 934634)								
HK0905447-001	Anonymous	**EG020: Mercury**	7439-97-6	0.0005	mg/L	<0.0005	<0.0005	0.0
		EG020: Cadmium	7440-43-9	0.002	mg/L	<0.002	<0.002	0.0
		EG020: Copper	7440-50-8	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Lead	7439-92-1	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Nickel	7440-02-0	0.01	mg/L	<0.01	<0.01	0.0
		EG020: Zinc	7440-66-6	0.01	mg/L	0.06	0.06	0.0
HK0905819-005	FIELD BLANK	**EG020: Mercury**	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0
		EG020: Cadmium	7440-43-9	0.0002	mg/L	<0.0002	<0.0002	0.0
		EG020: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0
		EG020: Zinc	7440-66-6	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 941880)								
HK0905731-002	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
HK0905735-001	Anonymous	**EG020: Mercury**	7439-97-6	0.2	mg/L	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)								
HK0905352-002	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)								
HK0905352-002	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	6	5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 934416)								
HK0905352-002	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 934416)								

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 934416) - Continued								
HK0905352-002	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)								
HK0905352-002	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 934416)								
HK0905352-002	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 947594)											
EK025: Free Cyanide	----	1.0	mg/kg	----	10 mg/kg	98.0	----	85	115	----	----
				<1	----	----	----	----	----	----	----
EG: Metals and Major Cations (QC Lot: 934218)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	105	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 937939)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	89.6	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.4	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	96.7	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	95.0	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	95.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 937940)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.8	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	106	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.4	----	85	115	----	----
EG020: Mercury	7439-97-6	0.05	mg/kg	<0.05	0.1 mg/kg	98.8	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	96.3	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	66.1	----	61	135	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	56.4	----	28	132	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	55.0	----	27	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 935783)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result	Concentration	LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 935783) - Continued											
Benzene	71-43-2	0.5	mg/kg	<0.5	0.5 mg/kg	106	----	57	144	----	----
Toluene	108-88-3	0.5	mg/kg	<0.5	0.5 mg/kg	121	----	66	128	----	----
Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	0.5 mg/kg	115	----	76	134	----	----
meta- & para-Xylene	108-38-3 106-42-3	1.0	mg/kg	<1.0	1.0 mg/kg	133	----	69	142	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	0.5 mg/kg	118	----	69	126	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	0.5 mg/kg	131	----	72	139	----	----
EP-074B: Oxygenated Compounds (QC Lot: 935783)											
2-Butanone (MEK)	78-93-3	5.0	mg/kg	----	5.0 mg/kg	105	----	16	138	----	----
				<5	----	----	----	----	----	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 935783)											
Trichloroethene	79-01-6	0.5	mg/kg	<0.5	0.5 mg/kg	103	----	65	134	----	----
Tetrachloroethene	127-18-4	0.5	mg/kg	<0.5	0.5 mg/kg	117	----	74	128	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 935783)											
Chloroform	67-66-3	0.5	mg/kg	<0.5	0.5 mg/kg	101	----	59	145	----	----
Bromodichloromethane	75-27-4	0.5	mg/kg	<0.5	0.5 mg/kg	99.6	----	59	142	----	----
EP-075A: Phenols (QC Lot: 935801)											
Phenol	108-95-2	0.1	mg/kg	<0.1	0.25 mg/kg	82.9	----	52	98	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 935801)											
Naphthalene	91-20-3	0.1	mg/kg	<0.1	0.25 mg/kg	86.4	----	57	103	----	----
Acenaphthylene	208-96-8	0.1	mg/kg	<0.1	0.25 mg/kg	84.9	----	61	104	----	----
Acenaphthene	83-32-9	0.1	mg/kg	<0.1	0.25 mg/kg	90.7	----	64	106	----	----
Fluorene	86-73-7	0.1	mg/kg	<0.1	0.25 mg/kg	92.7	----	68	106	----	----
Phenanthrene	85-01-8	0.1	mg/kg	<0.1	0.25 mg/kg	98.9	----	71	101	----	----
Anthracene	120-12-7	0.1	mg/kg	<0.1	0.25 mg/kg	96.9	----	63	101	----	----
Fluoranthene	206-44-0	0.1	mg/kg	<0.1	0.25 mg/kg	96.9	----	65	102	----	----
Pyrene	129-00-0	0.1	mg/kg	<0.1	0.25 mg/kg	99.3	----	64	106	----	----
Benz(a)anthracene	56-55-3	0.1	mg/kg	<0.1	0.25 mg/kg	89.8	----	71	100	----	----
Chrysene	218-01-9	0.1	mg/kg	<0.1	0.25 mg/kg	99.1	----	68	102	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	0.2	mg/kg	<0.2	0.50 mg/kg	102	----	67	109	----	----
Benzo(a)pyrene	50-32-8	0.1	mg/kg	<0.1	0.25 mg/kg	99.3	----	59	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	0.1	mg/kg	<0.1	0.25 mg/kg	83.8	----	64	106	----	----
Dibenz(a.h)anthracene	53-70-3	0.1	mg/kg	<0.1	0.25 mg/kg	85.4	----	64	106	----	----
Benzo(g.h.i)perylene	191-24-2	0.1	mg/kg	<0.1	0.25 mg/kg	86.8	----	63	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 935801)											
Hexachlorobenzene (HCB)	118-74-1	0.2	mg/kg	<0.2	0.25 mg/kg	92.8	----	67	106	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 935800)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	91.3	----	71	138	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)											
EK025MD: Free Cyanide	----	0.01	mg/L	<0.01	0.2 mg/L	106	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 934566)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	97.8	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 934634)											
EG020: Cadmium	7440-43-9	0.0002	mg/L	<0.0002	0.1 mg/L	87.9	----	85	115	----	----
EG020: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	90.0	----	85	115	----	----
EG020: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.3	----	85	115	----	----
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.002 mg/L	94.5	----	85	115	----	----
EG020: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	91.8	----	85	115	----	----
EG020: Zinc	7440-66-6	0.01	mg/L	<0.01	0.1 mg/L	90.8	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 941880)											
EG020: Mercury	7439-97-6	0.0001	mg/L	<0.2	0.02 mg/L	93.8	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934349)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	66.0	----	25	90	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	71.1	----	29	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 934417)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	----	----	----	----	----	----	----
				----	0.15 mg/L	93.9	----	60	139	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 934416)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	85.7	----	54	132	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	83.0	----	59	128	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	87.6	----	68	125	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	87.0	----	75	122	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	92.5	----	73	119	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	96.6	----	72	125	----	----
EP-074B: Oxygenated Compounds (QC Lot: 934416)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.6	----	63	126	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 934416)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	94.4	----	67	125	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	83.4	----	59	126	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 934416)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	92.5	----	68	123	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	99.8	----	77	120	----	----
EP-075A: Phenols (QC Lot: 934347)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	45.0	----	9	85	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 934347)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	75.7	----	67	100	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	70.3	----	64	100	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 934347) - Continued											
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	74.8	----	53	102	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	80.9	----	63	103	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	91.7	----	65	102	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	92.6	----	62	102	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	99.3	----	74	107	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	97.1	----	74	108	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	88.8	----	55	122	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	98.2	----	64	115	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	106	----	70	112	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	99.4	----	64	105	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	83.0	----	77	106	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	83.2	----	72	109	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	87.9	----	73	109	----	----
EP-075C: Phthalate Esters (QC Lot: 934347)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	97.8	----	79	112	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 934347)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	81.8	----	66	107	----	----
EP-066_67: Total Polychlorinated Biphenyls (QC Lot: 934348)											
Total Polychlorinated biphenyls	----	0.01	µg/L	<0.01	0.1 µg/L	124	----	59	149	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations (QC Lot: 934218)										
HK0905819-001	2108/XRL/M04 (3.00-3.90M)	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	107	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 937939)										
HK0905751-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	95.0	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	84.3	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	84.7	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	107	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	82.3	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 937940)										
HK0905819-003	2108/XRL/M04 (6.00-6.90M)	**EG020: Cadmium**	7440-43-9	5 mg/kg	96.4	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 937940) - Continued										
HK0905819-003	2108/XRL/M04 (6.00-6.90M)	**EG020: Copper**	7440-50-8	5 mg/kg	99.2	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Mercury	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	98.6	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935784)										
HK0905756-005	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	73.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 935802)										
HK0905756-005	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	71.6	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	64.1	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 935486)										
HK0905352-001	Anonymous	**EK025MD: Free Cyanide**	----	0.2 mg/L	106	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 934566)										
HK0905756-002	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	91.6	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 934634)										
HK0905352-001	Anonymous	**EG020: Cadmium**	7440-43-9	0.1 mg/L	97.4	91.8	75	125	5.9	----
		EG020: Copper	7440-50-8	0.1 mg/L	96.4	91.5	75	125	5.2	----
		EG020: Lead	7439-92-1	0.1 mg/L	86.2	89.6	75	125	4.0	----
		EG020: Mercury	7439-97-6	0.002 mg/L	99.5	105	75	125	5.4	----
		EG020: Nickel	7440-02-0	0.1 mg/L	93.9	92.4	75	125	1.6	----
		EG020: Zinc	7440-66-6	0.1 mg/L	92.0	97.2	75	125	5.6	----
EG: Metals and Major Cations - Filtered (QC Lot: 941880)										
HK0905731-001	Anonymous	**EG020: Mercury**	7439-97-6	0.02 mg/L	93.3	93.1	75	125	0.2	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	25	121
Phenol-d6	13127-88-3	24	113
2.4.6-Tribromophenol	118-79-6	20	122
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	23	120
2-Fluorobiphenyl	321-60-8	30	115
4-Terphenyl-d14	1718-51-0	20	137
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141
EP-066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	50	130

Report No. R

HK1101480

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 14
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1101480
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 17-JAN-2011
Order number	: ----			Issue Date	: 29-JAN-2011
C-O-C number	: H010613			No. of samples received	: 13
Site	: XRL823A			No. of samples analysed	: 13

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 24-JAN-2011

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: **HK1101480**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: N1-01 0.5M	N1-02 0.5M	N1-01 1.5M	N1-02 1.5M	N3-02 0.5M
				Client sampling date / time: [17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]
				HK1101480-001	HK1101480-002	HK1101480-003	HK1101480-004	HK1101480-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.8	19.1	16.5	18.8	14.7
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	7	18	7	8	7
EG020: Lead	7439-92-1	1	mg/kg	47	53	40	56	43
EG020: Zinc	7440-66-6	1	mg/kg	95	105	105	92	102
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	5	5	6	6	5
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL	Client sample ID	N1-01 0.5M	N1-02 0.5M	N1-01 1.5M	N1-02 1.5M	N3-02 0.5M
	Client sampling date / time	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]
Compound / CAS Number / LOR / Unit		HK1101480-001	HK1101480-002	HK1101480-003	HK1101480-004	HK1101480-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued						
Acenaphthene 83-32-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene 86-73-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene 85-01-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene 120-12-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene 206-44-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene 129-00-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene 56-55-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene 218-01-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene 205-99-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene 207-08-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene 50-32-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene 193-39-5 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene 53-70-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene 191-24-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate						
Phenol 108-95-2 0.50 mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB) 118-74-1 0.200 mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate 117-81-7 5.00 mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate						Surrogate control limits listed at end of this report.
Dibromofluoromethane 1868-53-7 0.1 %		**92.8**	**92.3**	**92.9**	**90.9**	**93.4**
Toluene-D8 2037-26-5 0.1 %		**98.2**	**84.5**	**86.4**	**107**	**90.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**103**	**109**	**120**	**119**	**113**
EP-074S: VOC Surrogates						Surrogate control limits listed at end of this report.
Dibromofluoromethane 1868-53-7 0.1 %		**92.8**	**92.3**	**92.9**	**90.9**	**93.4**
Toluene-D8 2037-26-5 0.1 %		**98.2**	**84.5**	**86.4**	**107**	**90.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**103**	**109**	**120**	**119**	**113**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates						Surrogate control limits listed at end of this report.
2-Fluorobiphenyl 321-60-8 0.1 %		**91.2**	**89.1**	**83.8**	**91.6**	**87.3**
4-Terphenyl-d14 1718-51-0 0.1 %		**108**	**105**	**102**	**108**	**102**

Sub-Matrix: SOIL				Client sample ID	N3-02 1.5M	N4-01 0.5M	N4-01 1.5M	N3-01 0.5M	N3-01 1.5M
				Client sampling date / time	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1101480-006	HK1101480-007	HK1101480-008	HK1101480-009	HK1101480-010
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		16.8	11.6	15.3	14.8	15.7
EG: Metals and Major Cations									
EG020: Copper	7440-50-8	1	mg/kg		13	11	11	10	12
EG020: Lead	7439-92-1	1	mg/kg		60	54	56	45	47
EG020: Zinc	7440-66-6	1	mg/kg		143	117	116	100	131
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		7	7	7	7	6
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL				Client sample ID	N3-02 1.5M	N4-01 0.5M	N4-01 1.5M	N3-01 0.5M	N3-01 1.5M
				Client sampling date / time	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]	[17-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1101480-006	HK1101480-007	HK1101480-008	HK1101480-009	HK1101480-010
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.3**	**92.3**	**110**	**100**	**108**
Toluene-D8	2037-26-5	0.1	%		**83.1**	**110**	**110**	**107**	**94.7**
4-Bromofluorobenzene	460-00-4	0.1	%		**109**	**120**	**111**	**103**	**103**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.3**	**92.3**	**110**	**100**	**108**
Toluene-D8	2037-26-5	0.1	%		**83.1**	**110**	**110**	**107**	**94.7**
4-Bromofluorobenzene	460-00-4	0.1	%		**109**	**120**	**111**	**103**	**103**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**88.9**	**89.9**	**93.3**	**84.7**	**93.0**
4-Terphenyl-d14	1718-51-0	0.1	%		**107**	**108**	**111**	**96.0**	**109**

Sub-Matrix: SOIL			Client sample ID	N3-04 0.5M	N3-04 1.5M			
			Client sampling date / time	[17-JAN-2011]	[17-JAN-2011]			
Compound	CAS Number	LOR	Unit	HK1101480-011	HK1101480-012			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**23.9**	**15.4**			
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**26**	**10**			
EG020: Lead	7439-92-1	1	mg/kg	**50**	**50**			
EG020: Zinc	7440-66-6	1	mg/kg	**195**	**106**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**23**	**5**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2			
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50			
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50			
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500			
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500			
Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500			
Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500			

Sub-Matrix: SOIL				Client sample ID	N3-04 0.5M	N3-04 1.5M			
				Client sampling date / time	[17-JAN-2011]	[17-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1101480-011	HK1101480-012			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500			
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500			
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500			
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500			
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500			
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500			
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500			
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500			
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500			
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500			
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500			
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50			
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200			
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.4**	**83.2**			
Toluene-D8	2037-26-5	0.1	%		**97.6**	**90.5**			
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**96.2**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.4**	**83.2**			
Toluene-D8	2037-26-5	0.1	%		**97.6**	**90.5**			
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**96.2**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**88.0**	**92.2**			
4-Terphenyl-d14	1718-51-0	0.1	%		**101**	**108**			

Sub-Matrix: WATER				Client sample ID	TRIP BLANK				
				Client sampling date / time	[17-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1101480-013					
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L	<5					
Toluene	108-88-3	5	µg/L	<5					
Ethylbenzene	100-41-4	5	µg/L	<5					
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10					
Styrene	100-42-5	5	µg/L	<5					
ortho-Xylene	95-47-6	5	µg/L	<5					
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L	<50					
2-Butanone (MEK)	78-93-3	50	µg/L	<50					
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L	<50					
Trichloroethene	79-01-6	5	µg/L	<5					
Tetrachloroethene	127-18-4	5	µg/L	<5					
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L	<5					
Bromodichloromethane	75-27-4	5	µg/L	<5					
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5					
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**100**					
Toluene-D8	2037-26-5	0.1	%	**98.2**					
4-Bromofluorobenzene	460-00-4	0.1	%	**102**					

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1637577)								
HK1101480-001	N1-01 0.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	17.8	17.8	0.0
HK1101480-011	N3-04 0.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	23.9	23.8	0.5
EG: Metals and Major Cations (QC Lot: 1639285)								
HK1101480-001	N1-01 0.5M	EG020: Copper	7440-50-8	1	mg/kg	7	8	0.0
		EG020: Lead	7439-92-1	1	mg/kg	47	50	5.4
		EG020: Zinc	7440-66-6	1	mg/kg	95	82	15.1
HK1101480-010	N3-01 1.5M	EG020: Copper	7440-50-8	1	mg/kg	12	12	0.0
		EG020: Lead	7439-92-1	1	mg/kg	47	53	13.0
		EG020: Zinc	7440-66-6	1	mg/kg	131	129	1.7
EG: Metals and Major Cations (QC Lot: 1639286)								
HK1101480-001	N1-01 0.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1101480-010	N3-01 1.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)								
HK1101417-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)								
HK1101417-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1636014)								
HK1101417-001	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1636014)								
HK1101417-001	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1636014)								
HK1101417-001	Anonymous	Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1636014)								
HK1101417-001	Anonymous	Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1636014)								
HK1101417-001	Anonymous	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470) - Continued								
HK1100387-003	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1631470)								
HK1100387-003	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1639285)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	88.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	90.7	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1639286)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	80.8	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	94.9	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	74.5	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1636014)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	93.9	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	107	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1636014)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	108	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1636014)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1636014)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1636014)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	114	----	50	118	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470) - Continued											
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	77.9	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	111	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	110	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	108	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	90.3	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	94.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	96.9	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	85.3	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	87.4	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	98.0	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	84.9	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	88.1	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	82.7	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	103	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	103	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1631470)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	85.0	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	99.6	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	96.8	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report					
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1639285)										
HK1101417-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	81.0	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1639286)										
HK1101417-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	77.2	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)										
HK1101480-001	N1-01 0.5M	**C6 - C8 Fraction**	----	3 mg/kg	97.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)										
HK1101480-001	N1-01 0.5M	**C9 - C16 Fraction**	----	31 mg/kg	80.1	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	81.8	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. S

HK1101562

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 16
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1101562
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 18-JAN-2011
Order number	: ----			Issue Date	: 01-FEB-2011
C-O-C number	: H024581			No. of samples received	: 9
Site	: ----			No. of samples analysed	: 8

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1101562**

Sample(s) were received in a chilled condition.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID	M-05 0.5M	M-05 1.5M	M-06 0.5M	M-06 1.5M	M-07 0.5M
				Client sampling date / time	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]
					HK1101562-001	HK1101562-002	HK1101562-003	HK1101562-004	HK1101562-005
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**20.0**	**20.2**	**20.0**	**18.2**	**19.4**
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	1	mg/kg		<1	<1	<1	<1	<1
EG: Metals and Major Cations									
EG020: Cadmium	7440-43-9	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg		**9**	**10**	**9**	**9**	**9**
EG020: Lead	7439-92-1	1	mg/kg		**48**	**60**	**47**	**48**	**48**
EG020: Nickel	7440-02-0	1	mg/kg		**7**	**6**	**9**	**6**	**7**
EG020: Zinc	7440-66-6	1	mg/kg		**49**	**65**	**52**	**56**	**48**
EG036: Mercury	7439-97-6	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		**11**	**10**	**14**	**10**	**12**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	M-05 0.5M	M-05 1.5M	M-06 0.5M	M-06 1.5M	M-07 0.5M
				Client sampling date / time	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1101562-001	HK1101562-002	HK1101562-003	HK1101562-004	HK1101562-005
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**89.6**	**91.3**	**91.0**	**90.6**	**91.2**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**98.4**	**96.8**	**97.4**	**97.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**104**	**102**	**102**	**103**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**89.6**	**91.3**	**91.0**	**90.6**	**91.2**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**98.4**	**96.8**	**97.4**	**97.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**104**	**102**	**102**	**103**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**94.2**	**90.7**	**86.6**	**77.0**	**86.8**
4-Terphenyl-d14	1718-51-0	0.1	%		**115**	**111**	**112**	**105**	**99.2**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**50.7**	**67.9**	**52.4**	**61.6**	**69.3**

Sub-Matrix: **SOIL**			*Client sample ID*	**M-05 0.5M**	**M-05 1.5M**	**M-06 0.5M**	**M-06 1.5M**	**M-07 0.5M**
			Client sampling date / time	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]	[18-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1101562-001**	**HK1101562-002**	**HK1101562-003**	**HK1101562-004**	**HK1101562-005**
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	**57.8**	**84.4**	**57.6**	**63.0**	**68.6**

Sub-Matrix: SOIL			Client sample ID	M-07 1.5M	N3-01 3-3.45M			
			Client sampling date / time	[18-JAN-2011]	[18-JAN-2011]			
Compound	CAS Number	LOR	Unit	HK1101562-006	HK1101562-007			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**18.7**	**8.4**			
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	----			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	----			
EG020: Copper	7440-50-8	1	mg/kg	**8**	**9**			
EG020: Lead	7439-92-1	1	mg/kg	**47**	**44**			
EG020: Nickel	7440-02-0	1	mg/kg	**6**	----			
EG020: Zinc	7440-66-6	1	mg/kg	**52**	**114**			
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	----			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**9**	**5**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2			
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50			
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50			
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50			

Sub-Matrix: SOIL				Client sample ID	M-07 1.5M	N3-01 3-3.45M			
				Client sampling date / time	[18-JAN-2011]	[18-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1101562-006	HK1101562-007			
EP-074L: Methyl-tert-butyl Ether - Continued									
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500			
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500			
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500			
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500			
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500			
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500			
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500			
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500			
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500			
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500			
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500			
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500			
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500			
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500			
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500			
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50			
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200			
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.2**	**92.0**			
Toluene-D8	2037-26-5	0.1	%		**96.9**	**97.6**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.2**	**92.0**			
Toluene-D8	2037-26-5	0.1	%		**96.9**	**97.6**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**88.2**	**92.0**			
4-Terphenyl-d14	1718-51-0	0.1	%		**116**	**113**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**61.4**	----			
Dibutylchlorendate	1770-80-5	0.1	%		**82.9**	----			

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[18-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1101562-008**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**102**				
Toluene-D8	2037-26-5	0.1	%		**98.2**				
4-Bromofluorobenzene	460-00-4	0.1	%		**102**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1639828)								
HK1101360-024	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	30.7	31.5	2.6
HK1101625-003	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.2	18.8	3.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1639745)								
HK1101562-001	M-05 0.5M	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1641093)								
HK1101562-002	M-05 1.5M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1641096)								
HK1101562-002	M-05 1.5M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	10	10	0.0
		EG020: Lead	7439-92-1	1	mg/kg	60	58	2.4
		EG020: Nickel	7440-02-0	1	mg/kg	6	6	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	65	61	5.0
EG: Metals and Major Cations (QC Lot: 1641104)								
HK1101360-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
HK1101360-017	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0
EG: Metals and Major Cations (QC Lot: 1641106)								
HK1101562-004	M-06 1.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)								
HK1101417-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)								
HK1101417-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1636014)								
HK1101417-001	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)								
HK1101562-005	M-07 0.5M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1636014)								
HK1101417-001	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1639557)								
HK1101562-005	M-07 0.5M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1636014)								
HK1101417-001	Anonymous	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	0.5	mg/kg	<0.5	<0.5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)								
HK1101562-005	M-07 0.5M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1636014)								
HK1101417-001	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)								
HK1101562-005	M-07 0.5M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1636014)								
HK1101417-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)								
HK1101562-005	M-07 0.5M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1639456)								
HK1101625-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470)								
HK1100387-003	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470) - Continued								
HK1100387-003	Anonymous	**Phenanthrene**	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)								
HK1101562-004	M-06 1.5M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1631470)								
HK1100387-003	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)								
HK1101562-004	M-06 1.5M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1639745)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.961 mg/kg	110	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1641093)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.02	0.1 mg/kg	90.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1641096)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.6	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	105	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	93.6	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	104	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1641104)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	101	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1641106)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	102	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	80.8	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	94.9	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	74.5	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1636014)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	93.9	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	70	129	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1636014) - Continued											
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	107	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	89.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	97.4	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	105	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	98.7	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1636014)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	108	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1639557)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	96.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1636014)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	111	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.0	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1636014)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1636014)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1639456)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	71.0	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	114	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	77.9	----	46	113	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1631470) - Continued											
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	111	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	110	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	108	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	90.3	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	94.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	96.9	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	85.3	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	87.4	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	98.0	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	84.9	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	88.1	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	82.7	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	103	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	103	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	87.4	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	72.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	92.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	97.8	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	88.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	110	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	110	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	102	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	108	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	106	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	113	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	92.3	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	104	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	106	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1631470)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	85.0	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	99.6	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	96.8	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	94.2	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	101	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	97.6	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1639745)										
HK1101417-001	Anonymous	**EK025MD: Free Cyanide**	----	1.961 mg/kg	91.8	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1641093)										
HK1101562-001	M-05 0.5M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	102	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1641096)										
HK1101562-001	M-05 0.5M	**EG020: Cadmium**	7440-43-9	5 mg/kg	93.7	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	87.4	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	80.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1641104)										
HK1101360-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	111	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1641106)										
HK1101562-003	M-06 0.5M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	105	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015)										

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636015) - Continued										
HK1101480-001	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	97.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636104)										
HK1101480-001	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	80.1	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	81.8	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. T

HK1101684

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 10
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1101684
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 19-JAN-2011
Order number	: ----			Issue Date	: 01-FEB-2011
C-O-C number	: H024588			No. of samples received	: 3
Site	: XRL 823A			No. of samples analysed	: 3

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1101684**

Sample(s) were received in an ambient condition.

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

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: N3-01 6.0-6.45M Client sampling date / time: [19-JAN-2011] HK1101684-001	Client sample ID: DUP A N3-01 6.0-6.45M Client sampling date / time: [19-JAN-2011] HK1101684-002			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**14.0**	**14.5**			
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**11**	**10**			
EG020: Lead	7439-92-1	1	mg/kg	**37**	**36**			
EG020: Zinc	7440-66-6	1	mg/kg	**133**	**151**			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**4**	**8**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2			
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50			
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50			
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500			
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500			

Sub-Matrix: SOIL				Client sample ID	N3-01 6.0-6.45M	DUP A N3-01 6.0-6.45M			
				Client sampling date / time	[19-JAN-2011]	[19-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1101684-001	HK1101684-002			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500			
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500			
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500			
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500			
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500			
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500			
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500			
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500			
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500			
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500			
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500			
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500			
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500			
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50			
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200			
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.0**	**93.0**			
Toluene-D8	2037-26-5	0.1	%		**99.3**	**97.1**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**93.0**	**93.0**			
Toluene-D8	2037-26-5	0.1	%		**99.3**	**97.1**			
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**102**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**82.4**	**88.3**			
4-Terphenyl-d14	1718-51-0	0.1	%		**92.0**	**105**			

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[19-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1101684-003**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**103**				
Toluene-D8	2037-26-5	0.1	%		**99.3**				
4-Bromofluorobenzene	460-00-4	0.1	%		**103**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1643063)								
HK1101684-001	N3-01 6.0-6.45M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.0	15.2	8.7
EG: Metals and Major Cations (QC Lot: 1642998)								
HK1101684-002	DUP A N3-01 6.0-6.45M	EG020: Copper	7440-50-8	1	mg/kg	10	12	15.1
		EG020: Lead	7439-92-1	1	mg/kg	36	41	14.3
		EG020: Zinc	7440-66-6	1	mg/kg	151	178	16.1
EG: Metals and Major Cations (QC Lot: 1642999)								
HK1101684-002	DUP A N3-01 6.0-6.45M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)								
HK1101684-001	N3-01 6.0-6.45M	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)								
HK1101684-001	N3-01 6.0-6.45M	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)								
HK1101562-005	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1639557)								
HK1101562-005	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)								
HK1101562-005	Anonymous	Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)								
HK1101562-005	Anonymous	Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)								
HK1101562-005	Anonymous	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)								
HK1101562-004	Anonymous	Naphthalene	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594) - Continued								
HK1101562-004	Anonymous	**Anthracene**	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)								
HK1101562-004	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1642998)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	94.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	88.9	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1642999)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.4	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	90.6	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	95.7	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	89.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	97.4	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	105	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	98.7	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1639557)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	96.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.0	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	87.4	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	72.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	92.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	97.8	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	88.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	110	----	59	122	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594) - Continued											
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	110	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	102	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	108	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	106	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	113	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	92.3	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	104	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	106	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	94.2	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	101	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	97.6	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1642998)										
HK1101684-001	N3-01 6.0-6.45M	**EG020: Copper**	7440-50-8	5 mg/kg	92.6	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1642999)										
HK1101684-001	N3-01 6.0-6.45M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	110	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)										
HK1101684-002	DUP A N3-01 6.0-6.45M	**C6 - C8 Fraction**	----	3 mg/kg	95.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)										
HK1101684-002	DUP A N3-01 6.0-6.45M	**C9 - C16 Fraction**	----	31 mg/kg	83.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	86.8	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. U

HK1101812

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 13**
Contact	: **MS ESTHER LEE**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1101812**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **esther.lee@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **20-JAN-2011**
Order number	: **----**			Issue Date	: **08-FEB-2011**
C-O-C number	: **H024585**			No. of samples received	: **8**
Site	: **----**			No. of samples analysed	: **8**

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1101812**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: N3-06 0.5M	N3-06 1.5M	N3-03 0.5M	N3-03 1.5M	DUP B N3-03 0.5M
Client sampling date / time				[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]
				HK1101812-001	HK1101812-002	HK1101812-003	HK1101812-004	HK1101812-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.2	11.7	14.4	15.7	15.6
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	6	20	17	9	12
EG020: Lead	7439-92-1	1	mg/kg	36	45	50	46	40
EG020: Zinc	7440-66-6	1	mg/kg	74	143	110	95	98
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	6	7	6	6	6
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL	Client sample ID	N3-06 0.5M	N3-06 1.5M	N3-03 0.5M	N3-03 1.5M	DUP B N3-03 0.5M
	Client sampling date / time	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]
Compound / CAS Number / LOR / Unit		HK1101812-001	HK1101812-002	HK1101812-003	HK1101812-004	HK1101812-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued						
Acenaphthene 83-32-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene 86-73-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene 85-01-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene 120-12-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene 206-44-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene 129-00-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene 56-55-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene 218-01-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene 205-99-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene 207-08-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene 50-32-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene 193-39-5 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene 53-70-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene 191-24-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate						
Phenol 108-95-2 0.50 mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB) 118-74-1 0.200 mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate 117-81-7 5.00 mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate					Surrogate control limits listed at end of this report.	
Dibromofluoromethane 1868-53-7 0.1 %		**85.4**	**92.0**	**91.7**	**92.2**	**89.8**
Toluene-D8 2037-26-5 0.1 %		**95.2**	**98.2**	**97.3**	**97.6**	**96.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**94.0**	**101**	**103**	**103**	**101**
EP-074S: VOC Surrogates					Surrogate control limits listed at end of this report.	
Dibromofluoromethane 1868-53-7 0.1 %		**85.4**	**92.0**	**91.7**	**92.2**	**89.8**
Toluene-D8 2037-26-5 0.1 %		**95.2**	**98.2**	**97.3**	**97.6**	**96.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**94.0**	**101**	**103**	**103**	**101**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates					Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl 321-60-8 0.1 %		**83.0**	**87.4**	**84.1**	**86.8**	**77.4**
4-Terphenyl-d14 1718-51-0 0.1 %		**99.2**	**106**	**97.4**	**107**	**93.7**

Sub-Matrix: WATER				Client sample ID	FIELD BLK A	EQ BLK A	TRIP BLANK		
				Client sampling date / time	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]		
Compound	CAS Number	LOR	Unit		HK1101812-006	HK1101812-007	HK1101812-008		
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	0.01	mg/L		<0.01	<0.01	----		
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	<20	----		
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	<20	----		
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	**1**	----		
EG020: Lead	7439-92-1	1	µg/L		<1	<1	----		
EG020: Zinc	7440-66-6	10	µg/L		<10	**24**	----		
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	----		
C9 - C16 Fraction	----	500	µg/L		<500	<500	----		
C17 - C35 Fraction	----	500	µg/L		<500	<500	----		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5		
Toluene	108-88-3	5	µg/L		<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10		
Styrene	100-42-5	5	µg/L		<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5		
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50		
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50		
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5		
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5		
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	<2	----		
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	<2	----		
Acenaphthylene	208-96-8	2	µg/L		<2	<2	----		

Sub-Matrix: WATER				Client sample ID	FIELD BLK A	EQ BLK A	TRIP BLANK		
				Client sampling date / time	[20-JAN-2011]	[20-JAN-2011]	[20-JAN-2011]		
Compound	CAS Number	LOR	Unit		HK1101812-006	HK1101812-007	HK1101812-008		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Acenaphthene	83-32-9	2	µg/L		<2	<2	----		
Fluorene	86-73-7	2	µg/L		<2	<2	----		
Phenanthrene	85-01-8	2	µg/L		<2	<2	----		
Anthracene	120-12-7	2	µg/L		<2	<2	----		
Fluoranthene	206-44-0	2	µg/L		<2	<2	----		
Pyrene	129-00-0	2	µg/L		<2	<2	----		
Benz(a)anthracene	56-55-3	2	µg/L		<2	<2	----		
Chrysene	218-01-9	2	µg/L		<2	<2	----		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	----		
Benzo(a)pyrene	50-32-8	2	µg/L		<2	<2	----		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	<2	----		
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	<2	----		
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	<2	----		
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	<20	----		
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	----		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**115**	**106**	----		
Toluene-D8	2037-26-5	0.1	%		**91.7**	**100**	----		
4-Bromofluorobenzene	460-00-4	0.1	%		**113**	**100**	----		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**115**	**106**	**108**		
Toluene-D8	2037-26-5	0.1	%		**91.7**	**100**	**99.8**		
4-Bromofluorobenzene	460-00-4	0.1	%		**113**	**100**	**101**		
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**43.0**	**34.4**	----		
Phenol-d6	13127-88-3	0.1	%		**37.0**	**30.3**	----		
2.4.6-Tribromophenol	118-79-6	0.1	%		**85.1**	**81.7**	----		
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**86.4**	**69.1**	----		
2-Fluorobiphenyl	321-60-8	0.1	%		**90.3**	**70.8**	----		
4-Terphenyl-d14	1718-51-0	0.1	%		**101**	**95.7**	----		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1643063)								
HK1101684-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.0	15.2	8.7
EG: Metals and Major Cations (QC Lot: 1642998)								
HK1101684-002	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	10	12	15.1
		EG020: Lead	7439-92-1	1	mg/kg	36	41	14.3
		EG020: Zinc	7440-66-6	1	mg/kg	151	178	16.1
EG: Metals and Major Cations (QC Lot: 1642999)								
HK1101684-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)								
HK1101684-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)								
HK1101684-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)								
HK1101562-005	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1639557)								
HK1101562-005	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)								
HK1101562-005	Anonymous	Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)								
HK1101562-005	Anonymous	Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)								
HK1101562-005	Anonymous	Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)								
HK1101562-004	Anonymous	Naphthalene	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594) - Continued								
HK1101562-004	Anonymous	**Anthracene**	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)								
HK1101562-004	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659073)								
HK1101812-006	FIELD BLK A	**EK025MD: Free Cyanide**	----	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations (QC Lot: 1647451)								
HK1101812-007	EQ BLK A	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1643001)								
HK1101812-007	EQ BLK A	**EG020: Copper**	7440-50-8	1	µg/L	1	1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	24	23	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1637584)								
HK1101352-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 1637583) - Continued								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1642998)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	94.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	88.9	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1642999)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.4	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	90.6	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	95.7	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	89.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	97.4	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	105	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	98.7	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1639557)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	96.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.0	----	79	134	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	87.4	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	72.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	92.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	97.8	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	88.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	110	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	110	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	102	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	108	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	106	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	113	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	92.3	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	104	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	106	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	94.2	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	101	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	97.6	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659073)											
EK025MD: Free Cyanide	----	0.01	mg/L	<0.01	0.1953 mg/L	95.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1647451)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	90.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1643001)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	89.0	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	90.4	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	91.2	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636349)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	82.7	----	17	170	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1636349) - Continued											
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	70.4	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1637584)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	113	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----
EP-075A: Phenols (QC Lot: 1639770)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	39.3	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1639770)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	70.0	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	69.2	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	74.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	80.7	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	82.4	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	85.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	89.2	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	90.9	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	89.4	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	88.4	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	96.4	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	76.6	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	93.7	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	# 93.0	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	97.4	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1639770)											

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075C: Phthalate Esters (QC Lot: 1639770) - Continued											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	83.4	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1639770)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	78.6	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1642998)										
HK1101684-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	92.6	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1642999)										
HK1101684-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	110	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)										
HK1101684-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	95.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)										
HK1101684-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	83.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	86.8	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659073)										
HK1101812-007	EQ BLK A	**EK025MD: Free Cyanide**	----	0.1953 mg/L	101	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1647451)										
HK1101812-006	FIELD BLK A	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	90.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1643001)										
HK1101812-006	FIELD BLK A	**EG020: Copper**	7440-50-8	100 µg/L	86.7	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	92.1	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	85.8	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Recovery Limits (%)

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. V

HK1101970

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 17
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1101970
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 21-JAN-2011
Order number	: ----			Issue Date	: 08-FEB-2011
C-O-C number	: H024584			No. of samples received	: 12
Site	: XRL 823A			No. of samples analysed	: 12

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1101970**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: R-02 0.5M; Client sampling date / time: [21-JAN-2011]; HK1101970-001	R-02 1.5M; [21-JAN-2011]; HK1101970-002	N3-06 3-3.45M; [21-JAN-2011]; HK1101970-003	R-04 0.5M; [21-JAN-2011]; HK1101970-004	R-04 1.5M; [21-JAN-2011]; HK1101970-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**9.7**	**11.5**	**16.1**	**15.7**	**12.2**
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**18**	**12**	**20**	**20**	**26**
EG020: Lead	7439-92-1	1	mg/kg	**191**	**47**	**50**	**42**	**74**
EG020: Zinc	7440-66-6	1	mg/kg	**66**	**103**	**103**	**66**	**343**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**5**	**6**	**10**	**18**	**11**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL	Client sample ID	R-02 0.5M	R-02 1.5M	N3-06 3-3.45M	R-04 0.5M	R-04 1.5M
	Client sampling date / time	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]
Compound / CAS Number / LOR / Unit		HK1101970-001	HK1101970-002	HK1101970-003	HK1101970-004	HK1101970-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued						
Acenaphthene 83-32-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene 86-73-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene 85-01-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene 120-12-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene 206-44-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene 129-00-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene 56-55-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene 218-01-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene 205-99-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene 207-08-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene 50-32-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene 193-39-5 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene 53-70-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene 191-24-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate						
Phenol 108-95-2 0.50 mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB) 118-74-1 0.200 mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate 117-81-7 5.00 mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate					Surrogate control limits listed at end of this report.	
Dibromofluoromethane 1868-53-7 0.1 %		**93.4**	**88.3**	**88.1**	**89.6**	**89.7**
Toluene-D8 2037-26-5 0.1 %		**98.8**	**95.6**	**95.5**	**96.2**	**97.5**
4-Bromofluorobenzene 460-00-4 0.1 %		**101**	**105**	**106**	**104**	**104**
EP-074S: VOC Surrogates					Surrogate control limits listed at end of this report.	
Dibromofluoromethane 1868-53-7 0.1 %		**93.4**	**88.3**	**88.1**	**89.6**	**89.7**
Toluene-D8 2037-26-5 0.1 %		**98.8**	**95.6**	**95.5**	**96.2**	**97.5**
4-Bromofluorobenzene 460-00-4 0.1 %		**101**	**105**	**106**	**104**	**104**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates					Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl 321-60-8 0.1 %		**99.5**	**95.2**	**84.8**	**91.4**	**94.4**
4-Terphenyl-d14 1718-51-0 0.1 %		**102**	**103**	**91.9**	**95.3**	**97.5**

Sub-Matrix: SOIL				Client sample ID	N3-06 4-4.45M	N3-02 3-3.45M	R-03 0.5M	N3-02 4.5-4.95M	R-03 1.5M
				Client sampling date / time	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1101970-006	HK1101970-007	HK1101970-008	HK1101970-009	HK1101970-010
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		12.2	12.4	13.9	16.0	13.7
EG: Metals and Major Cations									
EG020: Copper	7440-50-8	1	mg/kg		3	13	15	9	15
EG020: Lead	7439-92-1	1	mg/kg		29	61	75	24	48
EG020: Zinc	7440-66-6	1	mg/kg		101	115	42	38	134
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		5	7	22	3	8
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL				Client sample ID	N3-06 4-4.45M	N3-02 3-3.45M	R-03 0.5M	N3-02 4.5-4.95M	R-03 1.5M
				Client sampling date / time	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]	[21-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1101970-006	HK1101970-007	HK1101970-008	HK1101970-009	HK1101970-010
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**88.1**	**87.8**	**86.2**	**88.4**	**88.1**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**95.7**	**95.1**	**96.0**	**94.6**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**106**	**106**	**104**	**105**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**88.1**	**87.8**	**86.2**	**88.4**	**88.1**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**95.7**	**95.1**	**96.0**	**94.6**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**106**	**106**	**104**	**105**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**87.2**	**93.3**	**93.0**	**92.7**	**90.7**
4-Terphenyl-d14	1718-51-0	0.1	%		**94.9**	**103**	**97.8**	**101**	**101**

Sub-Matrix: SOIL			Client sample ID	N3-03 4.5-4.95M				
			Client sampling date / time	[20-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1101970-012				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**11.0**				
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**78**				
EG020: Lead	7439-92-1	1	mg/kg	**44**				
EG020: Zinc	7440-66-6	1	mg/kg	**137**				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**7**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2				
Trichloroethene	79-01-6	0.50	mg/kg	<0.50				
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50				
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500				
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500				
Acenaphthene	83-32-9	0.500	mg/kg	<0.500				
Fluorene	86-73-7	0.500	mg/kg	<0.500				

Sub-Matrix: SOIL				Client sample ID	N3-03 4.5-4.95M				
				Client sampling date / time	[20-JAN-2011]				
Compound	CAS Number	LOR	Unit		HK1101970-012				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Phenanthrene	85-01-8	0.500	mg/kg		<0.500				
Anthracene	120-12-7	0.500	mg/kg		<0.500				
Fluoranthene	206-44-0	0.500	mg/kg		<0.500				
Pyrene	129-00-0	0.500	mg/kg		<0.500				
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500				
Chrysene	218-01-9	0.500	mg/kg		<0.500				
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500				
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500				
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500				
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500				
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500				
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50				
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200				
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00				
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**90.2**				
Toluene-D8	2037-26-5	0.1	%		**95.8**				
4-Bromofluorobenzene	460-00-4	0.1	%		**104**				
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**90.2**				
Toluene-D8	2037-26-5	0.1	%		**95.8**				
4-Bromofluorobenzene	460-00-4	0.1	%		**104**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**90.5**				
4-Terphenyl-d14	1718-51-0	0.1	%		**97.2**				

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[21-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1101970-011**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**106**				
Toluene-D8	2037-26-5	0.1	%		**100**				
4-Bromofluorobenzene	460-00-4	0.1	%		**101**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1644730)								
HK1101871-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.4	15.7	2.1
HK1101970-008	R-03 0.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	13.9	14.4	3.5
EG: Metals and Major Cations (QC Lot: 1645473)								
HK1101970-002	R-02 1.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1101970-012	N3-03 4.5-4.95M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1646065)								
HK1101970-002	R-02 1.5M	EG020: Copper	7440-50-8	1	mg/kg	12	12	0.0
		EG020: Lead	7439-92-1	1	mg/kg	47	48	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	103	110	6.4
HK1101970-012	N3-03 4.5-4.95M	EG020: Copper	7440-50-8	1	mg/kg	78	74	4.7
		EG020: Lead	7439-92-1	1	mg/kg	44	46	2.4
		EG020: Zinc	7440-66-6	1	mg/kg	137	133	3.3
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)								
HK1101684-001	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)								
HK1101684-001	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)								
HK1101562-005	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)								
HK1101970-012	N3-03 4.5-4.95M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1639557)								
HK1101562-005	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1643328)								
HK1101970-012	N3-03 4.5-4.95M	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1643328) - Continued								
HK1101970-012	N3-03 4.5-4.95M	**2-Propanone (Acetone)**	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)								
HK1101562-005	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)								
HK1101970-012	N3-03 4.5-4.95M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)								
HK1101562-005	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)								
HK1101970-012	N3-03 4.5-4.95M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)								
HK1101562-005	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)								
HK1101970-012	N3-03 4.5-4.95M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)								
HK1101562-004	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)								
HK1101970-012	N3-03 4.5-4.95M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210) - Continued								
HK1101970-012	N3-03 4.5-4.95M	**Fluorene**	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)								
HK1101562-004	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)								
HK1101970-012	N3-03 4.5-4.95M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583) - Continued								
HK1101352-001	Anonymous	**Bromodichloromethane**	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1645473)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	106	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646065)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	109	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.3	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	113	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.4	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	90.6	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	95.7	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1639557)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	89.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	97.4	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	105	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	98.7	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	87.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	97.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	106	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	99.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1639557)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	96.4	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1643328)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074B: Oxygenated Compounds (QC Lot: 1643328) - Continued											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	89.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1639557)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	96.8	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.0	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1639557)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.7	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	92.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1639557)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1639594)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	87.4	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	72.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	92.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	97.8	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	88.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	110	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	110	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	102	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	108	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	106	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	113	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	92.3	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	104	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	106	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	74.2	----	50	118	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210) - Continued											
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	68.1	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	79.0	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	85.9	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	88.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	81.9	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	95.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	91.5	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	91.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	99.1	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	96.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	95.2	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	69.5	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	123	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	100	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1639594)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	94.2	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	101	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	97.6	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	97.1	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	91.4	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	93.5	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1645473)										
HK1101970-001	R-02 0.5M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	86.8	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646065)										
HK1101970-001	R-02 0.5M	**EG020: Copper**	7440-50-8	5 mg/kg	94.2	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)										
HK1101684-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	95.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)										
HK1101684-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	83.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	86.8	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. W

HK1102045

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 13
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102045
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 24-JAN-2011
Order number	: ----			Issue Date	: 09-FEB-2011
C-O-C number	: H024583			No. of samples received	: 6
Site	: SITE MNOPQR			No. of samples analysed	: 6

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1102045**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: P-01 0.5M	P-01 1.5M	R-04 3.0-3.45M	R-04 6.0-6.45M	N1-02 3.0-3.45M
				Client sampling date / time: [24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]
				HK1102045-001	HK1102045-002	HK1102045-003	HK1102045-004	HK1102045-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**19.0**	**22.9**	**11.7**	**11.7**	**24.8**
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	----	----	----
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	----	----	----
EG020: Copper	7440-50-8	1	mg/kg	**9**	**7**	**41**	**8**	**19**
EG020: Lead	7439-92-1	1	mg/kg	**722**	**303**	**46**	**30**	**69**
EG020: Nickel	7440-02-0	1	mg/kg	**4**	**4**	----	----	----
EG020: Zinc	7440-66-6	1	mg/kg	**94**	**176**	**203**	**73**	**159**
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	----	----	----
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**7**	**6**	**6**	**6**	**8**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	P-01 0.5M	P-01 1.5M	R-04 3.0-3.45M	R-04 6.0-6.45M	N1-02 3.0-3.45M
				Client sampling date / time	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102045-001	HK1102045-002	HK1102045-003	HK1102045-004	HK1102045-005
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.4**	**94.2**	**92.2**	**87.5**	**88.3**
Toluene-D8	2037-26-5	0.1	%		**101**	**96.5**	**97.9**	**96.9**	**97.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**99.1**	**104**	**104**	**104**	**104**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.4**	**94.2**	**92.2**	**87.5**	**88.3**
Toluene-D8	2037-26-5	0.1	%		**101**	**96.5**	**97.9**	**96.9**	**97.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**99.1**	**104**	**104**	**104**	**104**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**73.4**	**83.9**	**92.1**	**96.8**	**92.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**79.4**	**90.5**	**101**	**101**	**97.5**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**97.0**	**105**	----	----	----

Sub-Matrix: **SOIL**			*Client sample ID*	**P-01 0.5M**	**P-01 1.5M**	**R-04 3.0-3.45M**	**R-04 6.0-6.45M**	**N1-02 3.0-3.45M**
			Client sampling date / time	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]	[24-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102045-001**	**HK1102045-002**	**HK1102045-003**	**HK1102045-004**	**HK1102045-005**
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	**95.3**	**104**	----	----	----

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[24-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102045-006**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**100**				
Toluene-D8	2037-26-5	0.1	%		**99.7**				
4-Bromofluorobenzene	460-00-4	0.1	%		**104**				

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1646076)								
HK1102045-001	P-01 0.5M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	19.0	19.0	0.0
HK1102048-006	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	16.8	16.8	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)								
HK1102045-002	P-01 1.5M	**EK025MD: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1646065)								
HK1101970-002	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	12	12	0.0
		EG020: Lead	7439-92-1	1	mg/kg	47	48	0.0
		EG020: Nickel	7440-02-0	1	mg/kg	3	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	103	110	6.4
HK1101970-012	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	78	74	4.7
		EG020: Lead	7439-92-1	1	mg/kg	44	46	2.4
		EG020: Nickel	7440-02-0	1	mg/kg	3	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	137	133	3.3
EG: Metals and Major Cations (QC Lot: 1646068)								
HK1102045-002	P-01 1.5M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102048-006	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1646070)								
HK1102045-002	P-01 1.5M	**EG036: Mercury**	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)								
HK1101684-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)								
HK1101684-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)								
HK1102045-003	R-04 3.0-3.45M	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)								
HK1102045-003	R-04 3.0-3.45M	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1643328)								
HK1101970-012	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)								
HK1030347-002	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)								
HK1101970-012	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)								
HK1101970-012	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583) - Continued								
HK1101352-001	Anonymous	**Toluene**	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	95.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646065)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	98.5	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	109	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.3	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	106	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	113	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646068)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	106	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646070)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	89.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.4	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	90.6	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	95.7	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608) - Continued											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.8	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	96.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	93.5	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	87.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	97.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	106	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	99.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1643328)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	89.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	92.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	69.0	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	74.2	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	68.1	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	79.0	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	85.9	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	88.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	81.9	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	95.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	91.5	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	91.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	99.1	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	96.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	95.2	----	66	125	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210) - Continued											
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	69.5	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	123	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	100	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	97.1	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	91.4	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	93.5	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)										
HK1102045-001	P-01 0.5M	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.3	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646065)										
HK1101970-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	99.0	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	94.2	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1646065) - Continued										
HK1101970-001	Anonymous	**EG020: Lead**	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	96.8	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646068)										
HK1102045-001	P-01 0.5M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	106	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646070)										
HK1102045-001	P-01 0.5M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	75.0	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641732)										
HK1101684-002	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	95.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1641733)										
HK1101684-002	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	83.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	86.8	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)										
HK1102045-004	R-04 6.0-6.45M	**C6 - C8 Fraction**	----	3 mg/kg	88.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)										
HK1102045-004	R-04 6.0-6.45M	**C9 - C16 Fraction**	----	31 mg/kg	82.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	87.7	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. X

HK1102048

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 14**
Contact	: **MS ESTHER LEE**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1102048**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **esther.lee@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **24-JAN-2011**
Order number	: **----**			Issue Date	: **09-FEB-2011**
C-O-C number	: **H024586**			No. of samples received	: **11**
Site	: **XRL 823A SITE MNOPQR**			No. of samples analysed	: **11**

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 28-JAN-2011

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: **HK1102048**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: O-02 0.5M; Client sampling date / time: [22-JAN-2011]; HK1102048-001	O-02 1.5M; [22-JAN-2011]; HK1102048-002	N4-01 3.0-3.45M; [22-JAN-2011]; HK1102048-003	N4-01 4.5-4.95M; [22-JAN-2011]; HK1102048-004	N3-05 0.5M; [22-JAN-2011]; HK1102048-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**13.8**	**14.4**	**13.4**	**12.3**	**13.0**
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**12**	**8**	**18**	**24**	**9**
EG020: Lead	7439-92-1	1	mg/kg	**38**	**136**	**83**	**52**	**38**
EG020: Zinc	7440-66-6	1	mg/kg	**656**	**169**	**110**	**94**	**49**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**13**	**6**	**5**	**7**	**6**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL	Client sample ID	O-02 0.5M	O-02 1.5M	N4-01 3.0-3.45M	N4-01 4.5-4.95M	N3-05 0.5M
	Client sampling date / time	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]
Compound / CAS Number / LOR / Unit		HK1102048-001	HK1102048-002	HK1102048-003	HK1102048-004	HK1102048-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued						
Acenaphthene 83-32-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene 86-73-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene 85-01-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene 120-12-7 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene 206-44-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene 129-00-0 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene 56-55-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene 218-01-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene 205-99-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene 207-08-9 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene 50-32-8 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene 193-39-5 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene 53-70-3 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene 191-24-2 0.500 mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate						
Phenol 108-95-2 0.50 mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB) 118-74-1 0.200 mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate 117-81-7 5.00 mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate						Surrogate control limits listed at end of this report.
Dibromofluoromethane 1868-53-7 0.1 %		**85.0**	**88.9**	**87.7**	**88.0**	**90.2**
Toluene-D8 2037-26-5 0.1 %		**96.6**	**96.9**	**96.1**	**97.5**	**97.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**103**	**105**	**104**	**105**	**104**
EP-074S: VOC Surrogates						Surrogate control limits listed at end of this report.
Dibromofluoromethane 1868-53-7 0.1 %		**85.0**	**88.9**	**87.7**	**88.0**	**90.2**
Toluene-D8 2037-26-5 0.1 %		**96.6**	**96.9**	**96.1**	**97.5**	**97.6**
4-Bromofluorobenzene 460-00-4 0.1 %		**103**	**105**	**104**	**105**	**104**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates						Surrogate control limits listed at end of this report.
2-Fluorobiphenyl 321-60-8 0.1 %		**97.0**	**112**	**94.9**	**86.0**	**95.1**
4-Terphenyl-d14 1718-51-0 0.1 %		**96.3**	**113**	**99.5**	**97.2**	**95.8**

Sub-Matrix: SOIL				Client sample ID	N3-05 1.5M	N3-05 3.0-3.45M	O-01 0.5M	O-01 1.5M	N3-05 6.0-6.45M
				Client sampling date / time	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102048-006	HK1102048-007	HK1102048-008	HK1102048-009	HK1102048-011
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		16.8	16.5	14.8	13.6	27.2
EG: Metals and Major Cations									
EG020: Copper	7440-50-8	1	mg/kg		23	6	11	14	3
EG020: Lead	7439-92-1	1	mg/kg		53	33	48	53	11
EG020: Zinc	7440-66-6	1	mg/kg		168	61	116	126	232
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		12	6	10	8	32
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL				Client sample ID	N3-05 1.5M	N3-05 3.0-3.45M	O-01 0.5M	O-01 1.5M	N3-05 6.0-6.45M
				Client sampling date / time	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]	[22-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102048-006	HK1102048-007	HK1102048-008	HK1102048-009	HK1102048-011
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.9**	**90.8**	**90.3**	**92.3**	**94.4**
Toluene-D8	2037-26-5	0.1	%		**95.8**	**96.8**	**98.0**	**98.4**	**97.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**102**	**102**	**101**	**103**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.9**	**90.8**	**90.3**	**92.3**	**94.4**
Toluene-D8	2037-26-5	0.1	%		**95.8**	**96.8**	**98.0**	**98.4**	**97.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**104**	**102**	**102**	**101**	**103**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**93.5**	**90.8**	**94.7**	**85.9**	**86.1**
4-Terphenyl-d14	1718-51-0	0.1	%		**100**	**95.1**	**97.6**	**92.7**	**91.6**

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[22-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102048-010**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**101**				
Toluene-D8	2037-26-5	0.1	%		**99.5**				
4-Bromofluorobenzene	460-00-4	0.1	%		**102**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1646076)								
HK1102045-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	19.0	19.0	0.0
HK1102048-006	N3-05 1.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.8	16.8	0.0
EG: Metals and Major Cations (QC Lot: 1646065)								
HK1101970-002	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	12	12	0.0
		EG020: Lead	7439-92-1	1	mg/kg	47	48	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	103	110	6.4
HK1101970-012	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	78	74	4.7
		EG020: Lead	7439-92-1	1	mg/kg	44	46	2.4
		EG020: Zinc	7440-66-6	1	mg/kg	137	133	3.3
EG: Metals and Major Cations (QC Lot: 1646066)								
HK1102048-006	N3-05 1.5M	EG020: Copper	7440-50-8	1	mg/kg	23	24	5.0
		EG020: Lead	7439-92-1	1	mg/kg	53	48	11.0
		EG020: Zinc	7440-66-6	1	mg/kg	168	167	0.0
HK1102074-005	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	181	193	6.4
		EG020: Lead	7439-92-1	1	mg/kg	43	43	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	154	161	4.4
EG: Metals and Major Cations (QC Lot: 1646068)								
HK1102045-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102048-006	N3-05 1.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)								
HK1102045-003	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)								
HK1102045-003	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)								
HK1101970-012	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1643328)								
HK1101970-012	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)								
HK1101970-012	Anonymous	Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 1643328) - Continued								
HK1101970-012	Anonymous	**Methylene chloride**	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)								
HK1101970-012	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1645610)								
HK1102045-003	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)								
HK1101970-012	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1645610)								
HK1102045-003	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1637583)								
HK1101352-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1637583)								
HK1101352-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1646065)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	109	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	95.3	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	113	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646066)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1646066) - Continued											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	98.5	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	109	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	106	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1646068)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	106	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.8	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	96.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	93.5	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	87.0	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	97.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	106	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	99.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1643328)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	89.4	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	92.7	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	74.2	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	68.1	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	79.0	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	85.9	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	88.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	81.9	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	95.0	----	59	122	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1643210) - Continued											
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	91.5	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	91.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	99.1	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	96.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	95.2	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	69.5	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	123	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	100	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	104	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1645610)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	104	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	86.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	101	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	104	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	98.2	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	92.9	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	104	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	102	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	99.5	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	111	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	95.7	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	108	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	69.0	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	108	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	101	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	103	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1643210)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	97.1	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	91.4	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	93.5	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1645610)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	103	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	115	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	74.9	----	56	117	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1637583) - Continued											
Toluene	108-88-3	5	µg/L	<5	10 µg/L	110	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	86.5	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	105	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	94.0	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.3	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1637583)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	87.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1637583)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	93.0	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	# 117	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1637583)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1646065)										
HK1101970-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	94.2	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646066)										
HK1102048-005	N3-05 0.5M	**EG020: Copper**	7440-50-8	5 mg/kg	83.5	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1646068)										
HK1102045-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	106	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)										
HK1102045-004	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	88.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)										
HK1102045-004	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	82.0	----	50	130	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609) - Continued										
HK1102045-004	Anonymous	**C17 - C35 Fraction**	----	75 mg/kg	87.7	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. Y

HK1102151

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 20
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102151
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 25-JAN-2011
Order number	: ----			Issue Date	: 10-FEB-2011
C-O-C number	: H010617			No. of samples received	: 11
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 11

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 31-JAN-2011

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: **HK1102151**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: N1-01 3-3.45M Client sampling date / time: [25-JAN-2011] HK1102151-002	Client sample ID: R-02 3-3.45M Client sampling date / time: [24-JAN-2011] HK1102151-003	Client sample ID: P-02 0.5M Client sampling date / time: [25-JAN-2011] HK1102151-004	Client sample ID: N1-02 4.5-4.95M Client sampling date / time: [24-JAN-2011] HK1102151-005	Client sample ID: R-03 3-3.45M Client sampling date / time: [25-JAN-2011] HK1102151-006
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.1	11.8	19.2	20.6	7.3
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	----	----	<1	----	----
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	----	----	0.3	----	----
EG020: Copper	7440-50-8	1	mg/kg	113	13	5	30	26
EG020: Lead	7439-92-1	1	mg/kg	76	78	97	51	56
EG020: Nickel	7440-02-0	1	mg/kg	----	----	6	----	----
EG020: Zinc	7440-66-6	1	mg/kg	168	83	175	107	94
EG036: Mercury	7439-97-6	0.2	mg/kg	----	----	<0.2	----	----
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	7	11	10	3	4
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	N1-01 3-3.45M	R-02 3-3.45M	P-02 0.5M	N1-02 4.5-4.95M	R-03 3-3.45M
				Client sampling date / time	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102151-002	HK1102151-003	HK1102151-004	HK1102151-005	HK1102151-006
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	<0.1	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.0**	**89.4**	**83.9**	**81.6**	**83.2**
Toluene-D8	2037-26-5	0.1	%		**97.2**	**97.4**	**92.9**	**93.5**	**93.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**101**	**108**	**108**	**107**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.0**	**89.4**	**83.9**	**81.6**	**83.2**
Toluene-D8	2037-26-5	0.1	%		**97.2**	**97.4**	**92.9**	**93.5**	**93.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**102**	**101**	**108**	**108**	**107**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**93.0**	**97.3**	**92.9**	**89.0**	**96.6**
4-Terphenyl-d14	1718-51-0	0.1	%		**98.2**	**93.0**	**100**	**96.4**	**102**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	**84.4**	----	----

Sub-Matrix: **SOIL**				*Client sample ID*	**N1-01 3-3.45M**	**R-02 3-3.45M**	**P-02 0.5M**	**N1-02 4.5-4.95M**	**R-03 3-3.45M**
				Client sampling date / time	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102151-002**	**HK1102151-003**	**HK1102151-004**	**HK1102151-005**	**HK1102151-006**
EP-066S: PCB Surrogate - Continued									Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%		----	----	**73.6**	----	----

Sub-Matrix: SOIL			Client sample ID	R-03 4.5-4.95M	R-02 6-6.45M	R-02 4.5-4.95M	P-02 1.5M	
			Client sampling date / time	[25-JAN-2011]	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]	
Compound	CAS Number	LOR	Unit	HK1102151-007	HK1102151-008	HK1102151-009	HK1102151-010	
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**17.5**	**8.6**	**17.0**	**19.8**	
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	----	----	----	<1	
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	----	----	----	<0.2	
EG020: Copper	7440-50-8	1	mg/kg	**14**	**34**	**49**	**4**	
EG020: Lead	7439-92-1	1	mg/kg	**26**	**40**	**25**	**73**	
EG020: Nickel	7440-02-0	1	mg/kg	----	----	----	**3**	
EG020: Zinc	7440-66-6	1	mg/kg	**67**	**74**	**79**	**84**	
EG036: Mercury	7439-97-6	0.2	mg/kg	----	----	----	<0.2	
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**5**	**3**	**3**	**5**	
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	
EP-074L: Methyl-tert-butyl Ether								

Sub-Matrix: SOIL				Client sample ID	R-03 4.5-4.95M	R-02 6-6.45M	R-02 4.5-4.95M	P-02 1.5M	
				Client sampling date / time	[25-JAN-2011]	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]	
Compound	CAS Number	LOR	Unit		HK1102151-007	HK1102151-008	HK1102151-009	HK1102151-010	
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	----	<0.1	
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**84.9**	**87.2**	**87.6**	**86.6**	
Toluene-D8	2037-26-5	0.1	%		**95.4**	**94.1**	**95.6**	**94.9**	
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**105**	**106**	**106**	
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**84.9**	**87.2**	**87.6**	**86.6**	
Toluene-D8	2037-26-5	0.1	%		**95.4**	**94.1**	**95.6**	**94.9**	
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**105**	**106**	**106**	
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**89.5**	**87.7**	**89.8**	**80.9**	
4-Terphenyl-d14	1718-51-0	0.1	%		**96.6**	**99.3**	**91.9**	**89.5**	
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	----	**56.2**	

Sub-Matrix: **SOIL**			*Client sample ID*	**R-03 4.5-4.95M**	**R-02 6-6.45M**	**R-02 4.5-4.95M**	**P-02 1.5M**	
			Client sampling date / time	[25-JAN-2011]	[25-JAN-2011]	[24-JAN-2011]	[25-JAN-2011]	
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102151-007**	**HK1102151-008**	**HK1102151-009**	**HK1102151-010**	
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	----	----	----	**63.8**	

Sub-Matrix: WATER				Client sample ID	FIELD BLANK	TRIP BLANK			
				Client sampling date / time	[24-JAN-2011]	[25-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1102151-001	HK1102151-011			
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	----			
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	----			
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	----			
EG020: Lead	7439-92-1	1	µg/L		<1	----			
EG020: Zinc	7440-66-6	10	µg/L		<10	----			
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	----			
C9 - C16 Fraction	----	500	µg/L		<500	----			
C17 - C35 Fraction	----	500	µg/L		<500	----			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5			
Toluene	108-88-3	5	µg/L		<5	<5			
Ethylbenzene	100-41-4	5	µg/L		<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10			
Styrene	100-42-5	5	µg/L		<5	<5			
ortho-Xylene	95-47-6	5	µg/L		<5	<5			
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50			
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50			
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50			
Trichloroethene	79-01-6	5	µg/L		<5	<5			
Tetrachloroethene	127-18-4	5	µg/L		<5	<5			
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5			
Bromodichloromethane	75-27-4	5	µg/L		<5	<5			
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5			
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	----			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	----			
Acenaphthylene	208-96-8	2	µg/L		<2	----			
Acenaphthene	83-32-9	2	µg/L		<2	----			
Fluorene	86-73-7	2	µg/L		<2	----			

Sub-Matrix: WATER				Client sample ID	FIELD BLANK	TRIP BLANK			
				Client sampling date / time	[24-JAN-2011]	[25-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1102151-001	HK1102151-011			
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Phenanthrene	85-01-8	2	µg/L		<2	----			
Anthracene	120-12-7	2	µg/L		<2	----			
Fluoranthene	206-44-0	2	µg/L		<2	----			
Pyrene	129-00-0	2	µg/L		<2	----			
Benz(a)anthracene	56-55-3	2	µg/L		<2	----			
Chrysene	218-01-9	2	µg/L		<2	----			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	----			
Benzo(a)pyrene	50-32-8	2	µg/L		<2	----			
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	----			
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	----			
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	----			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	----			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	----			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**97.3**	----			
Toluene-D8	2037-26-5	0.1	%		**101**	----			
4-Bromofluorobenzene	460-00-4	0.1	%		**97.0**	----			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**97.3**	**110**			
Toluene-D8	2037-26-5	0.1	%		**101**	**103**			
4-Bromofluorobenzene	460-00-4	0.1	%		**97.0**	**99.4**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**46.9**	----			
Phenol-d6	13127-88-3	0.1	%		**33.4**	----			
2.4.6-Tribromophenol	118-79-6	0.1	%		**92.0**	----			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**80.6**	----			
2-Fluorobiphenyl	321-60-8	0.1	%		**84.3**	----			
4-Terphenyl-d14	1718-51-0	0.1	%		**110**	----			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1647018)								
HK1102079-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	12.9	12.7	1.9
HK1102175-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	53.8	51.2	4.9
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)								
HK1102045-002	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1647138)								
HK1102151-004	P-02 0.5M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1647139)								
HK1102151-003	R-02 3-3.45M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)								
HK1102045-003	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)								
HK1102045-003	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)								
HK1102151-006	R-03 3-3.45M	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)								
HK1102151-006	R-03 3-3.45M	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)								
HK1101970-012	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)								
HK1102151-006	R-03 3-3.45M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1643328)								
HK1101970-012	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1646207)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1646207) - Continued								
HK1102151-006	R-03 3-3.45M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)								
HK1102151-006	R-03 3-3.45M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)								
HK1102151-006	R-03 3-3.45M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)								
HK1101970-012	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)								
HK1102151-006	R-03 3-3.45M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)								
HK1030347-002	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1645610)								
HK1102045-003	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1646209)								

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1646209) - Continued								
HK1102151-006	R-03 3-3.45M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1645610)								
HK1102045-003	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1646209)								
HK1102151-006	R-03 3-3.45M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1647451)								
HK1101812-007	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)								
HK1102151-001	FIELD BLANK	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)								
HK1102151-001	FIELD BLANK	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1647204)								
HK1102151-001	FIELD BLANK	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1647204) - Continued								
HK1102151-001	FIELD BLANK	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)								
HK1102151-001	FIELD BLANK	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)								
HK1102151-001	FIELD BLANK	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204)								
HK1102151-001	FIELD BLANK	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	95.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1647137)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	94.1	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	92.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	107	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	91.4	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	109	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1647138)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.02	0.1 mg/kg	93.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1647139)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	100	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	90.8	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	96.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	93.5	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	99.1	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	85.3	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	87.0	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	87.0	----	66	128	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1643328) - Continued											
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	97.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	106	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	99.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.8	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	107	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1643328)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	89.4	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1646207)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	76.3	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1643328)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.4	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1643328)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.0	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	92.7	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	92.5	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.2	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1643328)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	69.0	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1645610)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	104	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	86.6	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	101	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	104	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	98.2	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	92.9	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	104	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	102	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	99.5	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	111	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	95.7	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	108	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	69.0	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	108	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	101	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	103	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1646209)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	89.0	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	73.5	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	87.9	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	90.9	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	86.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	79.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	93.3	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	90.2	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	87.9	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	100	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	84.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	98.1	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	73.4	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	92.4	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	88.8	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	90.7	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1645610)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	103	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	115	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1646209)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1646209) - Continued											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	100	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	91.9	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	101	----	68	128	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1647451)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	90.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1647126)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	90.2	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	93.6	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	96.3	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646220)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	91.7	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	95.7	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	116	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	95.2	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	96.4	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	92.2	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	97.1	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	86.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1647204)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	106	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.0	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----
EP-075A: Phenols (QC Lot: 1639770)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	39.3	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1639770)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	70.0	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	69.2	----	43	110	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1639770) - Continued											
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	74.8	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	80.7	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	82.4	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	85.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	89.2	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	90.9	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	89.4	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	88.4	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	96.4	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	76.6	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	93.7	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	# 93.0	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	97.4	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1639770)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	83.4	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1639770)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	78.6	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)										
HK1102045-001	Anonymous	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.3	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1647137)										
HK1102151-002	N1-01 3-3.45M	**EG020: Cadmium**	7440-43-9	5 mg/kg	94.6	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	81.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1647138)										
HK1102079-001	Anonymous	**EG036: Mercury**	7439-97-6	0.1 mg/kg	91.9	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1647139)										
HK1102151-002	N1-01 3-3.45M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	76.1	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645608)										
HK1102045-004	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	88.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1645609)										
HK1102045-004	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	82.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	87.7	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)										
HK1102151-010	P-02 1.5M	**C6 - C8 Fraction**	----	3 mg/kg	91.3	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)										
HK1102151-010	P-02 1.5M	**C9 - C16 Fraction**	----	31 mg/kg	87.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	93.4	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1647451)										
HK1101812-006	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	90.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1647126)										
HK1102151-001	FIELD BLANK	**EG020: Copper**	7440-50-8	100 µg/L	91.9	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	96.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	94.8	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate - Continued			
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. Z

HK1102213

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 15
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102213
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 26-JAN-2011
Order number	: ----			Issue Date	: 11-FEB-2011
C-O-C number	: H010618			No. of samples received	: 12
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 12

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 31-JAN-2011

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: **HK1102213**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: O-01 3.0-3.45M Client sampling date / time: [26-JAN-2011] HK1102213-001	O-01 4.5-4.95M [26-JAN-2011] HK1102213-002	O-02 3.0-3.45M [26-JAN-2011] HK1102213-003	O-02 4.5-4.95M [26-JAN-2011] HK1102213-004	O-02 6.0-6.45M [26-JAN-2011] HK1102213-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**8.0**	**10.2**	**11.3**	**12.6**	**17.4**
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**71**	**51**	**9**	**15**	**7**
EG020: Lead	7439-92-1	1	mg/kg	**35**	**96**	**29**	**39**	**36**
EG020: Zinc	7440-66-6	1	mg/kg	**117**	**154**	**72**	**91**	**52**
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**5**	**7**	**7**	**6**	**5**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL				Client sample ID	O-01 3.0-3.45M	O-01 4.5-4.95M	O-02 3.0-3.45M	O-02 4.5-4.95M	O-02 6.0-6.45M
				Client sampling date / time	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102213-001	HK1102213-002	HK1102213-003	HK1102213-004	HK1102213-005
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.0**	**92.0**	**90.5**	**92.4**	**88.1**
Toluene-D8	2037-26-5	0.1	%		**99.1**	**96.9**	**97.3**	**97.2**	**99.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**101**	**101**	**102**	**100**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.0**	**92.0**	**90.5**	**92.4**	**88.1**
Toluene-D8	2037-26-5	0.1	%		**99.1**	**96.9**	**97.3**	**97.2**	**99.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**101**	**101**	**102**	**100**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**92.5**	**80.0**	**85.7**	**87.7**	**88.8**
4-Terphenyl-d14	1718-51-0	0.1	%		**95.6**	**92.6**	**93.4**	**93.3**	**93.7**

Sub-Matrix: SOIL				Client sample ID	Q-06 0.5M	Q-06 1.5M	Q-07 0.5M	Q-07 1.5M	R-01 0.5M
				Client sampling date / time	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102213-006	HK1102213-007	HK1102213-008	HK1102213-009	HK1102213-011
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		12.3	17.9	12.7	14.8	16.7
EG: Metals and Major Cations									
EG020: Copper	7440-50-8	1	mg/kg		22	5	2	4	10
EG020: Lead	7439-92-1	1	mg/kg		56	28	24	32	48
EG020: Zinc	7440-66-6	1	mg/kg		111	32	19	38	64
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		11	5	8	6	7
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500

Sub-Matrix: SOIL				Client sample ID	Q-06 0.5M	Q-06 1.5M	Q-07 0.5M	Q-07 1.5M	R-01 0.5M
				Client sampling date / time	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]	[26-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102213-006	HK1102213-007	HK1102213-008	HK1102213-009	HK1102213-011
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.7**	**93.2**	**91.2**	**91.3**	**90.6**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**98.3**	**98.1**	**98.2**	**95.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**102**	**101**	**103**	**104**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.7**	**93.2**	**91.2**	**91.3**	**90.6**
Toluene-D8	2037-26-5	0.1	%		**96.6**	**98.3**	**98.1**	**98.2**	**95.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**102**	**101**	**103**	**104**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**87.4**	**86.1**	**88.1**	**83.7**	**89.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**90.7**	**88.0**	**91.6**	**84.9**	**89.3**

Sub-Matrix: SOIL			Client sample ID	R-01 1.5M				
			Client sampling date / time	[26-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1102213-012				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**13.8**				
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**14**				
EG020: Lead	7439-92-1	1	mg/kg	**62**				
EG020: Zinc	7440-66-6	1	mg/kg	**147**				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**8**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2				
Trichloroethene	79-01-6	0.50	mg/kg	<0.50				
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50				
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500				
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500				
Acenaphthene	83-32-9	0.500	mg/kg	<0.500				
Fluorene	86-73-7	0.500	mg/kg	<0.500				

Sub-Matrix: SOIL			Client sample ID	R-01 1.5M				
			Client sampling date / time	[26-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1102213-012				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued								
Phenanthrene	85-01-8	0.500	mg/kg	<0.500				
Anthracene	120-12-7	0.500	mg/kg	<0.500				
Fluoranthene	206-44-0	0.500	mg/kg	<0.500				
Pyrene	129-00-0	0.500	mg/kg	<0.500				
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500				
Chrysene	218-01-9	0.500	mg/kg	<0.500				
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500				
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500				
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500				
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500				
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500				
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50				
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200				
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.9**				
Toluene-D8	2037-26-5	0.1	%	**97.2**				
4-Bromofluorobenzene	460-00-4	0.1	%	**107**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**99.9**				
Toluene-D8	2037-26-5	0.1	%	**97.2**				
4-Bromofluorobenzene	460-00-4	0.1	%	**107**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**92.5**				
4-Terphenyl-d14	1718-51-0	0.1	%	**95.6**				

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[26-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102213-010**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.4**				
Toluene-D8	2037-26-5	0.1	%		**96.8**				
4-Bromofluorobenzene	460-00-4	0.1	%		**107**				

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1648095)								
HK1102189-026	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	9.2	9.1	1.6
HK1102189-036	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	17.5	17.1	2.4
EA/ED: Physical and Aggregate Properties (QC Lot: 1648096)								
HK1102213-006	Q-06 0.5M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	12.3	12.3	0.0
HK1102221-005	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	37.5	37.1	1.0
EG: Metals and Major Cations (QC Lot: 1647878)								
HK1102213-002	O-01 4.5-4.95M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102213-012	R-01 1.5M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1648847)								
HK1102175-002	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	61	62	0.0
		EG020: Lead	7439-92-1	1	mg/kg	55	54	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	203	203	0.0
HK1102175-011	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	44	46	3.8
		EG020: Lead	7439-92-1	1	mg/kg	37	39	3.9
		EG020: Zinc	7440-66-6	1	mg/kg	129	133	3.1
EG: Metals and Major Cations (QC Lot: 1648848)								
HK1102213-004	O-02 4.5-4.95M	**EG020: Copper**	7440-50-8	1	mg/kg	15	13	15.7
		EG020: Lead	7439-92-1	1	mg/kg	39	37	4.0
		EG020: Zinc	7440-66-6	1	mg/kg	91	88	3.0
HK1102221-002	Anonymous	**EG020: Copper**	7440-50-8	1	mg/kg	92	89	2.8
		EG020: Lead	7439-92-1	1	mg/kg	46	45	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	159	153	3.7
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)								
HK1102151-006	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)								
HK1102151-006	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)								
HK1102213-008	Q-07 0.5M	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)								
HK1102213-008	Q-07 0.5M	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207) - Continued								
HK1102151-006	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1646207)								
HK1102151-006	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1646209)								
HK1102151-006	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1646209)								
HK1102151-006	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204) - Continued								
HK1102151-001	Anonymous	**Benzene**	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1647204)								
HK1102151-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1647878)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	98.6	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1648847)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	110	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	105	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1648848)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	94.6	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.7	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	108	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	99.1	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	85.3	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	87.0	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	110	----	74	138	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	97.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	96.9	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.8	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	107	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1646207)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	76.3	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.4	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	92.5	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.2	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1646209)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	89.0	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	73.5	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	87.9	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	90.9	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	86.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	79.4	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	93.3	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	90.2	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	87.9	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	100	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	84.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	98.1	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	73.4	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	92.4	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	88.8	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	90.7	----	57	123	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1646209)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	100	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	91.9	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	101	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	95.2	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	96.4	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	92.2	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	97.1	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	86.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1647204)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	106	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.0	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1647878)										
HK1102213-001	O-01 3.0-3.45M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	92.6	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1648847)										
HK1102175-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1648848)										

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1648848) - Continued										
HK1102213-003	O-02 3.0-3.45M	**EG020: Copper**	7440-50-8	5 mg/kg	81.8	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646208)										
HK1102151-010	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	91.3	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646210)										
HK1102151-010	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	87.0	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	93.4	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)										
HK1102213-009	Q-07 1.5M	**C6 - C8 Fraction**	----	3 mg/kg	99.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)										
HK1102213-009	Q-07 1.5M	**C9 - C16 Fraction**	----	31 mg/kg	78.9	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	70.2	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. AA

HK1102349

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 15
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102349
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 27-JAN-2011
Order number	: ----			Issue Date	: 14-FEB-2011
C-O-C number	: H020140			No. of samples received	: 9
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 9

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 31-JAN-2011

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: **HK1102349**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: R-01 3.0-3.45M	N3-04 3.0-3.45M	N3-04 4.5-4.95M	P-07 0.5M	P-07 1.5M
				Client sampling date / time: [27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]
				HK1102349-001	HK1102349-002	HK1102349-003	HK1102349-004	HK1102349-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**8.7**	**9.7**	**16.9**	**18.8**	**18.9**
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	----	----	----	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	----	----	----	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	**25**	**20**	**38**	**5**	**10**
EG020: Lead	7439-92-1	1	mg/kg	**88**	**98**	**33**	**117**	**307**
EG020: Nickel	7440-02-0	1	mg/kg	----	----	----	**4**	**5**
EG020: Zinc	7440-66-6	1	mg/kg	**121**	**171**	**68**	**92**	**105**
EG036: Mercury	7439-97-6	0.2	mg/kg	----	----	----	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**	**6**	**3**	**6**	**6**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	R-01	N3-04	N3-04	P-07	P-07
					3.0-3.45M	3.0-3.45M	4.5-4.95M	0.5M	1.5M
				Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102349-001	HK1102349-002	HK1102349-003	HK1102349-004	HK1102349-005
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		----	----	----	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**95.3**	**95.4**	**103**	**99.2**	**95.3**
Toluene-D8	2037-26-5	0.1	%		**98.3**	**99.4**	**103**	**98.5**	**98.5**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**102**	**99.0**	**97.8**	**102**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**95.3**	**95.4**	**103**	**99.2**	**95.3**
Toluene-D8	2037-26-5	0.1	%		**98.3**	**99.4**	**103**	**98.5**	**98.5**
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**102**	**99.0**	**97.8**	**102**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**98.4**	**90.7**	**86.5**	**61.4**	**80.8**
4-Terphenyl-d14	1718-51-0	0.1	%		**109**	**96.6**	**93.3**	**64.8**	**86.1**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		----	----	----	**107**	**60.5**

Sub-Matrix: **SOIL**			*Client sample ID*	**R-01 3.0-3.45M**	**N3-04 3.0-3.45M**	**N3-04 4.5-4.95M**	**P-07 0.5M**	**P-07 1.5M**
			Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102349-001**	**HK1102349-002**	**HK1102349-003**	**HK1102349-004**	**HK1102349-005**
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	----	----	----	**99.6**	**56.7**

Sub-Matrix: SOIL				Client sample ID	P-04 0.5M	Q-06 3.0-3.45M	M-07 3.0-3.45M		
				Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]		
Compound	CAS Number	LOR	Unit		HK1102349-006	HK1102349-007	HK1102349-008		
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**18.1**	**14.7**	**13.2**		
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	1	mg/kg		<1	----	<1		
EG: Metals and Major Cations									
EG020: Cadmium	7440-43-9	0.2	mg/kg		<0.2	----	<0.2		
EG020: Copper	7440-50-8	1	mg/kg		**22**	**12**	**17**		
EG020: Lead	7439-92-1	1	mg/kg		**942**	**51**	**75**		
EG020: Nickel	7440-02-0	1	mg/kg		**5**	----	**7**		
EG020: Zinc	7440-66-6	1	mg/kg		**149**	**59**	**82**		
EG036: Mercury	7439-97-6	0.2	mg/kg		<0.2	----	<0.2		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		**7**	**6**	**16**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20		
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50		
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50		
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00		
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50		
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50		
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50		
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0		
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2		
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50		
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50		
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50		
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50		
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50		

Sub-Matrix: SOIL				Client sample ID	P-04 0.5M	Q-06 3.0-3.45M	M-07 3.0-3.45M		
				Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]		
Compound	CAS Number	LOR	Unit		HK1102349-006	HK1102349-007	HK1102349-008		
EP-074L: Methyl-tert-butyl Ether - Continued									
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	----	<0.1		
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500		
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500		
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500		
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500		
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500		
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500		
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500		
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500		
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500		
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500		
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500		
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50		
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200		
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.2**	**95.4**	**93.9**		
Toluene-D8	2037-26-5	0.1	%		**98.9**	**97.7**	**97.4**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**99.9**	**98.5**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**93.2**	**95.4**	**93.9**		
Toluene-D8	2037-26-5	0.1	%		**98.9**	**97.7**	**97.4**		
4-Bromofluorobenzene	460-00-4	0.1	%		**101**	**99.9**	**98.5**		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**67.9**	**78.4**	**74.0**		
4-Terphenyl-d14	1718-51-0	0.1	%		**78.2**	**86.4**	**91.6**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**104**	----	**90.9**		
Dibutylchlorendate	1770-80-5	0.1	%		**96.7**	----	**97.7**		

Sub-Matrix: **WATER**				*Client sample ID*	**TRIP BLANK**				
				Client sampling date / time	[27-JAN-2011]				
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102349-009**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**108**				
Toluene-D8	2037-26-5	0.1	%		**100**				
4-Bromofluorobenzene	460-00-4	0.1	%		**102**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1650906)								
HK1102312-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.0	9.8	12.1
HK1102349-005	P-07 1.5M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.9	19.0	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)								
HK1102045-002	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650813)								
HK1102349-002	N3-04 3.0-3.45M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	20	20	0.0
		EG020: Lead	7439-92-1	1	mg/kg	98	105	7.1
		EG020: Nickel	7440-02-0	1	mg/kg	2	2	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	171	162	5.6
HK1102418-003	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	14	15	9.6
		EG020: Lead	7439-92-1	1	mg/kg	55	61	11.1
		EG020: Nickel	7440-02-0	1	mg/kg	5	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	91	93	2.2
EG: Metals and Major Cations (QC Lot: 1650819)								
HK1102312-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102349-005	P-07 1.5M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650822)								
HK1102418-003	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1102418-019	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)								
HK1102213-008	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)								
HK1102213-008	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)								
HK1102151-006	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457)								
HK1102349-005	P-07 1.5M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457) - Continued								
HK1102349-005	P-07 1.5M	**Styrene**	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1646207)								
HK1102151-006	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1649457)								
HK1102349-005	P-07 1.5M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1649457)								
HK1102349-005	P-07 1.5M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1649457)								
HK1102349-005	P-07 1.5M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)								
HK1102151-006	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1649457)								
HK1102349-005	P-07 1.5M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)								
HK1030347-002	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581) - Continued								
HK1102199-001	Anonymous	**Benzo(g.h.i)perylene**	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1647204)								
HK1102151-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
		LOR	Unit	Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
						LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680) - Continued											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	95.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650813)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.1	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650819)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	112	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650822)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	85.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	110	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	97.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	96.9	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1646207)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.8	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.3	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	99.9	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	107	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	92.6	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	96.9	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	102	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	94.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1646207)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	76.3	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1649457)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	102	----	64	123	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074E: Halogenated Aliphatics (QC Lot: 1646207)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	99.4	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	105	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1649457)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1646207)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	92.5	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	89.2	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1649457)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	94.5	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1646207)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1649457)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1645535)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	69.0	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	65.7	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	52.9	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	67.9	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	73.1	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	71.0	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	64.1	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	76.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	73.9	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	75.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	79.2	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	79.4	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	73.1	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	75.9	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	90.2	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	72.2	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	74.4	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	68.5	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	78.9	----	45	125	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581) - Continued											
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	109	----	68	128	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	95.2	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	96.4	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	92.2	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	97.1	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	86.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1647204)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	106	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.0	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----

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

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)										
HK1102045-001	Anonymous	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.3	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650813)										
HK1102349-001	R-01 3.0-3.45M	**EG020: Cadmium**	7440-43-9	5 mg/kg	92.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	93.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650819)										

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1650819) - Continued										
HK1102312-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	117	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650822)										
HK1102418-018	Anonymous	**EG036: Mercury**	7439-97-6	0.1 mg/kg	75.0	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)										
HK1102213-009	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	99.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)										
HK1102213-009	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	78.9	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	70.2	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. AB

HK1102418

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 26
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102418
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 2
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsglobal.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 28-JAN-2011
Order number	: ----			Issue Date	: 13-FEB-2012
C-O-C number	: H020141-H020142			No. of samples received	: 25
Site	: XRL 823A MNOPQR			No. of samples analysed	: 25

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 31-JAN-2011

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: **HK1102418**

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.
Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.
Water sample(s) were filtered prior to dissolved metal analysis.
Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: M-06 6-6.45M; Client sampling date / time: [28-JAN-2011]; HK1102418-001	P-01 4.5-4.95M; [28-JAN-2011]; HK1102418-002	M-06 4.5-4.95M; [28-JAN-2011]; HK1102418-003	P-03 0.5M; [28-JAN-2011]; HK1102418-004	P-01 3.0-3.45M; [28-JAN-2011]; HK1102418-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	20.9	16.4	16.4	21.0	4.7
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	118	28	14	6	44
EG020: Lead	7439-92-1	1	mg/kg	118	74	55	234	58
EG020: Nickel	7440-02-0	1	mg/kg	5	2	5	3	2
EG020: Zinc	7440-66-6	1	mg/kg	128	100	91	89	120
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	10	5	8	10	5
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	365	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				M-06 6-6.45M	P-01 4.5-4.95M	M-06 4.5-4.95M	P-03 0.5M	P-01 3.0-3.45M
			Client sample ID					
			Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit	HK1102418-001	HK1102418-002	HK1102418-003	HK1102418-004	HK1102418-005
EP-066: Polychlorinated Biphenyls								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	**0.572**	<0.500
Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**100**	**104**	**104**	**98.5**	**83.1**
Toluene-D8	2037-26-5	0.1	%	**97.8**	**97.7**	**98.4**	**96.6**	**90.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**101**	**103**	**105**	**110**
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**100**	**104**	**104**	**98.5**	**83.1**
Toluene-D8	2037-26-5	0.1	%	**97.8**	**97.7**	**98.4**	**96.6**	**90.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**101**	**101**	**103**	**105**	**110**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	**85.1**	**80.7**	**85.9**	**78.1**	**90.1**
4-Terphenyl-d14	1718-51-0	0.1	%	**92.7**	**90.0**	**90.5**	**85.4**	**99.1**
EP-066S: PCB Surrogate							Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%	**71.8**	**71.5**	**80.6**	**96.7**	**120**
Dibutylchlorendate	1770-80-5	0.1	%	**82.7**	**73.1**	**67.2**	**115**	**98.8**

Sub-Matrix: SOIL				M-06 3.0-3.45M	Q-06 6-6.45M	Q-06 4.5-4.95M	M-07 6.0-6.45M	DUP C Q-06 4.5-4.95M
			Client sample ID					
			Client sampling date / time	[28-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]
Compound	CAS Number	LOR	Unit	HK1102418-006	HK1102418-007	HK1102418-008	HK1102418-009	HK1102418-010
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.2	11.0	8.3	20.5	9.1
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	----	----	<1	----
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	----	----	<0.2	----
EG020: Copper	7440-50-8	1	mg/kg	15	66	8	24	8
EG020: Lead	7439-92-1	1	mg/kg	53	52	21	221	25
EG020: Nickel	7440-02-0	1	mg/kg	5	----	----	4	----
EG020: Zinc	7440-66-6	1	mg/kg	82	285	50	83	38
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	----	----	<0.2	----
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	17	8	3	9	3
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls								

Sub-Matrix: SOIL				M-06 3.0-3.45M	Q-06 6-6.45M	Q-06 4.5-4.95M	M-07 6.0-6.45M	DUP C Q-06 4.5-4.95M
			Client sample ID					
			Client sampling date / time	[28-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]	[27-JAN-2011]
Compound	CAS Number	LOR	Unit	HK1102418-006	HK1102418-007	HK1102418-008	HK1102418-009	HK1102418-010
EP-066: Polychlorinated Biphenyls - Continued								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	----	----	<0.1	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**82.6**	**84.1**	**83.5**	**82.9**	**88.1**
Toluene-D8	2037-26-5	0.1	%	**90.0**	**91.0**	**90.0**	**90.4**	**91.1**
4-Bromofluorobenzene	460-00-4	0.1	%	**110**	**109**	**110**	**109**	**110**
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**82.6**	**84.1**	**83.5**	**82.9**	**88.1**
Toluene-D8	2037-26-5	0.1	%	**90.0**	**91.0**	**90.0**	**90.4**	**91.1**
4-Bromofluorobenzene	460-00-4	0.1	%	**110**	**109**	**110**	**109**	**110**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	**83.5**	**81.5**	**90.8**	**74.7**	**90.6**
4-Terphenyl-d14	1718-51-0	0.1	%	**101**	**98.5**	**92.0**	**90.4**	**97.5**
EP-066S: PCB Surrogate							Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%	**66.9**	**55.4**	----	**72.9**	----
Dibutylchlorendate	1770-80-5	0.1	%	**54.6**	**57.5**	----	**60.4**	----

Sub-Matrix: SOIL			Client sample ID	M-07	P-01	P-04	P-03	P-04
				4.5-4.95M	6-6.45M	1.5M	1.5M	3.0M
			Client sampling date / time	[27-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit	HK1102418-011	HK1102418-017	HK1102418-018	HK1102418-019	HK1102418-020
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	10.2	20.4	22.4	23.4	6.9
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	22	16	6	17	4
EG020: Lead	7439-92-1	1	mg/kg	67	48	240	2160	28
EG020: Nickel	7440-02-0	1	mg/kg	5	4	5	2	1
EG020: Zinc	7440-66-6	1	mg/kg	97	110	118	82	29
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	15	6	8	5	3
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls								

Sub-Matrix: SOIL				M-07	P-01	P-04	P-03	P-04
			Client sample ID	4.5-4.95M	6-6.45M	1.5M	1.5M	3.0M
			Client sampling date / time	[27-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit	HK1102418-011	HK1102418-017	HK1102418-018	HK1102418-019	HK1102418-020
EP-066: Polychlorinated Biphenyls - Continued								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**87.8**	**87.8**	**87.8**	**89.4**	**88.3**
Toluene-D8	2037-26-5	0.1	%	**92.4**	**92.2**	**93.2**	**92.8**	**93.1**
4-Bromofluorobenzene	460-00-4	0.1	%	**109**	**110**	**109**	**108**	**108**
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**87.8**	**87.8**	**87.8**	**89.4**	**88.3**
Toluene-D8	2037-26-5	0.1	%	**92.4**	**92.2**	**93.2**	**92.8**	**93.1**
4-Bromofluorobenzene	460-00-4	0.1	%	**109**	**110**	**109**	**108**	**108**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%	**90.8**	**74.6**	**86.7**	**83.6**	**94.6**
4-Terphenyl-d14	1718-51-0	0.1	%	**98.0**	**93.9**	**96.9**	**97.3**	**99.7**
EP-066S: PCB Surrogate							Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%	**96.0**	**84.9**	**95.5**	**55.8**	**100**
Dibutylchlorendate	1770-80-5	0.1	%	**54.6**	**58.3**	**57.4**	**76.0**	**90.5**

Sub-Matrix: SOIL				Client sample ID	P-07 3.0M	P-02 3.0-3.45M			
				Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]			
Compound	CAS Number	LOR	Unit		HK1102418-021	HK1102418-022			
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		4.6	6.6			
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	1	mg/kg		<1	<1			
EG: Metals and Major Cations									
EG020: Cadmium	7440-43-9	0.2	mg/kg		<0.2	<0.2			
EG020: Copper	7440-50-8	1	mg/kg		3	5			
EG020: Lead	7439-92-1	1	mg/kg		24	11			
EG020: Nickel	7440-02-0	1	mg/kg		<1	<1			
EG020: Zinc	7440-66-6	1	mg/kg		39	18			
EG036: Mercury	7439-97-6	0.2	mg/kg		<0.2	<0.2			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		2	3			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5			
C9 - C16 Fraction	----	200	mg/kg		<200	<200			
C17 - C35 Fraction	----	500	mg/kg		<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50			
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0			
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2			
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50			
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50			
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50			
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50			
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50			
EP-066: Polychlorinated Biphenyls									

Sub-Matrix: SOIL			Client sample ID	P-07 3.0M	P-02 3.0-3.45M			
			Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]			
Compound	CAS Number	LOR	Unit	HK1102418-021	HK1102418-022			
EP-066: Polychlorinated Biphenyls - Continued								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	<0.1			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500			
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500			
Acenaphthene	83-32-9	0.500	mg/kg	<0.500	<0.500			
Fluorene	86-73-7	0.500	mg/kg	<0.500	<0.500			
Phenanthrene	85-01-8	0.500	mg/kg	<0.500	<0.500			
Anthracene	120-12-7	0.500	mg/kg	<0.500	<0.500			
Fluoranthene	206-44-0	0.500	mg/kg	<0.500	<0.500			
Pyrene	129-00-0	0.500	mg/kg	<0.500	<0.500			
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500	<0.500			
Chrysene	218-01-9	0.500	mg/kg	<0.500	<0.500			
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500	<0.500			
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500	<0.500			
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500	<0.500			
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500	<0.500			
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500	<0.500			
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50	<0.50			
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200	<0.200			
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**88.1**	**83.5**			
Toluene-D8	2037-26-5	0.1	%	**91.8**	**92.3**			
4-Bromofluorobenzene	460-00-4	0.1	%	**108**	**104**			
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**88.1**	**83.5**			
Toluene-D8	2037-26-5	0.1	%	**91.8**	**92.3**			
4-Bromofluorobenzene	460-00-4	0.1	%	**108**	**104**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**99.6**	**87.6**			
4-Terphenyl-d14	1718-51-0	0.1	%	**111**	**96.2**			
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%	**108**	**96.6**			
Dibutylchlorendate	1770-80-5	0.1	%	**81.8**	**70.4**			

Sub-Matrix: WATER				Client sample ID	FIELD C	FIELD D	N3-01	N4-01	R-03
				Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102418-012	HK1102418-013	HK1102418-014	HK1102418-015	HK1102418-016
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	<20	----	----	----
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	<20	----	----	----
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	<1	----	----	----
EG020: Lead	7439-92-1	1	µg/L		<1	<1	----	----	----
EG020: Zinc	7440-66-6	10	µg/L		<10	<10	----	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L		<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L		<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5	<5	<5
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	<2	----	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L		<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L		<2	<2	<2	<2	<2

Sub-Matrix: **WATER**

Compound	*CAS Number*	*LOR*	*Unit*	*Client sample ID* / *Client sampling date / time*	FIELD C [27-JAN-2011]	FIELD D [27-JAN-2011]	N3-01 [28-JAN-2011]	N4-01 [28-JAN-2011]	R-03 [28-JAN-2011]
					HK1102418-012	HK1102418-013	HK1102418-014	HK1102418-015	HK1102418-016
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L		<2	<2	<2	<2	<2
Benz(a)anthracene	56-55-3	2	µg/L		<2	<2	----	----	----
Chrysene	218-01-9	2	µg/L		<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	<4	<4
Benzo(a)pyrene	50-32-8	2	µg/L		<2	<2	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	<2	----	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	<2	----	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	<2	----	----	----
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	<20	----	----	----
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	<4	<4
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.1**	**97.0**	**96.7**	**100**	**98.8**
Toluene-D8	2037-26-5	0.1	%		**96.5**	**95.8**	**98.0**	**101**	**97.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**89.6**	**90.8**	**93.1**	**90.3**	**86.7**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.1**	**97.0**	**96.7**	**100**	**98.8**
Toluene-D8	2037-26-5	0.1	%		**96.5**	**95.8**	**98.0**	**101**	**97.0**
4-Bromofluorobenzene	460-00-4	0.1	%		**89.6**	**90.8**	**93.1**	**90.3**	**86.7**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**36.4**	**41.6**	**45.5**	**43.3**	**43.9**
Phenol-d6	13127-88-3	0.1	%		**25.2**	**30.1**	**32.1**	**30.2**	**30.6**
2.4.6-Tribromophenol	118-79-6	0.1	%		**82.4**	**91.8**	**106**	**84.4**	**93.8**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**63.2**	**70.2**	**77.0**	**73.9**	**72.1**
2-Fluorobiphenyl	321-60-8	0.1	%		**62.8**	**70.3**	**78.6**	**75.0**	**71.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**96.8**	**91.4**	**95.3**	**92.0**	**90.9**

Sub-Matrix: WATER			Client sample ID	EQ BK C	EQ BK B	TP BK		
			Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[28-JAN-2011]		
Compound	CAS Number	LOR	Unit	HK1102418-023	HK1102418-024	HK1102418-025		
EG: Metals and Major Cations								
EG049: Trivalent Chromium	16065-83-1	20	µg/L	<20	<20	----		
EG050: Hexavalent Chromium	18540-29-9	20	µg/L	<20	<20	----		
EG: Metals and Major Cations - Filtered								
EG020: Copper	7440-50-8	1	µg/L	<1	<1	----		
EG020: Lead	7439-92-1	1	µg/L	<1	<1	----		
EG020: Zinc	7440-66-6	10	µg/L	**12**	<10	----		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20	----		
C9 - C16 Fraction	----	500	µg/L	<500	<500	----		
C17 - C35 Fraction	----	500	µg/L	<500	<500	----		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5		
Toluene	108-88-3	5	µg/L	<5	<5	<5		
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5		
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10		
Styrene	100-42-5	5	µg/L	<5	<5	<5		
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50	<50	<50		
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50		
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5		
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5		
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5		
EP-075A: Phenols								
Phenol	108-95-2	2	µg/L	<2	<2	----		
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	----		
Acenaphthylene	208-96-8	2	µg/L	<2	<2	----		
Acenaphthene	83-32-9	2	µg/L	<2	<2	----		
Fluorene	86-73-7	2	µg/L	<2	<2	----		
Phenanthrene	85-01-8	2	µg/L	<2	<2	----		
Anthracene	120-12-7	2	µg/L	<2	<2	----		

Sub-Matrix: WATER			Client sample ID	EQ BK C	EQ BK B	TP BK		
			Client sampling date / time	[27-JAN-2011]	[27-JAN-2011]	[28-JAN-2011]		
Compound	CAS Number	LOR	Unit	HK1102418-023	HK1102418-024	HK1102418-025		
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued								
Fluoranthene	206-44-0	2	µg/L	<2	<2	----		
Pyrene	129-00-0	2	µg/L	<2	<2	----		
Benz(a)anthracene	56-55-3	2	µg/L	<2	<2	----		
Chrysene	218-01-9	2	µg/L	<2	<2	----		
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	----		
Benzo(a)pyrene	50-32-8	2	µg/L	<2	<2	----		
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	<2	----		
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	<2	----		
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	<2	----		
EP-075C: Phthalate Esters								
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	<20	----		
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	----		
EP-080S: TPH(Volatile)/BTEX Surrogate							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**99.4**	**95.1**	----		
Toluene-D8	2037-26-5	0.1	%	**97.9**	**99.1**	----		
4-Bromofluorobenzene	460-00-4	0.1	%	**90.9**	**95.7**	----		
EP-074S: VOC Surrogates							Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**99.4**	**95.1**	**99.1**		
Toluene-D8	2037-26-5	0.1	%	**97.9**	**99.1**	**103**		
4-Bromofluorobenzene	460-00-4	0.1	%	**90.9**	**95.7**	**92.4**		
EP-075S: Acid Extractable Surrogates							Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%	**31.8**	**38.5**	----		
Phenol-d6	13127-88-3	0.1	%	**23.4**	**27.0**	----		
2.4.6-Tribromophenol	118-79-6	0.1	%	**78.2**	**84.0**	----		
EP-075T: Base/Neutral Extractable Surrogates							Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%	**57.0**	**59.4**	----		
2-Fluorobiphenyl	321-60-8	0.1	%	**55.2**	**60.5**	----		
4-Terphenyl-d14	1718-51-0	0.1	%	**92.9**	**93.1**	----		

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1650907)								
HK1102359-007	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	36.1	35.2	2.4
HK1102360-007	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	42.8	43.6	1.8
EA/ED: Physical and Aggregate Properties (QC Lot: 1650908)								
HK1102418-006	M-06 3.0-3.45M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.2	13.0	8.8
HK1102418-021	P-07 3.0M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	4.6	4.6	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)								
HK1102045-002	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)								
HK1102418-021	P-07 3.0M	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650813)								
HK1102349-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	20	20	0.0
		EG020: Lead	7439-92-1	1	mg/kg	98	105	7.1
		EG020: Nickel	7440-02-0	1	mg/kg	2	2	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	171	162	5.6
HK1102418-003	M-06 4.5-4.95M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	14	15	9.6
		EG020: Lead	7439-92-1	1	mg/kg	55	61	11.1
		EG020: Nickel	7440-02-0	1	mg/kg	5	5	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	91	93	2.2
EG: Metals and Major Cations (QC Lot: 1650814)								
HK1102418-019	P-03 1.5M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	17	17	0.0
		EG020: Lead	7439-92-1	1	mg/kg	2160	1870	14.3
		EG020: Nickel	7440-02-0	1	mg/kg	2	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	82	96	16.3
EG: Metals and Major Cations (QC Lot: 1650819)								
HK1102312-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102349-005	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650820)								
HK1102418-008	Q-06 4.5-4.95M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102418-022	P-02 3.0-3.45M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650822)								
HK1102418-003	M-06 4.5-4.95M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1102418-019	P-03 1.5M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)								
HK1102213-008	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)								

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579) - Continued								
HK1102213-008	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)								
HK1102418-003	M-06 4.5-4.95M	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)								
HK1102418-003	M-06 4.5-4.95M	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457)								
HK1102349-005	Anonymous	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)								
HK1102418-003	M-06 4.5-4.95M	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1649457)								
HK1102349-005	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1650202)								
HK1102418-003	M-06 4.5-4.95M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1649457)								
HK1102349-005	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)								
HK1102418-003	M-06 4.5-4.95M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1649457)								
HK1102349-005	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)								
HK1102418-003	M-06 4.5-4.95M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1649457)								
HK1102349-005	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)								
HK1102418-003	M-06 4.5-4.95M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)								
HK1102312-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1650206)								
HK1102418-003	M-06 4.5-4.95M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1650206) - Continued								
HK1102418-003	M-06 4.5-4.95M	**Dibenz(a.h)anthracene**	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1650206)								
HK1102418-003	M-06 4.5-4.95M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1654286)								
HK1102418-013	FIELD D	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)								
HK1102418-013	FIELD D	**EG020: Copper**	7440-50-8	1	µg/L	<1	<1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)								
HK1102151-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1647204)								
HK1102151-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204)								

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204) - Continued								
HK1102151-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	95.5	----	85	115	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	92.8	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650813)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.1	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	102	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	103	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650814)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.5	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	99.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	108	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.3	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650819)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	112	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650820)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	114	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650822)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	85.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	110	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	97.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	96.9	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	117	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	91.9	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.5	----	56	116	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1649457) - Continued											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	92.6	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	96.9	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	102	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	94.3	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	100	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.4	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1649457)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	102	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1650202)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	90.1	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1649457)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	102	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1649457)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	94.5	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1649457)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202) - Continued											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	96.3	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	65.7	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	52.9	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	67.9	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	73.1	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	71.0	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	64.1	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	76.0	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	73.9	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	75.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	79.2	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	79.4	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	73.1	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	75.9	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	90.2	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	72.2	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	74.4	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1650206)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	82.0	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	76.4	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	85.8	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	90.8	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	87.5	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	86.5	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	97.4	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	94.0	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	97.9	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	100	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	100	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	97.2	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	77.2	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	95.7	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	87.6	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	86.8	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	68.5	----	24	116	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581) - Continued											
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	78.9	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	109	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1650206)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	90.6	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	96.0	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	105	----	68	128	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1654286)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	100	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	94.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	93.8	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	97.4	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646220)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	91.7	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	95.7	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	116	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	95.2	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	96.4	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	92.2	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	97.1	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	86.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1647204)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	106	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.0	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----
EP-075A: Phenols (QC Lot: 1650212)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	50.8	----	10	100	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1650212)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	97.7	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	102	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	102	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	94.2	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	101	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	97.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	101	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	105	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	96.1	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	109	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	104	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	89.6	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	104	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	# 99.8	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	99.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1650212)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	88.3	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1650212)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	109	----	52	110	----	----

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

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651680)										
HK1102045-001	Anonymous	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.3	----	75	125	----	----
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)										
HK1102418-020	P-04 3.0M	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.0	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650813)										
HK1102349-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	92.3	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	93.2	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650814)										
HK1102418-018	P-04 1.5M	**EG020: Cadmium**	7440-43-9	5 mg/kg	91.8	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	94.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	90.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650819)										
HK1102312-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	117	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650820)										
HK1102418-007	Q-06 6-6.45M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	115	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650822)										
HK1102418-018	P-04 1.5M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	75.0	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647576)										
HK1102213-009	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	99.5	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)										
HK1102213-009	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	78.9	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	70.2	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)										
HK1102418-004	P-03 0.5M	**C6 - C8 Fraction**	----	3 mg/kg	69.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)										
HK1102418-004	P-03 0.5M	**C9 - C16 Fraction**	----	31 mg/kg	--	----	50	130	----	----

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205) - Continued										
HK1102418-004	P-03 0.5M	**C17 - C35 Fraction**	----	75 mg/kg	--	----	50	130	----	----

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1654286)										
HK1102418-012	FIELD C	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	96.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)										
HK1102418-012	FIELD C	**EG020: Copper**	7440-50-8	100 µg/L	95.0	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	88.6	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	96.1	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: SOIL

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%)* *Low*	*High*
EP-074S: VOC Surrogates - Continued			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AC

HK1102420

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 9**
Contact	: **MS ESTHER LEE**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1102420**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **esther.lee@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **28-JAN-2011**
Order number	: **----**			Issue Date	: **11-FEB-2011**
C-O-C number	: **H020142**			No. of samples received	: **1**
Site	: **XRL 823A MNOPQR**			No. of samples analysed	: **1**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 31-JAN-2011

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: **HK1102420**

Sample(s) were picked up from client by ALS Technichem (HK) staff in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: P-03 3.0M				
				Client sampling date / time: [28-JAN-2011]				
				HK1102420-001				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**21.6**				
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1				
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2				
EG020: Copper	7440-50-8	1	mg/kg	**4**				
EG020: Lead	7439-92-1	1	mg/kg	**138**				
EG020: Nickel	7440-02-0	1	mg/kg	**3**				
EG020: Zinc	7440-66-6	1	mg/kg	**51**				
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	**1070**				
C17 - C35 Fraction	----	500	mg/kg	**1490**				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2				
Trichloroethene	79-01-6	0.50	mg/kg	<0.50				
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50				
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50				

Sub-Matrix: SOIL				Client sample ID	P-03 3.0M				
				Client sampling date / time	[28-JAN-2011]				
Compound	CAS Number	LOR	Unit		HK1102420-001				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50				
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500				
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500				
Acenaphthene	83-32-9	0.500	mg/kg		<0.500				
Fluorene	86-73-7	0.500	mg/kg		**0.579**				
Phenanthrene	85-01-8	0.500	mg/kg		<0.500				
Anthracene	120-12-7	0.500	mg/kg		<0.500				
Fluoranthene	206-44-0	0.500	mg/kg		<0.500				
Pyrene	129-00-0	0.500	mg/kg		<0.500				
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500				
Chrysene	218-01-9	0.500	mg/kg		<0.500				
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500				
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500				
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500				
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500				
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500				
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50				
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200				
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		**6.86**				
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.1**				
Toluene-D8	2037-26-5	0.1	%		**92.4**				
4-Bromofluorobenzene	460-00-4	0.1	%		**108**				
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.1**				
Toluene-D8	2037-26-5	0.1	%		**92.4**				
4-Bromofluorobenzene	460-00-4	0.1	%		**108**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**70.6**				
4-Terphenyl-d14	1718-51-0	0.1	%		**88.0**				
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**96.4**				
Dibutylchlorendate	1770-80-5	0.1	%		**91.6**				

Sub-Matrix: **SOIL**	*Client sample ID*	**P-03 3.0M**				
	Client sampling date / time	[28-JAN-2011]				
Compound *CAS Number* *LOR* *Unit*		**HK1102420-001**				
EP-066S: PCB Surrogate - Continued						Surrogate control limits listed at end of this report.

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1650908)								
HK1102418-006	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	14.2	13.0	8.8
HK1102418-021	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	4.6	4.6	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)								
HK1102418-021	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650814)								
HK1102418-019	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	17	17	0.0
		EG020: Lead	7439-92-1	1	mg/kg	2160	1870	14.3
		EG020: Nickel	7440-02-0	1	mg/kg	2	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	82	96	16.3
EG: Metals and Major Cations (QC Lot: 1650820)								
HK1102418-008	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102418-022	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1650822)								
HK1102418-003	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1102418-019	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)								
HK1102213-008	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)								
HK1102418-003	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)								
HK1102418-003	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1650202)								
HK1102418-003	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)								
HK1102418-003	Anonymous	Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)								
HK1102418-003	Anonymous	Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202) - Continued								
HK1102418-003	Anonymous	**Bromodichloromethane**	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)								
HK1102312-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)								
HK1102199-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	1.953 mg/kg	92.8	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650814)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.5	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	99.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	108	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.3	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650820)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1650820) - Continued											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	114	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1650822)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	85.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	97.7	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	96.9	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	117	----	74	138	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.4	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1650202)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	90.1	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	96.3	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	65.7	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	52.9	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	67.9	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	73.1	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	71.0	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	64.1	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	76.0	----	59	122	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1647581) - Continued											
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	73.9	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	75.2	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	79.2	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	79.4	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	73.1	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	75.9	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	90.2	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	72.2	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	74.4	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1647581)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	68.5	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	78.9	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	109	----	68	128	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1651681)										
HK1102418-020	Anonymous	**EK025MD: Free Cyanide**	----	1.953 mg/kg	90.0	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650814)										
HK1102418-018	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	91.8	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	94.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	90.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650820)										
HK1102418-007	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	115	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1650822)										
HK1102418-018	Anonymous	**EG036: Mercury**	7439-97-6	0.1 mg/kg	75.0	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647579)										
HK1102213-009	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	78.9	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	70.2	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)										
HK1102418-004	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	69.9	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. AD

HK1102480

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 25
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102480
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 29-JAN-2011
Order number	: ----			Issue Date	: 15-FEB-2011
C-O-C number	: H020143,H020146			No. of samples received	: 22
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 22

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 10-FEB-2011

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: **HK1102480**

Sample(s) were received in a chilled condition.

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

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: P-02 6-6.45M	P-02 4.5-4.95M	M-05 3.0-3.45M	M-05 3.0-3.45M DUP D	M-05 4.5-4.95M
				Client sampling date / time: [28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
				HK1102480-001	HK1102480-002	HK1102480-003	HK1102480-004	HK1102480-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	11.0	16.0	15.3	13.2	16.3
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	26	89	17	17	12
EG020: Lead	7439-92-1	1	mg/kg	60	94	48	44	41
EG020: Nickel	7440-02-0	1	mg/kg	3	3	5	4	3
EG020: Zinc	7440-66-6	1	mg/kg	128	176	94	84	89
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	4	14	19	18	13
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	P-02 6-6.45M	P-02 4.5-4.95M	M-05 3.0-3.45M	M-05 3.0-3.45M DUP D	M-05 4.5-4.95M
				Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-001	HK1102480-002	HK1102480-003	HK1102480-004	HK1102480-005
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**105**	**100**	**100**	**94.4**	**101**
Toluene-D8	2037-26-5	0.1	%		**96.5**	**94.6**	**94.4**	**95.9**	**91.7**
4-Bromofluorobenzene	460-00-4	0.1	%		**96.1**	**87.4**	**90.8**	**94.4**	**93.9**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**105**	**100**	**100**	**94.4**	**101**
Toluene-D8	2037-26-5	0.1	%		**96.5**	**94.6**	**94.4**	**95.9**	**91.7**
4-Bromofluorobenzene	460-00-4	0.1	%		**96.1**	**87.4**	**90.8**	**94.4**	**93.9**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**98.4**	**83.5**	**83.6**	**94.9**	**89.7**
4-Terphenyl-d14	1718-51-0	0.1	%		**111**	**102**	**98.9**	**102**	**101**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**78.2**	**66.8**	**69.6**	**70.6**	**73.5**

Sub-Matrix: **SOIL**			*Client sample ID*	**P-02 6-6.45M**	**P-02 4.5-4.95M**	**M-05 3.0-3.45M**	**M-05 3.0-3.45M DUP D**	**M-05 4.5-4.95M**
			Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]	[28-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102480-001**	**HK1102480-002**	**HK1102480-003**	**HK1102480-004**	**HK1102480-005**
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	**122**	**106**	**106**	**72.7**	**76.9**

Sub-Matrix: SOIL			Client sample ID	M-05 6.0-6.45M				
			Client sampling date / time	[28-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1102480-006				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**21.6**				
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1				
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2				
EG020: Copper	7440-50-8	1	mg/kg	**31**				
EG020: Lead	7439-92-1	1	mg/kg	**74**				
EG020: Nickel	7440-02-0	1	mg/kg	**2**				
EG020: Zinc	7440-66-6	1	mg/kg	**68**				
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2				
Trichloroethene	79-01-6	0.50	mg/kg	<0.50				
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50				
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50				

Sub-Matrix: SOIL				Client sample ID	M-05 6.0-6.45M				
				Client sampling date / time	[28-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1102480-006					
EP-074L: Methyl-tert-butyl Ether - Continued									
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1					
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg	<0.500					
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500					
Acenaphthene	83-32-9	0.500	mg/kg	<0.500					
Fluorene	86-73-7	0.500	mg/kg	<0.500					
Phenanthrene	85-01-8	0.500	mg/kg	<0.500					
Anthracene	120-12-7	0.500	mg/kg	<0.500					
Fluoranthene	206-44-0	0.500	mg/kg	<0.500					
Pyrene	129-00-0	0.500	mg/kg	<0.500					
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500					
Chrysene	218-01-9	0.500	mg/kg	<0.500					
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500					
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500					
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500					
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500					
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500					
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500					
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg	<0.50					
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200					
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00					
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**90.5**					
Toluene-D8	2037-26-5	0.1	%	**93.1**					
4-Bromofluorobenzene	460-00-4	0.1	%	**94.0**					
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**90.5**					
Toluene-D8	2037-26-5	0.1	%	**93.1**					
4-Bromofluorobenzene	460-00-4	0.1	%	**94.0**					
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**92.9**					
4-Terphenyl-d14	1718-51-0	0.1	%	**103**					
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%	**82.8**					
Dibutylchlorendate	1770-80-5	0.1	%	**95.8**					

Sub-Matrix: WATER				Client sample ID	EQ BLANK D	EQ BLANK E	EQ BLANK F	EQ BLANK G	FIELD BLANK E
				Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-007	HK1102480-008	HK1102480-009	HK1102480-010	HK1102480-011
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	<20	<20	<20	<20
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	<20	<20	<20	<20
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	<1	<1	<1	<1
EG020: Lead	7439-92-1	1	µg/L		<1	<1	<1	<1	<1
EG020: Zinc	7440-66-6	10	µg/L		<10	<10	<10	<10	<10
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L		<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L		<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5	<5	<5
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	<2	<2	<2	<2
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L		<2	<2	<2	<2	<2

Sub-Matrix: WATER				Client sample ID	EQ BLANK D	EQ BLANK E	EQ BLANK F	EQ BLANK G	FIELD BLANK E
				Client sampling date / time	[28-JAN-2011]	[28-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[28-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-007	HK1102480-008	HK1102480-009	HK1102480-010	HK1102480-011
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L		<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L		<2	<2	<2	<2	<2
Benz(a)anthracene	56-55-3	2	µg/L		<2	<2	<2	<2	<2
Chrysene	218-01-9	2	µg/L		<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	<4	<4
Benzo(a)pyrene	50-32-8	2	µg/L		<2	<2	<2	<2	<2
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	<2	<2	<2	<2
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	<2	<2	<2	<2
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	<2	<2	<2	<2
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	<20	<20	<20	<20
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	<4	<4
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**103**	**98.1**	**102**	**98.8**	**104**
Toluene-D8	2037-26-5	0.1	%		**97.8**	**103**	**103**	**102**	**99.3**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.4**	**92.7**	**91.2**	**98.9**	**90.1**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**103**	**98.1**	**102**	**98.8**	**104**
Toluene-D8	2037-26-5	0.1	%		**97.8**	**103**	**103**	**102**	**99.3**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.4**	**92.7**	**91.2**	**98.9**	**90.1**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**39.4**	**37.9**	**49.3**	**51.5**	**54.6**
Phenol-d6	13127-88-3	0.1	%		**29.0**	**25.3**	**36.4**	**38.6**	**39.8**
2.4.6-Tribromophenol	118-79-6	0.1	%		**69.0**	**65.8**	**76.0**	**76.6**	**81.1**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**64.9**	**59.9**	**71.6**	**73.6**	**79.2**
2-Fluorobiphenyl	321-60-8	0.1	%		**61.8**	**56.4**	**66.0**	**65.9**	**71.6**
4-Terphenyl-d14	1718-51-0	0.1	%		**82.5**	**91.1**	**92.7**	**90.5**	**96.2**

Sub-Matrix: WATER				Client sample ID	FIELD BLANK F	R-02	R-02 DUP E	R-04	N1-02
				Client sampling date / time	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-012	HK1102480-013	HK1102480-014	HK1102480-015	HK1102480-016
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	----	----	----	----
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	----	----	----	----
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	----	----	----	----
EG020: Lead	7439-92-1	1	µg/L		<1	----	----	----	----
EG020: Zinc	7440-66-6	10	µg/L		<10	----	----	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L		<500	**600**	**700**	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L		<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L		<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5	<5	<5
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	----	----	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	<2	<2

Sub-Matrix: WATER				Client sample ID	FIELD BLANK F	R-02	R-02 DUP E	R-04	N1-02
				Client sampling date / time	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-012	HK1102480-013	HK1102480-014	HK1102480-015	HK1102480-016
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Fluorene	86-73-7	2	µg/L		<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L		<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L		<2	<2	<2	<2	<2
Benz(a)anthracene	56-55-3	2	µg/L		<2	----	----	----	----
Chrysene	218-01-9	2	µg/L		<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	<4	<4
Benzo(a)pyrene	50-32-8	2	µg/L		<2	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	----	----	----	----
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	----	----	----	----
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	<4	<4
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**101**	**100**	**104**	**98.3**
Toluene-D8	2037-26-5	0.1	%		**98.3**	**99.5**	**97.4**	**99.7**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**94.6**	**92.1**	**89.6**	**93.5**	**96.7**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**101**	**100**	**104**	**98.3**
Toluene-D8	2037-26-5	0.1	%		**98.3**	**99.5**	**97.4**	**99.7**	**101**
4-Bromofluorobenzene	460-00-4	0.1	%		**94.6**	**92.1**	**89.6**	**93.5**	**96.7**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**44.3**	**58.2**	**60.5**	**53.1**	**64.0**
Phenol-d6	13127-88-3	0.1	%		**36.2**	**42.8**	**43.7**	**43.0**	**45.2**
2.4.6-Tribromophenol	118-79-6	0.1	%		**70.9**	**90.1**	**94.4**	**80.5**	**93.0**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**63.5**	**79.9**	**83.6**	**65.2**	**88.5**
2-Fluorobiphenyl	321-60-8	0.1	%		**60.5**	**75.6**	**78.0**	**59.9**	**82.3**
4-Terphenyl-d14	1718-51-0	0.1	%		**92.4**	**89.9**	**94.4**	**89.8**	**94.0**

Sub-Matrix: WATER				Client sample ID	N1-01	O-01	O-02	N3-06	N3-04
				Client sampling date / time	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102480-017	HK1102480-018	HK1102480-019	HK1102480-020	HK1102480-021
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L		<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L		<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5	<5	<5
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L		<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L		<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L		<2	<2	<2	<2	<2
Chrysene	218-01-9	2	µg/L		<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	<4	<4
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	<4	<4

Sub-Matrix: **WATER**				*Client sample ID*	**N1-01**	**O-01**	**O-02**	**N3-06**	**N3-04**
				Client sampling date / time	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102480-017**	**HK1102480-018**	**HK1102480-019**	**HK1102480-020**	**HK1102480-021**
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**98.7**	**100**	**97.4**	**91.0**
Toluene-D8	2037-26-5	0.1	%		**103**	**100**	**103**	**98.2**	**97.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**91.0**	**90.2**	**94.3**	**91.0**	**93.0**
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**98.7**	**100**	**97.4**	**91.0**
Toluene-D8	2037-26-5	0.1	%		**103**	**100**	**103**	**98.2**	**97.8**
4-Bromofluorobenzene	460-00-4	0.1	%		**91.0**	**90.2**	**94.3**	**91.0**	**93.0**
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**48.4**	**46.9**	**35.5**	**47.5**	**36.4**
Phenol-d6	13127-88-3	0.1	%		**35.2**	**33.7**	**24.6**	**33.5**	**25.3**
2.4.6-Tribromophenol	118-79-6	0.1	%		**98.0**	**89.0**	**88.9**	**82.0**	**73.8**
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**66.6**	**68.9**	**54.1**	**69.9**	**54.2**
2-Fluorobiphenyl	321-60-8	0.1	%		**63.4**	**65.0**	**51.1**	**66.8**	**50.9**
4-Terphenyl-d14	1718-51-0	0.1	%		**102**	**92.6**	**94.6**	**86.2**	**84.0**

Sub-Matrix: WATER				Client sample ID	TRIP BLANK				
				Client sampling date / time	[29-JAN-2011]				
Compound	CAS Number	LOR	Unit	HK1102480-022					
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L	<5					
Toluene	108-88-3	5	µg/L	<5					
Ethylbenzene	100-41-4	5	µg/L	<5					
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10					
Styrene	100-42-5	5	µg/L	<5					
ortho-Xylene	95-47-6	5	µg/L	<5					
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L	<50					
2-Butanone (MEK)	78-93-3	50	µg/L	<50					
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L	<50					
Trichloroethene	79-01-6	5	µg/L	<5					
Tetrachloroethene	127-18-4	5	µg/L	<5					
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L	<5					
Bromodichloromethane	75-27-4	5	µg/L	<5					
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5					
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%	**101**					
Toluene-D8	2037-26-5	0.1	%	**100**					
4-Bromofluorobenzene	460-00-4	0.1	%	**93.5**					

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1652527)								
HK1102461-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	29.1	29.0	0.0
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)								
HK1102480-002	P-02 4.5-4.95M	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1659071)								
HK1102480-002	P-02 4.5-4.95M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102543-011	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1659086)								
HK1102480-002	P-02 4.5-4.95M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1102543-009	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1661443)								
HK1102463-001	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	18	16	9.1
		EG020: Lead	7439-92-1	1	mg/kg	33	31	6.7
		EG020: Nickel	7440-02-0	1	mg/kg	26	23	14.4
		EG020: Zinc	7440-66-6	1	mg/kg	104	94	10.0
HK1102543-009	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	38	43	10.7
		EG020: Lead	7439-92-1	1	mg/kg	65	57	12.8
		EG020: Nickel	7440-02-0	1	mg/kg	3	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	169	182	7.8
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)								
HK1102418-003	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)								
HK1102418-003	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)								
HK1102480-005	M-05 4.5-4.95M	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)								
HK1102480-005	M-05 4.5-4.95M	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)								
HK1102418-003	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1650202)								
HK1102418-003	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)								
HK1102312-001	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1651730)								
HK1102480-005	M-05 4.5-4.95M	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1650208)								
HK1102359-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1651732)								
HK1102480-005	M-05 4.5-4.95M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1651732) - Continued								
HK1102480-005	M-05 4.5-4.95M	**Pyrene**	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1650208)								
HK1102359-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1651732)								
HK1102480-005	M-05 4.5-4.95M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1654286)								
HK1102418-013	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)								
HK1102418-013	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	<1	<1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)								
HK1102151-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)								
HK1102480-015	R-04	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)								

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724) - Continued								
HK1102480-015	R-04	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1647204)								
HK1102151-001	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1652724)								
HK1102480-015	R-04	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)								
HK1102480-015	R-04	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)								
HK1102480-015	R-04	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1647204)								
HK1102151-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1652724)								
HK1102480-015	R-04	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	2 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1659071)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1659071) - Continued											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	114	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1659086)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	85.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1661443)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	100	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.2	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	117	----	74	138	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	91.9	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.5	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	87.4	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.6	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	111	----	74	138	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.4	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1650202)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	90.1	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202) - Continued											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1650204)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	96.3	----	35	141	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1651730)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	62.6	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1650208)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	76.3	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	65.1	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	77.0	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	80.4	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	78.8	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	74.0	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	89.1	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	86.3	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	92.6	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	98.9	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	96.8	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	92.7	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	72.2	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	98.4	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	84.3	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	84.7	----	57	123	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1651732)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	87.1	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	77.5	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	84.7	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	86.4	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	80.7	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	87.1	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	92.3	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	89.7	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	92.0	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	99.0	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	97.4	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	97.0	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	80.4	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	93.8	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	99.5	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	95.8	----	57	123	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1650208)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	60.0	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	86.8	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	104	----	68	128	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1651732)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	88.3	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	94.1	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	112	----	68	128	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1654286)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	100	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	94.8	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	93.8	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	97.4	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1646220)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	91.7	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	95.7	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1647205)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	116	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651717)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	80.8	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	78.4	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	124	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1647204)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	95.2	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	96.4	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	92.2	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	97.1	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	86.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.5	----	77	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	89.3	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	87.1	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	78.9	----	68	114	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724) - Continued											
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	82.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	99.6	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.2	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1647204)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	106	----	52	130	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1652724)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1647204)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	95.7	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	98.0	----	62	117	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	90.6	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	85.4	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1647204)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	102	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	101	----	67	116	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	90.1	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	88.6	----	67	116	----	----
EP-075A: Phenols (QC Lot: 1650212)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	50.8	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1650212)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	97.7	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	102	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	102	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	94.2	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	101	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	97.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	101	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	105	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	96.1	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	109	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	104	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	89.6	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	104	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	# 99.8	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	99.2	----	42	102	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1651718)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	76.5	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	72.0	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	76.0	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	79.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.2	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	83.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	87.1	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	88.1	----	65	105	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	86.4	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	89.1	----	53	104	----	----
EP-075C: Phthalate Esters (QC Lot: 1650212)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	88.3	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1650212)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	109	----	52	110	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1651718)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	82.0	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)										
HK1102480-001	P-02 6-6.45M	**EK025MD: Free Cyanide**	----	20 mg/kg	77.8	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1659071)										
HK1102480-001	P-02 6-6.45M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	107	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1659086)										
HK1102480-001	P-02 6-6.45M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	87.5	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1661443)										
HK1102461-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	99.4	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	84.9	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650201)										
HK1102418-004	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	69.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1650205)										
HK1102418-004	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	--	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	--	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)										
HK1102480-006	M-05 6.0-6.45M	**C9 - C16 Fraction**	----	31 mg/kg	75.7	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	80.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)										
HK1102480-006	M-05 6.0-6.45M	**C6 - C8 Fraction**	----	3 mg/kg	106	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report						
				Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
					MS	MSD	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1654286)										
HK1102418-012	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	96.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1652481)										
HK1102418-012	Anonymous	**EG020: Copper**	7440-50-8	100 µg/L	95.0	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	88.6	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	96.1	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate - Continued			
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AE

HK1102543

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 20
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102543
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 31-JAN-2011
Order number	: ----			Issue Date	: 23-FEB-2011
C-O-C number	: H020144-H020145			No. of samples received	: 15
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 15

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 11-FEB-2011

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: **HK1102543**

Sample(s) were received in a chilled condition.

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

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: P-05 0.5M Client sampling date / time: [31-JAN-2011] HK1102543-007	P-05 1.5M [31-JAN-2011] HK1102543-008	P-05 3-3.45M [31-JAN-2011] HK1102543-009	P-05 4.5-4.95M [31-JAN-2011] HK1102543-010	P-05 6-6.45M [31-JAN-2011] HK1102543-011
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	25.2	17.5	10.1	14.6	12.0
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	12	16	38	42	5
EG020: Lead	7439-92-1	1	mg/kg	581	337	65	58	30
EG020: Nickel	7440-02-0	1	mg/kg	2	7	3	3	2
EG020: Zinc	7440-66-6	1	mg/kg	93	167	169	130	39
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	8	11	8	7	3
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	P-05 0.5M	P-05 1.5M	P-05 3-3.45M	P-05 4.5-4.95M	P-05 6-6.45M
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102543-007	HK1102543-008	HK1102543-009	HK1102543-010	HK1102543-011
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.4**	**97.0**	**92.2**	**90.7**	**97.0**
Toluene-D8	2037-26-5	0.1	%		**97.4**	**94.2**	**91.8**	**97.4**	**96.9**
4-Bromofluorobenzene	460-00-4	0.1	%		**90.2**	**89.7**	**90.5**	**95.1**	**97.7**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**90.4**	**97.0**	**92.2**	**90.7**	**97.0**
Toluene-D8	2037-26-5	0.1	%		**97.4**	**94.2**	**91.8**	**97.4**	**96.9**
4-Bromofluorobenzene	460-00-4	0.1	%		**90.2**	**89.7**	**90.5**	**95.1**	**97.7**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**86.8**	**68.1**	**77.4**	**80.9**	**87.4**
4-Terphenyl-d14	1718-51-0	0.1	%		**94.9**	**87.1**	**100**	**94.3**	**103**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**120**	**102**	**111**	**105**	**87.8**

Sub-Matrix: **SOIL**				*Client sample ID*	**P-05 0.5M**	**P-05 1.5M**	**P-05 3-3.45M**	**P-05 4.5-4.95M**	**P-05 6-6.45M**
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102543-007**	**HK1102543-008**	**HK1102543-009**	**HK1102543-010**	**HK1102543-011**
EP-066S: PCB Surrogate - Continued									Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%		**118**	**114**	**83.2**	**110**	**95.7**

Sub-Matrix: SOIL				Client sample ID	P-06 0.5M	P-06 1.5M	P-06 3-3.45M	P-06 4.5-4.95M	
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	
Compound	CAS Number	LOR	Unit		HK1102543-012	HK1102543-013	HK1102543-014	HK1102543-015	
EA/ED: Physical and Aggregate Properties									
EA055: Moisture Content (dried @ 103°C)	----	0.1	%		**22.3**	**15.4**	**9.0**	**7.0**	
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	1	mg/kg		<1	<1	<1	<1	
EG: Metals and Major Cations									
EG020: Cadmium	7440-43-9	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	
EG020: Copper	7440-50-8	1	mg/kg		**5**	**5**	**16**	**60**	
EG020: Lead	7439-92-1	1	mg/kg		**568**	**30**	**20**	**78**	
EG020: Nickel	7440-02-0	1	mg/kg		**6**	**3**	**1**	**3**	
EG020: Zinc	7440-66-6	1	mg/kg		**183**	**40**	**36**	**140**	
EG036: Mercury	7439-97-6	0.2	mg/kg		<0.2	<0.2	<0.2	<0.2	
EG049: Trivalent Chromium	16065-83-1	1	mg/kg		**8**	**5**	**2**	**6**	
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg		<1	<1	<1	<1	
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	5	mg/kg		<5	<5	<5	<5	
C9 - C16 Fraction	----	200	mg/kg		<200	<200	<200	<200	
C17 - C35 Fraction	----	500	mg/kg		<500	<500	<500	<500	
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	
Toluene	108-88-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
Ethylbenzene	100-41-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg		<1.00	<1.00	<1.00	<1.00	
Styrene	100-42-5	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
ortho-Xylene	95-47-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	mg/kg		<50	<50	<50	<50	
2-Butanone (MEK)	78-93-3	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	2	mg/kg		<2	<2	<2	<2	
Trichloroethene	79-01-6	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
Tetrachloroethene	127-18-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
Bromodichloromethane	75-27-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
EP-074L: Methyl-tert-butyl Ether									

Sub-Matrix: SOIL				Client sample ID	P-06 0.5M	P-06 1.5M	P-06 3-3.45M	P-06 4.5-4.95M	
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	
Compound	CAS Number	LOR	Unit		HK1102543-012	HK1102543-013	HK1102543-014	HK1102543-015	
EP-074L: Methyl-tert-butyl Ether - Continued									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.6**	**87.0**	**89.0**	**93.5**	
Toluene-D8	2037-26-5	0.1	%		**94.6**	**91.9**	**94.3**	**95.1**	
4-Bromofluorobenzene	460-00-4	0.1	%		**87.3**	**88.6**	**91.0**	**91.8**	
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**92.6**	**87.0**	**89.0**	**93.5**	
Toluene-D8	2037-26-5	0.1	%		**94.6**	**91.9**	**94.3**	**95.1**	
4-Bromofluorobenzene	460-00-4	0.1	%		**87.3**	**88.6**	**91.0**	**91.8**	
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**76.4**	**85.6**	**91.6**	**82.6**	
4-Terphenyl-d14	1718-51-0	0.1	%		**95.6**	**93.9**	**102**	**96.3**	
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**120**	**85.8**	**99.7**	**81.8**	

Sub-Matrix: **SOIL**			*Client sample ID*	**P-06 0.5M**	**P-06 1.5M**	**P-06 3-3.45M**	**P-06 4.5-4.95M**	
			Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102543-012**	**HK1102543-013**	**HK1102543-014**	**HK1102543-015**	
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	**92.9**	**114**	**95.6**	**102**	

Sub-Matrix: WATER				Client sample ID	N3-02	N3-02 DUP G	N3-05	R-01	FIELD BLANK G
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102543-001	HK1102543-002	HK1102543-003	HK1102543-004	HK1102543-005
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	0.02	mg/L		----	----	----	----	<0.02
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L		----	----	----	----	<0.02
EG: Metals and Major Cations - Filtered									
EG020: Cadmium	7440-43-9	0.2	µg/L		----	----	----	----	<0.2
EG020: Copper	7440-50-8	1	µg/L		----	----	----	----	<1
EG020: Lead	7439-92-1	1	µg/L		----	----	----	----	<1
EG020: Nickel	7440-02-0	1	µg/L		----	----	----	----	<1
EG020: Zinc	7440-66-6	10	µg/L		----	----	----	----	<10
EG036: Mercury	7439-97-6	0.1	µg/L		----	----	----	----	<0.1
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L		<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L		<500	<500	<500	**700**	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L		<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L		<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L		<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L		<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L		<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L		<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L		<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5	<5	<5	<5
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		----	----	----	----	<2
EP-075B: Polyaromatic Hydrocarbons (PAHs)									

Sub-Matrix: WATER				Client sample ID	N3-02	N3-02 DUP G	N3-05	R-01	FIELD BLANK G
				Client sampling date / time	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]	[31-JAN-2011]
Compound	CAS Number	LOR	Unit		HK1102543-001	HK1102543-002	HK1102543-003	HK1102543-004	HK1102543-005
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Naphthalene	91-20-3	2	µg/L		<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L		<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L		<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L		<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L		<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L		<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L		<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L		<2	<2	<2	<2	<2
Benz(a)anthracene	56-55-3	2	µg/L		----	----	----	----	<2
Chrysene	218-01-9	2	µg/L		<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	<4	<4
Benzo(a)pyrene	50-32-8	2	µg/L		----	----	----	----	<2
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		----	----	----	----	<2
Dibenz(a.h)anthracene	53-70-3	2	µg/L		----	----	----	----	<2
Benzo(g.h.i)perylene	191-24-2	2	µg/L		----	----	----	----	<2
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		----	----	----	----	<20
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	<4	<4
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**106**	**112**	**110**	**112**	**110**
Toluene-D8	2037-26-5	0.1	%		**96.9**	**98.6**	**98.6**	**99.0**	**99.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**104**	**105**	**104**	**102**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**106**	**112**	**110**	**112**	**110**
Toluene-D8	2037-26-5	0.1	%		**96.9**	**98.6**	**98.6**	**99.0**	**99.2**
4-Bromofluorobenzene	460-00-4	0.1	%		**105**	**104**	**105**	**104**	**102**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**51.8**	**68.0**	**65.5**	**54.9**	**47.3**
Phenol-d6	13127-88-3	0.1	%		**38.2**	**50.4**	**46.2**	**39.8**	**35.5**
2.4.6-Tribromophenol	118-79-6	0.1	%		**94.0**	**93.5**	**87.9**	**80.6**	**72.5**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**73.3**	**86.6**	**85.0**	**77.2**	**78.4**
2-Fluorobiphenyl	321-60-8	0.1	%		**68.1**	**80.8**	**76.7**	**72.7**	**70.2**
4-Terphenyl-d14	1718-51-0	0.1	%		**102**	**95.1**	**90.4**	**85.3**	**87.4**

Sub-Matrix: WATER				Client sample ID	TRIP BLANK				
				Client sampling date / time	[31-JAN-2011]				
Compound	CAS Number	LOR	Unit		HK1102543-006				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**114**				
Toluene-D8	2037-26-5	0.1	%		**100**				
4-Bromofluorobenzene	460-00-4	0.1	%		**104**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1653104)								
HK1102515-008	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	31.6	33.4	5.6
HK1102543-014	P-06 3-3.45M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	9.0	9.9	9.3
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)								
HK1102480-002	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1659071)								
HK1102480-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102543-011	P-05 6-6.45M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1659086)								
HK1102480-002	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1102543-009	P-05 3-3.45M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1661443)								
HK1102463-001	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	18	16	9.1
		EG020: Lead	7439-92-1	1	mg/kg	33	31	6.7
		EG020: Nickel	7440-02-0	1	mg/kg	26	23	14.4
		EG020: Zinc	7440-66-6	1	mg/kg	104	94	10.0
HK1102543-009	P-05 3-3.45M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	38	43	10.7
		EG020: Lead	7439-92-1	1	mg/kg	65	57	12.8
		EG020: Nickel	7440-02-0	1	mg/kg	3	3	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	169	182	7.8
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)								
HK1102480-005	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)								
HK1102480-005	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)								
HK1102418-003	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1653086)								
HK1102543-013	P-06 1.5M	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1653086) - Continued								
HK1102543-013	P-06 1.5M	**Styrene**	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1650202)								
HK1102418-003	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1653086)								
HK1102543-013	P-06 1.5M	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1653086)								
HK1102543-013	P-06 1.5M	**Trichloroethene**	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1653086)								
HK1102543-013	P-06 1.5M	**Chloroform**	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0
		Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)								
HK1102418-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1653086)								
HK1102543-013	P-06 1.5M	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1651730)								
HK1102480-005	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1653035)								
HK1102515-007	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1653035) - Continued								
HK1102515-007	Anonymous	**Benzo(g.h.i)perylene**	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1653035)								
HK1102515-007	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1666029)								
HK1102735-001	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)								
HK1102480-015	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1652724)								
HK1102480-015	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	2 mg/kg	88.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1659071)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	114	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1659086)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.2	0.1 mg/kg	85.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1661443)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	100	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.2	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	87.4	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.6	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	111	----	74	138	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1650202)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	84.4	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	103	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	112	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	77	131	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1653086)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	90.2	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	89.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	93.0	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	92.3	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	121	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1650202)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	90.1	----	64	123	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1653086)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	87.8	----	64	123	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074E: Halogenated Aliphatics (QC Lot: 1650202)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	110	----	79	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1653086)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	93.3	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	88.3	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1650202)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	101	----	75	121	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1653086)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	93.2	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	87.5	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1650202)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1653086)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1651730)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	62.6	----	35	141	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1653035)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	85.8	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	76.0	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	84.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	87.3	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	81.7	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	82.2	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	91.3	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	88.7	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	91.7	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	98.6	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	94.5	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	97.2	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	78.5	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	102	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	98.7	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	98.1	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1653035)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	87.6	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	94.0	----	45	125	----	----

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1653035) - Continued											
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	112	----	68	128	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1666029)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	99.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1654187)											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.1	0.2 µg/L	98.4	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1654188)											
EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	100 µg/L	98.3	----	85	115	----	----
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	99.3	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	96.0	----	85	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	100 µg/L	107	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	104	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651717)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	80.8	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	78.4	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	124	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	89.3	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	87.1	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	78.9	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	82.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	99.6	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.2	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1652724)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	90.6	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	85.4	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	90.1	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	88.6	----	67	116	----	----
EP-075A: Phenols (QC Lot: 1651718)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	37.5	----	10	100	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1651718)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	76.5	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	72.0	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	76.0	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	79.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.2	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	83.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	87.1	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	88.1	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	86.0	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	86.4	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	89.1	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	75.1	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	86.6	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	87.6	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	90.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1651718)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	73.7	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1651718)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	82.0	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1659695)										
HK1102480-001	Anonymous	**EK025MD: Free Cyanide**	----	20 mg/kg	77.8	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1659071)										
HK1102480-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	107	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1659086)										
HK1102480-001	Anonymous	**EG036: Mercury**	7439-97-6	0.1 mg/kg	87.5	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1661443)										
HK1102461-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	99.4	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	84.9	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1661443) - Continued										
HK1102461-001	Anonymous	**EG020: Zinc**	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)										
HK1102480-006	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	75.7	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	80.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)										
HK1102480-006	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	106	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1666029)										
HK1102543-005	FIELD BLANK G	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	93.1	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1654187)										
HK1102543-005	FIELD BLANK G	**EG036: Mercury**	7439-97-6	0.2 µg/L	94.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1654188)										
HK1102543-005	FIELD BLANK G	**EG020: Cadmium**	7440-43-9	100 µg/L	96.2	----	75	125	----	----
		EG020: Copper	7440-50-8	100 µg/L	100	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	95.9	----	75	125	----	----
		EG020: Nickel	7440-02-0	100 µg/L	108	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	103	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AF

HK1102577

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 11
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102577
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 31-JAN-2011
Order number	: ----			Issue Date	: 18-FEB-2011
C-O-C number	: H024592			No. of samples received	: 5
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 4

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 10-FEB-2011

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: **HK1102577**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: Q-07 3-3.45M	Q-07 DUPLICATE	Q-07 4.5-4.95M		
				Client sampling date / time: [29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]		
				HK1102577-002	HK1102577-003	HK1102577-004		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**23.3**	**24.2**	**8.5**		
EG: Metals and Major Cations								
EG020: Copper	7440-50-8	1	mg/kg	**10**	**11**	**14**		
EG020: Lead	7439-92-1	1	mg/kg	**59**	**64**	**124**		
EG020: Zinc	7440-66-6	1	mg/kg	**106**	**115**	**145**		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**9**	**10**	**5**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20		
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50		
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50		
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00		
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50		
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50		
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2		
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50		
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50		
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500	<0.500	<0.500		
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500	<0.500	<0.500		

Sub-Matrix: SOIL				Client sample ID	Q-07 3-3.45M	Q-07 DUPLICATE	Q-07 4.5-4.95M		
				Client sampling date / time	[29-JAN-2011]	[29-JAN-2011]	[29-JAN-2011]		
Compound	CAS Number	LOR	Unit		HK1102577-002	HK1102577-003	HK1102577-004		
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) - Continued									
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500		
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500		
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500		
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500		
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500		
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500		
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500		
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500		
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500		
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500		
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50		
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200		
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**83.5**	**82.7**	**81.8**		
Toluene-D8	2037-26-5	0.1	%		**89.3**	**89.1**	**90.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**110**	**111**	**110**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**83.5**	**82.7**	**81.8**		
Toluene-D8	2037-26-5	0.1	%		**89.3**	**89.1**	**90.7**		
4-Bromofluorobenzene	460-00-4	0.1	%		**110**	**111**	**110**		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**85.0**	**86.0**	**88.1**		
4-Terphenyl-d14	1718-51-0	0.1	%		**90.8**	**90.8**	**94.6**		

Sub-Matrix: WATER				Client sample ID	TRIP BLANK				
				Client sampling date / time	[29-JAN-2011]				
Compound	CAS Number	LOR	Unit		HK1102577-005				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5				
Toluene	108-88-3	5	µg/L		<5				
Ethylbenzene	100-41-4	5	µg/L		<5				
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10				
Styrene	100-42-5	5	µg/L		<5				
ortho-Xylene	95-47-6	5	µg/L		<5				
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50				
2-Butanone (MEK)	78-93-3	50	µg/L		<50				
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50				
Trichloroethene	79-01-6	5	µg/L		<5				
Tetrachloroethene	127-18-4	5	µg/L		<5				
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5				
Bromodichloromethane	75-27-4	5	µg/L		<5				
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**99.4**				
Toluene-D8	2037-26-5	0.1	%		**100**				
4-Bromofluorobenzene	460-00-4	0.1	%		**86.5**				

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1659019)								
HK1102572-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	1.1	1.0	0.0
HK1102597-006	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	18.1	18.2	0.7
EG: Metals and Major Cations (QC Lot: 1659071)								
HK1102480-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1102543-011	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1661443)								
HK1102463-001	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	18	16	9.1
		EG020: Lead	7439-92-1	1	mg/kg	33	31	6.7
		EG020: Zinc	7440-66-6	1	mg/kg	104	94	10.0
HK1102543-009	Anonymous	EG020: Copper	7440-50-8	1	mg/kg	38	43	10.7
		EG020: Lead	7439-92-1	1	mg/kg	65	57	12.8
		EG020: Zinc	7440-66-6	1	mg/kg	169	182	7.8
EG: Metals and Major Cations (QC Lot: 1661444)								
HK1102577-004	Q-07 4.5-4.95M	EG020: Copper	7440-50-8	1	mg/kg	14	15	0.0
		EG020: Lead	7439-92-1	1	mg/kg	124	121	2.5
		EG020: Zinc	7440-66-6	1	mg/kg	145	142	2.6
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)								
HK1102480-005	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)								
HK1102480-005	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1653086)								
HK1102543-013	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1653086)								
HK1102543-013	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1653086)								
HK1102543-013	Anonymous	Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	0.0
		Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	0.0
		Methylene chloride	75-09-2	2	mg/kg	<2	<2	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1653086)								
HK1102543-013	Anonymous	Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1653086) - Continued								
HK1102543-013	Anonymous	**Bromodichloromethane**	75-27-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1653086)								
HK1102543-013	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1653035)								
HK1102515-007	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1653035)								
HK1102515-007	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1652724)								
HK1102480-015	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074E: Halogenated Aliphatics (QC Lot: 1652724) - Continued								
HK1102480-015	Anonymous	**Methylene chloride**	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1659071)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<1	40 mg/kg	114	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1661443)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	87.6	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	99.2	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1661444)											
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	95.9	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	85.3	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	96.1	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	87.4	----	56	116	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	91.6	----	56	116	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	111	----	74	138	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1653086)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	90.2	----	66	128	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	89.2	----	73	129	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	93.0	----	73	132	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	92.3	----	76	124	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	121	----	70	129	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	109	----	77	131	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1653086)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	87.8	----	64	123	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1653086)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074E: Halogenated Aliphatics (QC Lot: 1653086) - Continued											
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	93.3	----	78	123	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	88.3	----	79	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1653086)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	93.2	----	78	127	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	87.5	----	75	121	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1653086)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1653035)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	85.8	----	50	118	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	76.0	----	46	113	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	84.2	----	49	118	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	87.3	----	49	118	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	81.7	----	53	117	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	82.2	----	47	118	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	91.3	----	59	122	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	88.7	----	58	122	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	91.7	----	53	119	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	98.6	----	66	120	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	94.5	----	50	125	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	97.2	----	66	125	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	78.5	----	60	109	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	102	----	50	124	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	98.7	----	53	120	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	98.1	----	57	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1653035)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	87.6	----	24	116	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	94.0	----	45	125	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	112	----	68	128	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	89.3	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	87.1	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	78.9	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	82.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	99.6	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.2	----	77	111	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-074B: Oxygenated Compounds (QC Lot: 1652724)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.8	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	90.6	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	85.4	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	90.1	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	88.6	----	67	116	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1659071)										
HK1102480-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	107	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1661443)										
HK1102461-001	Anonymous	**EG020: Copper**	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1661444)										
HK1102577-003	Q-07 DUPLICATE	**EG020: Copper**	7440-50-8	5 mg/kg	76.1	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651731)										
HK1102480-006	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	75.7	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	80.9	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651733)										
HK1102480-006	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	106	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			

Sub-Matrix: **SOIL**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate - Continued			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Report No. AG

HK1102718

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 9
Contact	: MS ESTHER LEE	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1102718
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong	Amendment	: 1
E-mail	: esther.lee@erm.com	E-mail	: Godfrey.Chan@alsglobal.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 02-FEB-2011
Order number	: ----			Issue Date	: 13-FEB-2012
C-O-C number	: H020148			No. of samples received	: 7
Site	: XRL 823A SITE MNOPQR			No. of samples analysed	: 7

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 14-FEB-2011

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: **HK1102718**

Sample(s) were received in a chilled condition.

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

Water sample(s) were filtered prior to dissolved metal analysis.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: P-01	P-02	P-05	P-06	Q-07
				Client sampling date / time: [02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]
				HK1102718-001	HK1102718-002	HK1102718-003	HK1102718-004	HK1102718-005
EG: Metals and Major Cations - Filtered								
EG036: Mercury	7439-97-6	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	----
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C9 - C16 Fraction	----	500	µg/L	<500	<500	<500	<500	<500
C17 - C35 Fraction	----	500	µg/L	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L	<5	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L	<5	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5	<5	<5
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5	<5	<5
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	<2	<2	<2	<2
Acenaphthylene	208-96-8	2	µg/L	<2	<2	<2	<2	<2
Acenaphthene	83-32-9	2	µg/L	<2	<2	<2	<2	<2
Fluorene	86-73-7	2	µg/L	<2	<2	<2	<2	<2
Phenanthrene	85-01-8	2	µg/L	<2	<2	<2	<2	<2
Anthracene	120-12-7	2	µg/L	<2	<2	<2	<2	<2
Fluoranthene	206-44-0	2	µg/L	<2	<2	<2	<2	<2
Pyrene	129-00-0	2	µg/L	<2	<2	<2	<2	<2
Chrysene	218-01-9	2	µg/L	<2	<2	<2	<2	<2
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	<4	<4	<4	<4
EP-075G: Chlorinated Hydrocarbons								
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	<4	<4	<4	<4

Sub-Matrix: **WATER**			*Client sample ID*	**P-01**	**P-02**	**P-05**	**P-06**	**Q-07**
			Client sampling date / time	[02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]	[02-FEB-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1102718-001**	**HK1102718-002**	**HK1102718-003**	**HK1102718-004**	**HK1102718-005**
EP-075G: Chlorinated Hydrocarbons - Continued								
EP-066: Polychlorinated Biphenyls								
Total Polychlorinated biphenyls	----	1	µg/L	<1	<1	<1	<1	----
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**109**	**114**	**114**	**113**	**113**
Toluene-D8	2037-26-5	0.1	%	**97.2**	**98.5**	**97.6**	**98.9**	**98.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**103**	**101**	**101**	**102**	**102**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**109**	**114**	**114**	**113**	**113**
Toluene-D8	2037-26-5	0.1	%	**97.2**	**98.5**	**97.6**	**98.9**	**98.8**
4-Bromofluorobenzene	460-00-4	0.1	%	**103**	**101**	**101**	**102**	**102**
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%	**44.1**	**38.6**	**60.5**	**43.6**	**61.3**
Phenol-d6	13127-88-3	0.1	%	**30.8**	**25.5**	**43.5**	**31.6**	**41.4**
2.4.6-Tribromophenol	118-79-6	0.1	%	**67.5**	**75.6**	**83.3**	**73.8**	**90.3**
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%	**60.5**	**58.8**	**77.3**	**63.6**	**85.5**
2-Fluorobiphenyl	321-60-8	0.1	%	**59.0**	**57.6**	**74.4**	**58.8**	**75.3**
4-Terphenyl-d14	1718-51-0	0.1	%	**78.2**	**85.7**	**88.2**	**83.2**	**96.6**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%	**102**	**122**	**82.5**	**125**	----
Dibutylchlorendate	1770-80-5	0.1	%	**90.9**	**105**	**104**	**124**	----

Sub-Matrix: WATER				Client sample ID	N3-03A	TRIP BLANK			
				Client sampling date / time	[02-FEB-2011]	[01-FEB-2011]			
Compound	CAS Number	LOR	Unit		HK1102718-006	HK1102718-007			
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	----			
C9 - C16 Fraction	----	500	µg/L		<500	----			
C17 - C35 Fraction	----	500	µg/L		<500	----			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5			
Toluene	108-88-3	5	µg/L		<5	<5			
Ethylbenzene	100-41-4	5	µg/L		<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10			
Styrene	100-42-5	5	µg/L		<5	<5			
ortho-Xylene	95-47-6	5	µg/L		<5	<5			
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50			
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50			
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50			
Trichloroethene	79-01-6	5	µg/L		<5	<5			
Tetrachloroethene	127-18-4	5	µg/L		<5	<5			
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5			
Bromodichloromethane	75-27-4	5	µg/L		<5	<5			
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	----			
Acenaphthylene	208-96-8	2	µg/L		<2	----			
Acenaphthene	83-32-9	2	µg/L		<2	----			
Fluorene	86-73-7	2	µg/L		<2	----			
Phenanthrene	85-01-8	2	µg/L		<2	----			
Anthracene	120-12-7	2	µg/L		<2	----			
Fluoranthene	206-44-0	2	µg/L		<2	----			
Pyrene	129-00-0	2	µg/L		<2	----			
Chrysene	218-01-9	2	µg/L		<2	----			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	----			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	----			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**115**	----			
Toluene-D8	2037-26-5	0.1	%		**99.6**	----			

Sub-Matrix: **WATER**				Client sample ID	**N3-03A**	**TRIP BLANK**			
				Client sampling date / time	[02-FEB-2011]	[01-FEB-2011]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102718-006**	**HK1102718-007**			
EP-080S: TPH(Volatile)/BTEX Surrogate - Continued									Surrogate control limits listed at end of this report.
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	----			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**115**	**114**			
Toluene-D8	2037-26-5	0.1	%		**99.6**	**99.2**			
4-Bromofluorobenzene	460-00-4	0.1	%		**103**	**101**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**53.4**	----			
Phenol-d6	13127-88-3	0.1	%		**36.7**	----			
2.4.6-Tribromophenol	118-79-6	0.1	%		**74.1**	----			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**72.1**	----			
2-Fluorobiphenyl	321-60-8	0.1	%		**62.1**	----			
4-Terphenyl-d14	1718-51-0	0.1	%		**80.4**	----			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**99.2**	----			
Dibutylchlorendate	1770-80-5	0.1	%		**123**	----			

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 1660680)								
HK1102718-002	P-02	**EG036: Mercury**	7439-97-6	0.5	µg/L	<0.5	<0.5	0.0
HK1102799-007	Anonymous	**EG036: Mercury**	7439-97-6	0.5	µg/L	<0.5	<0.5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)								
HK1102480-015	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1659143)								
HK1102718-006	N3-03A	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1652724)								
HK1102480-015	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1659143)								
HK1102718-006	N3-03A	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1659143)								
HK1102718-006	N3-03A	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1659143)								

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074G: Trihalomethanes (THM) (QC Lot: 1659143) - Continued								
HK1102718-006	N3-03A	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1652724)								
HK1102480-015	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1659143)								
HK1102718-006	N3-03A	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 1660680)											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.5	0.2 µg/L	101	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1651717)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	80.8	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	78.4	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1652725)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	124	----	68	127	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1652724)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	89.3	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	87.1	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	78.9	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	82.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	99.6	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	94.2	----	77	111	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1659143)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	78.6	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	85.8	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	85.7	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	91.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	82.8	----	68	108	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	89.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1652724)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	86.8	----	52	130	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1659143)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	101	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1652724)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	90.6	----	64	122	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-074E: Halogenated Aliphatics (QC Lot: 1652724) - Continued											
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	85.4	----	62	117	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1659143)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	87.2	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	84.8	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1652724)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	90.1	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	88.6	----	67	116	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1659143)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	95.4	----	67	116	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1651718)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	76.5	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	72.0	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	76.0	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	79.5	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	80.2	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	83.3	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	87.1	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	88.1	----	65	105	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	86.4	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	89.1	----	53	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1651718)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	82.0	----	52	110	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1659674)											
Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	80.5	----	49	147	----	----

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

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 1660680)										
HK1102718-001	P-01	EG036: Mercury	7439-97-6	0.2 µg/L	102	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: WATER

Compound	CAS Number	Recovery Limits (%) Low	High

Sub-Matrix: **WATER**

Compound	*CAS Number*	*Recovery Limits (%)* Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. AH

HK1102993

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 6**
Contact	: **MR ANGUS CHOI**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1102993**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **angus.choi@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **09-FEB-2011**
Order number	: **----**			Issue Date	: **21-FEB-2011**
C-O-C number	: **H024593**			No. of samples received	: **2**
Site	: **SITE Q**			No. of samples analysed	: **2**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 16-FEB-2011

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: **HK1102993**

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 Hong Kong, Chapter 553, Section 6.

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

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: Q-06 Client sampling date / time: 09-FEB-2011 09:10 HK1102993-001	Client sample ID: TRIP BK Client sampling date / time: [09-FEB-2011] HK1102993-002			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	20	µg/L	<20	----			
C9 - C16 Fraction	----	500	µg/L	<500	----			
C17 - C35 Fraction	----	500	µg/L	<500	----			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	5	µg/L	<5	<5			
Toluene	108-88-3	5	µg/L	<5	<5			
Ethylbenzene	100-41-4	5	µg/L	<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10			
Styrene	100-42-5	5	µg/L	<5	<5			
ortho-Xylene	95-47-6	5	µg/L	<5	<5			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	µg/L	<50	<50			
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	50	µg/L	<50	<50			
Trichloroethene	79-01-6	5	µg/L	<5	<5			
Tetrachloroethene	127-18-4	5	µg/L	<5	<5			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	5	µg/L	<5	<5			
Bromodichloromethane	75-27-4	5	µg/L	<5	<5			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5			
EP-075B: Polyaromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	2	µg/L	<2	----			
Acenaphthylene	208-96-8	2	µg/L	<2	----			
Acenaphthene	83-32-9	2	µg/L	<2	----			
Fluorene	86-73-7	2	µg/L	<2	----			
Phenanthrene	85-01-8	2	µg/L	<2	----			
Anthracene	120-12-7	2	µg/L	<2	----			
Fluoranthene	206-44-0	2	µg/L	<2	----			
Pyrene	129-00-0	2	µg/L	<2	----			
Chrysene	218-01-9	2	µg/L	<2	----			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	----			

Sub-Matrix: **WATER**				*Client sample ID*	**Q-06**	**TRIP BK**			
				Client sampling date / time	09-FEB-2011 09:10	[09-FEB-2011]			
Compound	*CAS Number*	*LOR*	*Unit*		**HK1102993-001**	**HK1102993-002**			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	----			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**113**	----			
Toluene-D8	2037-26-5	0.1	%		**97.0**	----			
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	----			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**113**	**110**			
Toluene-D8	2037-26-5	0.1	%		**97.0**	**98.4**			
4-Bromofluorobenzene	460-00-4	0.1	%		**106**	**103**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**45.5**	----			
Phenol-d6	13127-88-3	0.1	%		**30.5**	----			
2.4.6-Tribromophenol	118-79-6	0.1	%		**81.8**	----			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**63.6**	----			
2-Fluorobiphenyl	321-60-8	0.1	%		**58.7**	----			
4-Terphenyl-d14	1718-51-0	0.1	%		**93.0**	----			

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1664396)								
HK1102993-001	Q-06	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1659143)								
HK1102718-006	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1659143)								
HK1102718-006	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1659143)								
HK1102718-006	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1659143)								
HK1102718-006	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1659143)								
HK1102718-006	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1664396)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	123	----	68	127	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1666040)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	88.6	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	95.6	----	32	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1659143)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	78.6	----	56	117	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	85.8	----	55	125	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	85.7	----	68	114	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	91.9	----	64	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	82.8	----	68	108	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report					
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1659143) - Continued											
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	89.5	----	77	111	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1659143)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	101	----	52	130	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1659143)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	87.2	----	64	122	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	84.8	----	62	117	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1659143)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	94.9	----	65	124	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	95.4	----	67	116	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1666039)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	86.0	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	82.0	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	84.5	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	89.4	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	90.7	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	95.9	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	101	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	101	----	65	105	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	102	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	103	----	53	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1666039)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	92.7	----	52	110	----	----

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

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

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%)	
		Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AI

HK1113552

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 20**
Contact	: **MR ANGUS CHOI**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1113552**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**	**Amendment**	: **1**
E-mail	: **angus.choi@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **15-JUN-2011**
Order number	: **----**			Issue Date	: **05-JUL-2011**
C-O-C number	: **H020402**			No. of samples received	: **9**
Site	: **----**			No. of samples analysed	: **9**

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Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 27-JUN-2011

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: **HK1113552**

Particular samples required dilution prior to SVOC and PCB analysis due to matrix interference. LOR values have been adjusted accordingly.

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: SOIL

Compound	CAS Number	LOR	Unit	Client sample ID: P-08 0.5M Client sampling date / time: 15-JUN-2011 09:30 HK1113552-001	P-08 1.5M 15-JUN-2011 10:00 HK1113552-002	P-09 0.5M 15-JUN-2011 11:00 HK1113552-003	P-09 1.5M 15-JUN-2011 11:15 HK1113552-004	P-10 0.5M 15-JUN-2011 13:00 HK1113552-005
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	15.5	26.2	15.1	20.6	18.1
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	0.4
EG020: Copper	7440-50-8	1	mg/kg	6	6	12	6	8
EG020: Lead	7439-92-1	1	mg/kg	149	264	59	487	216
EG020: Nickel	7440-02-0	1	mg/kg	5	4	6	4	6
EG020: Zinc	7440-66-6	1	mg/kg	76	80	162	124	122
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	6	8	6	9	12
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	2890	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	4010	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	P-08 0.5M	P-08 1.5M	P-09 0.5M	P-09 1.5M	P-10 0.5M
				Client sampling date / time	15-JUN-2011 09:30	15-JUN-2011 10:00	15-JUN-2011 11:00	15-JUN-2011 11:15	15-JUN-2011 13:00
Compound	CAS Number	LOR	Unit		HK1113552-001	HK1113552-002	HK1113552-003	HK1113552-004	HK1113552-005
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.5	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<5.00	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<5.00	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	**84.0**	<5.00	**9.18**
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**97.9**	**96.1**	**85.8**	**95.7**
Toluene-D8	2037-26-5	0.1	%		**105**	**104**	**107**	**96.2**	**96.4**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.8**	**91.9**	**106**	**99.8**	**103**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**101**	**97.9**	**96.1**	**85.8**	**95.7**
Toluene-D8	2037-26-5	0.1	%		**105**	**104**	**107**	**96.2**	**96.4**
4-Bromofluorobenzene	460-00-4	0.1	%		**93.8**	**91.9**	**106**	**99.8**	**103**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**114**	**98.0**	**Not Determined**	**91.4**	**97.6**
4-Terphenyl-d14	1718-51-0	0.1	%		**109**	**93.0**	**Not Determined**	**83.6**	**89.9**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**63.6**	**84.4**	**Not Determined**	**66.8**	**75.8**

Sub-Matrix: **SOIL**				*Client sample ID*	**P-08 0.5M**	**P-08 1.5M**	**P-09 0.5M**	**P-09 1.5M**	**P-10 0.5M**
				Client sampling date / time	15-JUN-2011 09:30	15-JUN-2011 10:00	15-JUN-2011 11:00	15-JUN-2011 11:15	15-JUN-2011 13:00
Compound	*CAS Number*	*LOR*	*Unit*		**HK1113552-001**	**HK1113552-002**	**HK1113552-003**	**HK1113552-004**	**HK1113552-005**
EP-066S: PCB Surrogate - Continued									Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%		**86.0**	**56.6**	**Not Determined**	**83.8**	**82.4**

Sub-Matrix: SOIL			Client sample ID	P-10 1.5M	P-08 0.5M DUP			
			Client sampling date / time	15-JUN-2011 14:00	[15-JUN-2011]			
Compound	CAS Number	LOR	Unit	HK1113552-006	HK1113552-009			
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**25.6**	**18.5**			
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1			
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	**0.4**	<0.2			
EG020: Copper	7440-50-8	1	mg/kg	**9**	**8**			
EG020: Lead	7439-92-1	1	mg/kg	**433**	**166**			
EG020: Nickel	7440-02-0	1	mg/kg	**4**	**5**			
EG020: Zinc	7440-66-6	1	mg/kg	**142**	**97**			
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2			
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**7**	**8**			
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5			
C9 - C16 Fraction	----	200	mg/kg	<200	<200			
C17 - C35 Fraction	----	500	mg/kg	<500	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20			
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50			
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50			
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00			
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50			
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50			
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50			
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0			
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2			
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50			
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50			
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50			
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50			
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50	<0.50			

Sub-Matrix: SOIL				Client sample ID	P-10 1.5M	P-08 0.5M DUP			
				Client sampling date / time	15-JUN-2011 14:00	[15-JUN-2011]			
Compound	CAS Number	LOR	Unit		HK1113552-006	HK1113552-009			
EP-074L: Methyl-tert-butyl Ether - Continued									
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1			
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500			
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500			
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500			
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500			
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500			
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500			
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500			
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500			
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500			
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500			
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500			
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500			
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500			
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500			
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500			
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500			
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50			
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200			
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**91.4**	**110**			
Toluene-D8	2037-26-5	0.1	%		**99.7**	**95.6**			
4-Bromofluorobenzene	460-00-4	0.1	%		**96.1**	**86.4**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**91.4**	**110**			
Toluene-D8	2037-26-5	0.1	%		**99.7**	**95.6**			
4-Bromofluorobenzene	460-00-4	0.1	%		**96.1**	**86.4**			
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates									Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%		**88.2**	**93.0**			
4-Terphenyl-d14	1718-51-0	0.1	%		**84.5**	**84.6**			
EP-066S: PCB Surrogate									Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%		**64.0**	**69.2**			
Dibutylchlorendate	1770-80-5	0.1	%		**87.2**	**60.8**			

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK			
				Client sampling date / time	[15-JUN-2011]	[15-JUN-2011]			
Compound	CAS Number	LOR	Unit		HK1113552-007	HK1113552-008			
ED/EK: Inorganic Nonmetallic Parameters									
EK025MD: Free Cyanide	----	0.01	mg/L		----	<0.01			
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		----	<20			
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		----	<20			
EG: Metals and Major Cations - Filtered									
EG020: Cadmium	7440-43-9	0.2	µg/L		----	<0.2			
EG020: Copper	7440-50-8	1	µg/L		----	<1			
EG020: Lead	7439-92-1	1	µg/L		----	<1			
EG020: Nickel	7440-02-0	1	µg/L		----	<1			
EG020: Zinc	7440-66-6	10	µg/L		----	<10			
EG036: Mercury	7439-97-6	0.1	µg/L		----	<0.1			
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		----	<20			
C9 - C16 Fraction	----	500	µg/L		----	<500			
C17 - C35 Fraction	----	500	µg/L		----	<500			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5			
Toluene	108-88-3	5	µg/L		<5	<5			
Ethylbenzene	100-41-4	5	µg/L		<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10			
Styrene	100-42-5	5	µg/L		<5	<5			
ortho-Xylene	95-47-6	5	µg/L		<5	<5			
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50			
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50			
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50			
Trichloroethene	79-01-6	5	µg/L		<5	<5			
Tetrachloroethene	127-18-4	5	µg/L		<5	<5			
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5			
Bromodichloromethane	75-27-4	5	µg/L		<5	<5			
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5			
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		----	<2			

Sub-Matrix: WATER				Client sample ID	TRIP BLANK	FIELD BLANK			
				Client sampling date / time	[15-JUN-2011]	[15-JUN-2011]			
Compound	CAS Number	LOR	Unit		HK1113552-007	HK1113552-008			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		----	<2			
Acenaphthylene	208-96-8	2	µg/L		----	<2			
Acenaphthene	83-32-9	2	µg/L		----	<2			
Fluorene	86-73-7	2	µg/L		----	<2			
Phenanthrene	85-01-8	2	µg/L		----	<2			
Anthracene	120-12-7	2	µg/L		----	<2			
Fluoranthene	206-44-0	2	µg/L		----	<2			
Pyrene	129-00-0	2	µg/L		----	<2			
Benz(a)anthracene	56-55-3	2	µg/L		----	<2			
Chrysene	218-01-9	2	µg/L		----	<2			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		----	<4			
Benzo(a)pyrene	50-32-8	2	µg/L		----	<2			
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		----	<2			
Dibenz(a.h)anthracene	53-70-3	2	µg/L		----	<2			
Benzo(g.h.i)perylene	191-24-2	2	µg/L		----	<2			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		----	<20			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		----	<4			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		----	**97.6**			
Toluene-D8	2037-26-5	0.1	%		----	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		----	**91.1**			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**86.7**	**97.6**			
Toluene-D8	2037-26-5	0.1	%		**99.6**	**100**			
4-Bromofluorobenzene	460-00-4	0.1	%		**94.9**	**91.1**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		----	**37.0**			
Phenol-d6	13127-88-3	0.1	%		----	**26.2**			
2.4.6-Tribromophenol	118-79-6	0.1	%		----	**69.3**			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		----	**61.5**			
2-Fluorobiphenyl	321-60-8	0.1	%		----	**57.0**			
4-Terphenyl-d14	1718-51-0	0.1	%		----	**85.8**			

Laboratory Duplicate (DUP) Report

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1834060)								
HK1113552-003	P-09 0.5M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	15.1	16.1	6.6
HK1113437-002	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	49.5	49.5	0.0
EA/ED: Physical and Aggregate Properties (QC Lot: 1834061)								
HK1113552-005	P-10 0.5M	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	18.1	18.7	3.4
EA/ED: Physical and Aggregate Properties (QC Lot: 1836415)								
HK1113552-009	P-08 0.5M DUP	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	18.5	18.2	1.4
HK1113638-004	Anonymous	**EA055: Moisture Content (dried @ 103°C)**	----	0.1	%	47.1	47.4	0.7
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1836857)								
HK1113552-002	P-08 1.5M	**EK025MD: Free Cyanide**	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1836422)								
HK1113552-002	P-08 1.5M	**EG020: Cadmium**	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	6	6	0.0
		EG020: Lead	7439-92-1	1	mg/kg	264	271	2.4
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	80	91	12.8
HK1113558-004	Anonymous	**EG020: Cadmium**	7440-43-9	0.01	mg/kg	0.31	0.27	15.6
		EG020: Copper	7440-50-8	0.05	mg/kg	49.1	55.5	12.3
		EG020: Lead	7439-92-1	0.05	mg/kg	66.5	68.7	3.4
		EG020: Nickel	7440-02-0	1	mg/kg	37	36	2.9
		EG020: Zinc	7440-66-6	1	mg/kg	212	226	6.1
EG: Metals and Major Cations (QC Lot: 1836424)								
HK1113552-002	P-08 1.5M	**EG036: Mercury**	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
HK1113558-004	Anonymous	**EG036: Mercury**	7439-97-6	0.02	mg/kg	0.10	0.10	0.0
EG: Metals and Major Cations (QC Lot: 1842680)								
HK1113552-002	P-08 1.5M	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
HK1113786-002	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829148)								
HK1113143-001	Anonymous	**C9 - C16 Fraction**	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829154)								
HK1113143-001	Anonymous	**C6 - C8 Fraction**	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Benzene**	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092) - Continued								
HK1113078-003	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1831092)								
HK1113078-003	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1827412)								
HK1113087-008	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)								
HK1113552-004	P-09 1.5M	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1831080)								
HK1113078-003	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1833089)								
HK1113552-004	P-09 1.5M	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1833089) - Continued								
HK1113552-004	P-09 1.5M	**Phenanthrene**	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180)								
HK1113634-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0
		Anthracene	120-12-7	50	µg/kg	<50	<50	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1831080)								
HK1113078-003	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1833089)								
HK1113552-004	P-09 1.5M	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1834180)								
HK1113634-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1834180) - Continued								
HK1113634-001	Anonymous	**Phenol**	108-95-2	500	µg/kg	<500	<500	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1838350)								
HK1113552-008	FIELD BLANK	**EK025MD: Free Cyanide**	----	0.01	mg/L	<0.01	<0.01	0.0
EG: Metals and Major Cations (QC Lot: 1846972)								
HK1113786-004	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1838393)								
HK1113424-004	Anonymous	**EG020: Cadmium**	7440-43-9	0.2	µg/L	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	µg/L	<1	<1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Nickel	7440-02-0	1	µg/L	<1	<1	0.0
		EG020: Zinc	7440-66-6	10	µg/L	<10	<10	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1832686)								
HK1113075-001	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1832685)								
HK1113075-001	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1832685)								
HK1113075-001	Anonymous	**2-Butanone (MEK)**	78-93-3	50	µg/L	<50	<50	0.0
		2-Propanone (Acetone)	67-64-1	500	µg/L	<500	<500	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1832685)								
HK1113075-001	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	81	89	10.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1832685)								
HK1113075-001	Anonymous	**Chloroform**	67-66-3	5	µg/L	113	134	17.1
		Bromodichloromethane	75-27-4	5	µg/L	16	16	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1832685)								
HK1113075-001	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method Blank (MB) Report	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report			
	Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	RPD (%)

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
		LOR	Unit	Result	Spike Concentration	LCS Spike Recovery (%)	DCS Spike Recovery (%)	Low Recovery Limits (%)	High Recovery Limits (%)	Value RPD (%)	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1836857)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	19.32 mg/kg	92.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1836422)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	95.3	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	95.5	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	90.7	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	98.8	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1836424)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.02	0.1 mg/kg	88.0	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1842680)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	100	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829148)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	89.4	----	67	110	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	83.6	----	69	119	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829154)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	116	----	63	126	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	65	135	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	72	132	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.6	----	82	115	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	104	----	85	119	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	86.5	----	77	121	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	84	118	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1831092)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	70.3	----	62	124	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	91.6	----	80	128	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	90.0	----	72	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	74	129	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	88.8	----	74	114	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1827412)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	92.7	----	39	158	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)											

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088) - Continued											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	75.1	----	39	158	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1831080)											
Naphthalene	91-20-3	50	µg/kg	<50	25 µg/kg	106	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	25 µg/kg	97.6	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	25 µg/kg	99.8	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	25 µg/kg	102	----	50	119	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	25 µg/kg	101	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	25 µg/kg	101	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	25 µg/kg	102	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	25 µg/kg	100	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	25 µg/kg	97.2	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	25 µg/kg	103	----	60	127	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	25 µg/kg	89.7	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	25 µg/kg	98.4	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	25 µg/kg	79.7	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	25 µg/kg	72.3	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	25 µg/kg	92.4	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	25 µg/kg	80.2	----	59	125	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1833089)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	102	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	86.2	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	109	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	107	----	50	119	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	110	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	98.9	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	113	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	113	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	88.6	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	110	----	60	127	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	86.0	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	97.6	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	83.2	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	96.0	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	78.2	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	67.8	----	59	125	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	106	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	97.0	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	97.2	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	95.8	----	50	119	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180) - Continued											
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	102	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	106	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	106	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	101	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	112	----	60	127	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	98.0	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	108	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	83.2	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	110	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	112	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	114	----	59	125	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1831080)											
Phenol	108-95-2	500	µg/kg	<500	25 µg/kg	98.4	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	25 µg/kg	98.7	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	25 µg/kg	100	----	87	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1833089)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	108	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	117	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	99.1	----	87	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1834180)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	96.6	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	103	----	87	123	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1838350)											
EK025MD: Free Cyanide	----	0.01	mg/L	<0.01	0.1932 mg/L	92.5	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1846972)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1838393)											
EG020: Cadmium	7440-43-9	0.2	µg/L	<0.2	100 µg/L	94.0	----	85	115	----	----
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	101	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	94.4	----	85	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	100 µg/L	96.7	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	98.9	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1838394)											

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 1838394) - Continued											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.05	0.2 µg/L	92.5	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1831089)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	71.0	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	54.1	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1832686)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	104	----	63	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1832685)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	99.9	----	63	113	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	92.7	----	66	115	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	99.0	----	70	103	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	102	----	67	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	78.6	----	61	111	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	88.6	----	69	108	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1832685)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	111	----	55	128	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1832685)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	97.9	----	68	111	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	89.0	----	55	122	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1832685)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	108	----	70	117	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	87.7	----	70	113	----	----
EP-075A: Phenols (QC Lot: 1831088)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	34.0	----	10	100	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1831088)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	58.3	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	58.7	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	60.6	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	58.8	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	67.7	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	68.7	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	75.4	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	75.6	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	79.3	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	77.5	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	79.0	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	80.7	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	82.8	----	45	107	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	DCS	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1831088) - Continued											
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	83.6	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	79.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1831088)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	97.0	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1831088)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	63.1	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1836857)										
HK1113552-001	P-08 0.5M	**EK025MD: Free Cyanide**	----	19.32 mg/kg	88.4	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1836422)										
HK1113552-001	P-08 0.5M	**EG020: Cadmium**	7440-43-9	5 mg/kg	100	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	80.6	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	92.7	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1836424)										
HK1113552-001	P-08 0.5M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	80.9	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1842680)										
HK1113552-001	P-08 0.5M	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	79.1	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829148)										
HK1113078-003	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	85.8	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	84.0	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1829154)										
HK1113078-003	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	96.2	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	MSD	Recovery Limits (%) Low	High	RPD (%) Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1838350)										
HK1113552-008	FIELD BLANK	**EK025MD: Free Cyanide**	----	0.1932 mg/L	109	----	75	125	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1846972)										
HK1113552-008	FIELD BLANK	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	90.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1838393)										
HK1113552-008	FIELD BLANK	**EG020: Cadmium**	7440-43-9	100 µg/L	99.2	----	75	125	----	----
		EG020: Copper	7440-50-8	100 µg/L	102	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	94.4	----	75	125	----	----
		EG020: Nickel	7440-02-0	100 µg/L	103	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	98.7	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1838394)										
HK1113552-008	FIELD BLANK	**EG036: Mercury**	7439-97-6	0.2 µg/L	87.5	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115

Sub-Matrix: **WATER**

		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AJ

HK1113786

CERTIFICATE OF ANALYSIS

Client	: ERM HONG KONG	Laboratory	: ALS Technichem HK Pty Ltd	Page	: 1 of 17
Contact	: MR ANGUS CHOI	Contact	: Chan Kwok Fai, Godfrey	Work Order	: HK1113786
Address	: 21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong		
E-mail	: angus.choi@erm.com	E-mail	: Godfrey.Chan@alsenviro.com		
Telephone	: +852 2271 3000	Telephone	: +852 2610 1044		
Facsimile	: +852 2723 5660	Facsimile	: +852 2610 2021		
Project	: XRL 823A 0125309	Quote number	: HK/1393a/2010	Date Samples Received	: 17-JUN-2011
Order number	: ----			Issue Date	: 04-JUL-2011
C-O-C number	: H020430			No. of samples received	: 8
Site	: ----			No. of samples analysed	: 8

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 30-JUN-2011

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: **HK1113786**

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.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Water sample(s) were filtered prior to dissolved metal analysis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: P-09 3.0-3.45M	P-09 4.5-4.95M	P-09 6.0-6.45M	P-10 3.0-3.45M	P-10 4.5-4.95M
				Client sampling date / time: [16-JUN-2011]	[16-JUN-2011]	[16-JUN-2011]	[17-JUN-2011]	[17-JUN-2011]
				HK1113786-001	HK1113786-002	HK1113786-003	HK1113786-006	HK1113786-007
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**16.8**	**13.6**	**17.3**	**9.0**	**22.0**
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1	<1	<1
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	**0.2**	<0.2	<0.2
EG020: Copper	7440-50-8	1	mg/kg	**29**	**32**	**27**	**3**	**19**
EG020: Lead	7439-92-1	1	mg/kg	**29**	**65**	**41**	**14**	**51**
EG020: Nickel	7440-02-0	1	mg/kg	**3**	**4**	**4**	<1	**7**
EG020: Zinc	7440-66-6	1	mg/kg	**66**	**314**	**211**	**32**	**313**
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**8**	**6**	**5**	**4**	**7**
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1	<1	<1
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5	<5	<5
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200	<200	<200
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500	<500	<500
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00	<1.00	<1.00
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2	<2	<2
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50

Sub-Matrix: SOIL				Client sample ID	P-09 3.0-3.45M	P-09 4.5-4.95M	P-09 6.0-6.45M	P-10 3.0-3.45M	P-10 4.5-4.95M
				Client sampling date / time	[16-JUN-2011]	[16-JUN-2011]	[16-JUN-2011]	[17-JUN-2011]	[17-JUN-2011]
Compound	CAS Number	LOR	Unit		HK1113786-001	HK1113786-002	HK1113786-003	HK1113786-006	HK1113786-007
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthylene	208-96-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Acenaphthene	83-32-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluorene	86-73-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Phenanthrene	85-01-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Anthracene	120-12-7	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Fluoranthene	206-44-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Pyrene	129-00-0	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benz(a)anthracene	56-55-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Chrysene	218-01-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(a)pyrene	50-32-8	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg		<0.500	<0.500	<0.500	<0.500	<0.500
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg		<0.200	<0.200	<0.200	<0.200	<0.200
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg		<5.00	<5.00	<5.00	<5.00	<5.00
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.5**	**90.3**	**95.2**	**108**	**90.0**
Toluene-D8	2037-26-5	0.1	%		**92.4**	**89.2**	**93.2**	**93.4**	**88.1**
4-Bromofluorobenzene	460-00-4	0.1	%		**86.3**	**91.7**	**87.0**	**89.9**	**86.4**
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**98.5**	**90.3**	**95.2**	**108**	**90.0**
Toluene-D8	2037-26-5	0.1	%		**92.4**	**89.2**	**93.2**	**93.4**	**88.1**
4-Bromofluorobenzene	460-00-4	0.1	%		**86.3**	**91.7**	**87.0**	**89.9**	**86.4**
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**73.7**	**82.0**	**87.5**	**93.3**	**85.4**
4-Terphenyl-d14	1718-51-0	0.1	%		**80.9**	**82.2**	**80.9**	**87.3**	**83.6**
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**71.7**	**78.7**	**82.9**	**90.9**	**86.6**

Sub-Matrix: **SOIL**			*Client sample ID*	**P-09 3.0-3.45M**	**P-09 4.5-4.95M**	**P-09 6.0-6.45M**	**P-10 3.0-3.45M**	**P-10 4.5-4.95M**
			Client sampling date / time	[16-JUN-2011]	[16-JUN-2011]	[16-JUN-2011]	[17-JUN-2011]	[17-JUN-2011]
Compound	*CAS Number*	*LOR*	*Unit*	**HK1113786-001**	**HK1113786-002**	**HK1113786-003**	**HK1113786-006**	**HK1113786-007**
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.
Dibutylchlorendate	1770-80-5	0.1	%	**92.7**	**97.5**	**99.2**	**104**	**98.2**

Sub-Matrix: SOIL			Client sample ID	P-10 6.0-6.45M				
			Client sampling date / time	[17-JUN-2011]				
Compound	CAS Number	LOR	Unit	HK1113786-008				
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**20.2**				
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1				
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2				
EG020: Copper	7440-50-8	1	mg/kg	**9**				
EG020: Lead	7439-92-1	1	mg/kg	**41**				
EG020: Nickel	7440-02-0	1	mg/kg	**4**				
EG020: Zinc	7440-66-6	1	mg/kg	**115**				
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2				
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**6**				
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1				
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5				
C9 - C16 Fraction	----	200	mg/kg	<200				
C17 - C35 Fraction	----	500	mg/kg	<500				
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20				
Toluene	108-88-3	0.50	mg/kg	<0.50				
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50				
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00				
Styrene	100-42-5	0.50	mg/kg	<0.50				
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50				
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50				
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0				
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2				
Trichloroethene	79-01-6	0.50	mg/kg	<0.50				
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50				
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50				
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50				
EP-074L: Methyl-tert-butyl Ether								
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg	<0.50				

Sub-Matrix: SOIL			Client sample ID	P-10 6.0-6.45M				
			Client sampling date / time	[17-JUN-2011]				
Compound	CAS Number	LOR	Unit	HK1113786-008				
EP-074L: Methyl-tert-butyl Ether - Continued								
EP-066: Polychlorinated Biphenyls								
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1				
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)								
Naphthalene	91-20-3	0.500	mg/kg	<0.500				
Acenaphthylene	208-96-8	0.500	mg/kg	<0.500				
Acenaphthene	83-32-9	0.500	mg/kg	<0.500				
Fluorene	86-73-7	0.500	mg/kg	<0.500				
Phenanthrene	85-01-8	0.500	mg/kg	<0.500				
Anthracene	120-12-7	0.500	mg/kg	<0.500				
Fluoranthene	206-44-0	0.500	mg/kg	<0.500				
Pyrene	129-00-0	0.500	mg/kg	<0.500				
Benz(a)anthracene	56-55-3	0.500	mg/kg	<0.500				
Chrysene	218-01-9	0.500	mg/kg	<0.500				
Benzo(b)fluoranthene	205-99-2	0.500	mg/kg	<0.500				
Benzo(k)fluoranthene	207-08-9	0.500	mg/kg	<0.500				
Benzo(a)pyrene	50-32-8	0.500	mg/kg	<0.500				
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	mg/kg	<0.500				
Dibenz(a.h)anthracene	53-70-3	0.500	mg/kg	<0.500				
Benzo(g.h.i)perylene	191-24-2	0.500	mg/kg	<0.500				
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate								
Phenol	108-95-2	0.50	mg/kg	<0.50				
Hexachlorobenzene (HCB)	118-74-1	0.200	mg/kg	<0.200				
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	mg/kg	<5.00				
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**102**				
Toluene-D8	2037-26-5	0.1	%	**93.0**				
4-Bromofluorobenzene	460-00-4	0.1	%	**89.1**				
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%	**102**				
Toluene-D8	2037-26-5	0.1	%	**93.0**				
4-Bromofluorobenzene	460-00-4	0.1	%	**89.1**				
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.
2-Fluorobiphenyl	321-60-8	0.1	%	**89.0**				
4-Terphenyl-d14	1718-51-0	0.1	%	**81.9**				
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.
Tetrachlorometaxylene	877-09-8	0.1	%	**92.6**				
Dibutylchlorendate	1770-80-5	0.1	%	**106**				

Sub-Matrix: WATER				Client sample ID	EQ BLANK 8	TRIP BLANK			
				Client sampling date / time	[17-JUN-2011]	[17-JUN-2011]			
Compound	CAS Number	LOR	Unit		HK1113786-004	HK1113786-005			
EG: Metals and Major Cations									
EG049: Trivalent Chromium	16065-83-1	20	µg/L		<20	----			
EG050: Hexavalent Chromium	18540-29-9	20	µg/L		<20	----			
EG: Metals and Major Cations - Filtered									
EG020: Copper	7440-50-8	1	µg/L		<1	----			
EG020: Lead	7439-92-1	1	µg/L		<1	----			
EG020: Nickel	7440-02-0	1	µg/L		<1	----			
EG020: Zinc	7440-66-6	10	µg/L		<10	----			
EG036: Mercury	7439-97-6	0.1	µg/L		<0.1	----			
EP-071HK: Total Petroleum Hydrocarbons (TPH)									
C6 - C8 Fraction	----	20	µg/L		<20	----			
C9 - C16 Fraction	----	500	µg/L		<500	----			
C17 - C35 Fraction	----	500	µg/L		<500	----			
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)									
Benzene	71-43-2	5	µg/L		<5	<5			
Toluene	108-88-3	5	µg/L		<5	<5			
Ethylbenzene	100-41-4	5	µg/L		<5	<5			
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L		<10	<10			
Styrene	100-42-5	5	µg/L		<5	<5			
ortho-Xylene	95-47-6	5	µg/L		<5	<5			
EP-074B: Oxygenated Compounds									
2-Propanone (Acetone)	67-64-1	50	µg/L		<50	<50			
2-Butanone (MEK)	78-93-3	50	µg/L		<50	<50			
EP-074E: Halogenated Aliphatics									
Methylene chloride	75-09-2	50	µg/L		<50	<50			
Trichloroethene	79-01-6	5	µg/L		<5	<5			
Tetrachloroethene	127-18-4	5	µg/L		<5	<5			
EP-074G: Trihalomethanes (THM)									
Chloroform	67-66-3	5	µg/L		<5	<5			
Bromodichloromethane	75-27-4	5	µg/L		<5	<5			
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L		<5	<5			
EP-075A: Phenols									
Phenol	108-95-2	2	µg/L		<2	----			
EP-075B: Polyaromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	2	µg/L		<2	----			
Acenaphthylene	208-96-8	2	µg/L		<2	----			

Sub-Matrix: WATER				Client sample ID	EQ BLANK 8	TRIP BLANK			
				Client sampling date / time	[17-JUN-2011]	[17-JUN-2011]			
Compound	CAS Number	LOR	Unit		HK1113786-004	HK1113786-005			
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Acenaphthene	83-32-9	2	µg/L		<2	----			
Fluorene	86-73-7	2	µg/L		<2	----			
Phenanthrene	85-01-8	2	µg/L		<2	----			
Anthracene	120-12-7	2	µg/L		<2	----			
Fluoranthene	206-44-0	2	µg/L		<2	----			
Pyrene	129-00-0	2	µg/L		<2	----			
Benz(a)anthracene	56-55-3	2	µg/L		<2	----			
Chrysene	218-01-9	2	µg/L		<2	----			
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	----			
Benzo(a)pyrene	50-32-8	2	µg/L		<2	----			
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L		<2	----			
Dibenz(a.h)anthracene	53-70-3	2	µg/L		<2	----			
Benzo(g.h.i)perylene	191-24-2	2	µg/L		<2	----			
EP-075C: Phthalate Esters									
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L		<20	----			
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	----			
EP-080S: TPH(Volatile)/BTEX Surrogate									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.6**	----			
Toluene-D8	2037-26-5	0.1	%		**99.3**	----			
4-Bromofluorobenzene	460-00-4	0.1	%		**86.7**	----			
EP-074S: VOC Surrogates									Surrogate control limits listed at end of this report.
Dibromofluoromethane	1868-53-7	0.1	%		**88.6**	**87.8**			
Toluene-D8	2037-26-5	0.1	%		**99.3**	**97.6**			
4-Bromofluorobenzene	460-00-4	0.1	%		**86.7**	**86.5**			
EP-075S: Acid Extractable Surrogates									Surrogate control limits listed at end of this report.
2-Fluorophenol	367-12-4	0.1	%		**43.3**	----			
Phenol-d6	13127-88-3	0.1	%		**28.3**	----			
2.4.6-Tribromophenol	118-79-6	0.1	%		**78.1**	----			
EP-075T: Base/Neutral Extractable Surrogates									Surrogate control limits listed at end of this report.
Nitrobenzene -d5	4165-60-0	0.1	%		**70.1**	----			
2-Fluorobiphenyl	321-60-8	0.1	%		**65.1**	----			
4-Terphenyl-d14	1718-51-0	0.1	%		**90.2**	----			

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1838378)								
HK1113786-001	P-09 3.0-3.45M	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.8	16.8	0.0
HK1113884-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.4	49.0	5.4
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)								
HK1113870-002	Anonymous	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1838618)								
HK1113786-002	P-09 4.5-4.95M	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1838623)								
HK1113786-002	P-09 4.5-4.95M	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	32	32	0.0
		EG020: Lead	7439-92-1	1	mg/kg	65	62	4.7
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	314	301	4.2
EG: Metals and Major Cations (QC Lot: 1842680)								
HK1113552-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1113786-002	P-09 4.5-4.95M	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)								
HK1113143-002	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)								
HK1113143-002	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)								
HK1113078-003	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1831092)								
HK1113078-003	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)								
HK1113078-003	Anonymous	Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)								
HK1113078-003	Anonymous	Chloroform	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)								
HK1113552-004	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1839197)								
HK1113143-002	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1839197)								
HK1113143-002	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations (QC Lot: 1846972)								
HK1113786-004	EQ BLANK 8	**EG050: Hexavalent Chromium**	18540-29-9	0.02	mg/L	<0.02	<0.02	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)								
HK1113965-001	Anonymous	**EG036: Mercury**	7439-97-6	0.5	µg/L	<0.5	<0.5	0.0
EG: Metals and Major Cations - Filtered (QC Lot: 1842734)								
HK1113969-003	Anonymous	**EG020: Copper**	7440-50-8	1	µg/L	<1	<1	0.0
		EG020: Lead	7439-92-1	1	µg/L	<1	<1	0.0
		EG020: Nickel	7440-02-0	1	µg/L	10	10	0.0
		EG020: Zinc	7440-66-6	10	µg/L	54	54	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1844827)								
HK1113786-004	EQ BLANK 8	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826)								
HK1113786-004	EQ BLANK 8	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826) - Continued								
HK1113786-004	EQ BLANK 8	**Benzene**	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1844826)								
HK1113786-004	EQ BLANK 8	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1844826)								
HK1113786-004	EQ BLANK 8	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1844826)								
HK1113786-004	EQ BLANK 8	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1844826)								
HK1113786-004	EQ BLANK 8	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	0.1932 mg/kg	91.1	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1838618)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.02	0.1 mg/kg	104	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1838623)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.9	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	96.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	91.8	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	98.3	----	85	115	----	----
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1842680)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	100	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	88.9	----	67	110	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	74.0	----	69	119	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	113	----	63	126	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	65	135	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	72	132	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.6	----	82	115	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	104	----	85	119	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	86.5	----	77	121	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	84	118	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1831092)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	70.3	----	62	124	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	91.6	----	80	128	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	90.0	----	72	134	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	74	129	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	88.8	----	74	114	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	75.1	----	39	158	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1839197)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	101	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	87.1	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	96.8	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	95.1	----	50	119	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	101	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	95.2	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	101	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	102	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	86.1	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	97.5	----	60	127	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	87.9	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	88.8	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	80.1	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	86.3	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	100	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	100	----	59	125	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1839197)											

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1839197) - Continued											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	93.0	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	99.5	----	87	123	----	----

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EG: Metals and Major Cations (QC Lot: 1846972)											
EG050: Hexavalent Chromium	18540-29-9	0.02	mg/L	<0.02	0.5 mg/L	94.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.05	0.2 µg/L	99.0	----	85	115	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1842734)											
EG020: Copper	7440-50-8	1	µg/L	<1	100 µg/L	94.9	----	85	115	----	----
EG020: Lead	7439-92-1	1	µg/L	<1	100 µg/L	97.7	----	85	115	----	----
EG020: Nickel	7440-02-0	1	µg/L	<1	100 µg/L	92.8	----	85	115	----	----
EG020: Zinc	7440-66-6	10	µg/L	<10	100 µg/L	93.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1831089)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	71.0	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	54.1	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1844827)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	107	----	63	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	90.1	----	63	113	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	86.3	----	66	115	----	----
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	84.4	----	70	103	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	83.0	----	67	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	78.4	----	61	111	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	73.7	----	69	108	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1844826)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	119	----	55	128	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1844826)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	85.3	----	68	111	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	78.2	----	55	122	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1844826)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	83.6	----	70	117	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	78.8	----	70	113	----	----
EP-075A: Phenols (QC Lot: 1831088)											
Phenol	108-95-2	2	µg/L	<2	5 µg/L	34.0	----	10	100	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1831088)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	58.3	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	58.7	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	60.6	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	58.8	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	67.7	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	68.7	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	75.4	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	75.6	----	65	105	----	----
Benz(a)anthracene	56-55-3	2	µg/L	<2	5 µg/L	79.3	----	64	106	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	77.5	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	79.0	----	53	104	----	----
Benzo(a)pyrene	50-32-8	2	µg/L	<2	5 µg/L	80.7	----	52	103	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	2	µg/L	<2	5 µg/L	82.8	----	45	107	----	----
Dibenz(a.h)anthracene	53-70-3	2	µg/L	<2	5 µg/L	83.6	----	43	92	----	----
Benzo(g.h.i)perylene	191-24-2	2	µg/L	<2	5 µg/L	79.2	----	42	102	----	----
EP-075C: Phthalate Esters (QC Lot: 1831088)											
Bis(2-ethylhexyl)phthalate	117-81-7	20	µg/L	<20	5 µg/L	97.0	----	0	226	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1831088)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	63.1	----	52	110	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)										
HK1113870-001	Anonymous	**EK025MD: Free Cyanide**	----	19.32 mg/kg	99.3	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1838618)										
HK1113786-001	P-09 3.0-3.45M	**EG036: Mercury**	7439-97-6	0.1 mg/kg	99.2	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1838623)										
HK1113786-001	P-09 3.0-3.45M	**EG020: Cadmium**	7440-43-9	5 mg/kg	98.2	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	94.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1842680)										
HK1113552-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	79.1	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)										
HK1113786-001	P-09 3.0-3.45M	**C9 - C16 Fraction**	----	31 mg/kg	77.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	80.8	----	50	130	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)										
HK1113786-001	P-09 3.0-3.45M	**C6 - C8 Fraction**	----	3 mg/kg	121	----	50	130	----	----

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EG: Metals and Major Cations (QC Lot: 1846972)										
HK1113552-008	Anonymous	**EG050: Hexavalent Chromium**	18540-29-9	0.5 mg/L	90.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)										
HK1113786-004	EQ BLANK 8	**EG036: Mercury**	7439-97-6	0.2 µg/L	90.0	----	75	125	----	----
EG: Metals and Major Cations - Filtered (QC Lot: 1842734)										
HK1113786-004	EQ BLANK 8	**EG020: Copper**	7440-50-8	100 µg/L	96.2	----	75	125	----	----
		EG020: Lead	7439-92-1	100 µg/L	96.6	----	75	125	----	----
		EG020: Nickel	7440-02-0	100 µg/L	95.8	----	75	125	----	----
		EG020: Zinc	7440-66-6	100 µg/L	91.5	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130

Sub-Matrix: **SOIL**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-066S: PCB Surrogate - Continued			
Dibutylchlorendate	1770-80-5	50	130

Sub-Matrix: **WATER**		Recovery Limits (%)	
Compound	***CAS Number***	***Low***	***High***
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141

Report No. AK

HK1113870

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 11**
Contact	: **MR ANGUS CHOI**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1113870**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **angus.choi@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **18-JUN-2011**
Order number	: **----**			Issue Date	: **04-JUL-2011**
C-O-C number	: **H015188**			No. of samples received	: **3**
Site	: **----**			No. of samples analysed	: **3**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 30-JUN-2011

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: **HK1113870**

Sample(s) were received in a chilled condition.

Soil sample(s) analysed on an as received basis. Result(s) reported on a dry weight basis.

Soil sample(s) as received, digested by In-house method E-ASTM D3974-81 based on ASTM D3974-81, prior to the determination of metals.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **SOIL**

Compound	CAS Number	LOR	Unit	Client sample ID: P-08 3.0-3.45M Client sampling date / time: [18-JUN-2011] HK1113870-001	P-08 4.5-4.95M [18-JUN-2011] HK1113870-002	P-08 6.0-6.45M [18-JUN-2011] HK1113870-003		
EA/ED: Physical and Aggregate Properties								
EA055: Moisture Content (dried @ 103°C)	----	0.1	%	**8.1**	**25.0**	**8.3**		
ED/EK: Inorganic Nonmetallic Parameters								
EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	<1		
EG: Metals and Major Cations								
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	**0.2**		
EG020: Copper	7440-50-8	1	mg/kg	**38**	**8**	**38**		
EG020: Lead	7439-92-1	1	mg/kg	**58**	**27**	**61**		
EG020: Nickel	7440-02-0	1	mg/kg	**3**	**5**	**4**		
EG020: Zinc	7440-66-6	1	mg/kg	**119**	**177**	**246**		
EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	<0.2		
EG049: Trivalent Chromium	16065-83-1	1	mg/kg	**9**	**7**	**7**		
EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	<1		
EP-071HK: Total Petroleum Hydrocarbons (TPH)								
C6 - C8 Fraction	----	5	mg/kg	<5	<5	<5		
C9 - C16 Fraction	----	200	mg/kg	<200	<200	<200		
C17 - C35 Fraction	----	500	mg/kg	<500	<500	<500		
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)								
Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	<0.20		
Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	<0.50		
Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	<0.50		
meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	<1.00		
Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	<0.50		
ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-074B: Oxygenated Compounds								
2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	<50		
2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	<5.0		
EP-074E: Halogenated Aliphatics								
Methylene chloride	75-09-2	2	mg/kg	<2	<2	<2		
Trichloroethene	79-01-6	0.50	mg/kg	<0.50	<0.50	<0.50		
Tetrachloroethene	127-18-4	0.50	mg/kg	<0.50	<0.50	<0.50		
EP-074G: Trihalomethanes (THM)								
Chloroform	67-66-3	0.50	mg/kg	<0.50	<0.50	<0.50		
Bromodichloromethane	75-27-4	0.50	mg/kg	<0.50	<0.50	<0.50		

Sub-Matrix: SOIL				Client sample ID	P-08 3.0-3.45M	P-08 4.5-4.95M	P-08 6.0-6.45M		
				Client sampling date / time	[18-JUN-2011]	[18-JUN-2011]	[18-JUN-2011]		
Compound	CAS Number	LOR	Unit		HK1113870-001	HK1113870-002	HK1113870-003		
EP-074L: Methyl-tert-butyl Ether									
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.50	mg/kg		<0.50	<0.50	<0.50		
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	0.1	mg/kg		<0.1	<0.1	<0.1		
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs)									
Naphthalene	91-20-3	0.500	MG/KG		<0.500	<0.500	<0.500		
Acenaphthylene	208-96-8	0.500	MG/KG		<0.500	<0.500	<0.500		
Acenaphthene	83-32-9	0.500	MG/KG		<0.500	<0.500	<0.500		
Fluorene	86-73-7	0.500	MG/KG		<0.500	<0.500	<0.500		
Phenanthrene	85-01-8	0.500	MG/KG		<0.500	<0.500	<0.500		
Anthracene	120-12-7	0.500	MG/KG		<0.500	<0.500	<0.500		
Fluoranthene	206-44-0	0.500	MG/KG		<0.500	<0.500	<0.500		
Pyrene	129-00-0	0.500	MG/KG		<0.500	<0.500	<0.500		
Benz(a)anthracene	56-55-3	0.500	MG/KG		<0.500	<0.500	<0.500		
Chrysene	218-01-9	0.500	MG/KG		<0.500	<0.500	<0.500		
Benzo(b)fluoranthene	205-99-2	0.500	MG/KG		<0.500	<0.500	<0.500		
Benzo(k)fluoranthene	207-08-9	0.500	MG/KG		<0.500	<0.500	<0.500		
Benzo(a)pyrene	50-32-8	0.500	MG/KG		<0.500	<0.500	<0.500		
Indeno(1.2.3.cd)pyrene	193-39-5	0.500	MG/KG		<0.500	<0.500	<0.500		
Dibenz(a.h)anthracene	53-70-3	0.500	MG/KG		<0.500	<0.500	<0.500		
Benzo(g.h.i)perylene	191-24-2	0.500	MG/KG		<0.500	<0.500	<0.500		
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate									
Phenol	108-95-2	0.50	MG/KG		<0.50	<0.50	<0.50		
Hexachlorobenzene (HCB)	118-74-1	0.200	MG/KG		<0.200	<0.200	<0.200		
Bis(2-ethylhexyl)phthalate	117-81-7	5.00	MG/KG		<5.00	<5.00	<5.00		
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.4**	**90.1**	**105**		
Toluene-D8	2037-26-5	0.1	%		**96.0**	**93.9**	**91.0**		
4-Bromofluorobenzene	460-00-4	0.1	%		**88.7**	**86.6**	**91.5**		
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**97.4**	**90.1**	**105**		
Toluene-D8	2037-26-5	0.1	%		**96.0**	**93.9**	**91.0**		
4-Bromofluorobenzene	460-00-4	0.1	%		**88.7**	**86.6**	**91.5**		
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorobiphenyl	321-60-8	0.1	%		**93.9**	**88.3**	**87.1**		
4-Terphenyl-d14	1718-51-0	0.1	%		**91.2**	**86.7**	**90.1**		
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**98.8**	**95.0**	**107**		
Dibutylchlorendate	1770-80-5	0.1	%		**111**	**102**	**114**		

Sub-Matrix: **SOIL**			*Client sample ID*	**P-08 3.0-3.45M**	**P-08 4.5-4.95M**	**P-08 6.0-6.45M**		
			Client sampling date / time	[18-JUN-2011]	[18-JUN-2011]	[18-JUN-2011]		
Compound	*CAS Number*	*LOR*	*Unit*	**HK1113870-001**	**HK1113870-002**	**HK1113870-003**		
EP-066S: PCB Surrogate - Continued								Surrogate control limits listed at end of this report.

Laboratory Duplicate (DUP) Report

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 1838378)								
HK1113786-001	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	16.8	16.8	0.0
HK1113884-002	Anonymous	EA055: Moisture Content (dried @ 103°C)	----	0.1	%	46.4	49.0	5.4
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)								
HK1113870-002	P-08 4.5-4.95M	EK025MD: Free Cyanide	----	1	mg/kg	<1	<1	0.0
EG: Metals and Major Cations (QC Lot: 1838618)								
HK1113786-002	Anonymous	EG036: Mercury	7439-97-6	0.2	mg/kg	<0.2	<0.2	0.0
EG: Metals and Major Cations (QC Lot: 1838623)								
HK1113786-002	Anonymous	EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	<0.2	0.0
		EG020: Copper	7440-50-8	1	mg/kg	32	32	0.0
		EG020: Lead	7439-92-1	1	mg/kg	65	62	4.7
		EG020: Nickel	7440-02-0	1	mg/kg	4	4	0.0
		EG020: Zinc	7440-66-6	1	mg/kg	314	301	4.2
EG: Metals and Major Cations (QC Lot: 1842680)								
HK1113552-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
HK1113786-002	Anonymous	EG3060: Hexavalent Chromium	18540-29-9	1	mg/kg	<1	<1	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)								
HK1113143-002	Anonymous	C9 - C16 Fraction	----	200	mg/kg	<200	<200	0.0
		C17 - C35 Fraction	----	500	mg/kg	<500	<500	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)								
HK1113143-002	Anonymous	C6 - C8 Fraction	----	5	mg/kg	<5	<5	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)								
HK1113078-003	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1839211)								
HK1113143-002	Anonymous	Benzene	71-43-2	0.20	mg/kg	<0.20	<0.20	0.0
		Toluene	108-88-3	0.50	mg/kg	<0.50	<0.50	0.0
		Ethylbenzene	100-41-4	0.50	mg/kg	<0.50	<0.50	0.0
		Styrene	100-42-5	0.50	mg/kg	<0.50	<0.50	0.0
		ortho-Xylene	95-47-6	0.50	mg/kg	<0.50	<0.50	0.0
		meta- & para-Xylene	108-38-3 106-42-3	1.00	mg/kg	<1.00	<1.00	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1831092)								
HK1113078-003	Anonymous	2-Butanone (MEK)	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-074B: Oxygenated Compounds (QC Lot: 1831092) - Continued								
HK1113078-003	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	mg/kg	<50	<50	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1839211)								
HK1113143-002	Anonymous	**2-Butanone (MEK)**	78-93-3	5.0	mg/kg	<5.0	<5.0	0.0
		2-Propanone (Acetone)	67-64-1	50	mg/kg	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1839211)								
HK1113143-002	Anonymous	**Tetrachloroethene**	127-18-4	0.04	mg/kg	<0.04	<0.04	0.0
		Trichloroethene	79-01-6	0.10	mg/kg	<0.10	<0.10	0.0
		Methylene chloride	75-09-2	5	mg/kg	<5	<5	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1839211)								
HK1113143-002	Anonymous	**Chloroform**	67-66-3	0.04	mg/kg	<0.04	<0.04	0.0
		Bromodichloromethane	75-27-4	0.10	mg/kg	<0.10	<0.10	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)								
HK1113078-003	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1839211)								
HK1113143-002	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	0.50	mg/kg	<0.50	<0.50	0.0
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)								
HK1113552-004	Anonymous	**Total Polychlorinated biphenyls**	----	0.1	mg/kg	<0.1	<0.1	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180)								
HK1113634-001	Anonymous	**Fluoranthene**	206-44-0	150	µg/kg	<150	<150	0.0
		Pyrene	129-00-0	150	µg/kg	<150	<150	0.0
		Benz(a)anthracene	56-55-3	150	µg/kg	<150	<150	0.0
		Chrysene	218-01-9	150	µg/kg	<150	<150	0.0
		Benzo(b)fluoranthene	205-99-2	150	µg/kg	<150	<150	0.0
		Benzo(k)fluoranthene	207-08-9	150	µg/kg	<150	<150	0.0
		Benzo(a)pyrene	50-32-8	150	µg/kg	<150	<150	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	150	µg/kg	<150	<150	0.0
		Dibenz(a.h)anthracene	53-70-3	150	µg/kg	<150	<150	0.0
		Benzo(g.h.i)perylene	191-24-2	150	µg/kg	<150	<150	0.0
		Naphthalene	91-20-3	50	µg/kg	<50	<50	0.0
		Acenaphthylene	208-96-8	50	µg/kg	<50	<50	0.0
		Acenaphthene	83-32-9	50	µg/kg	<50	<50	0.0
		Fluorene	86-73-7	50	µg/kg	<50	<50	0.0
		Phenanthrene	85-01-8	50	µg/kg	<50	<50	0.0

Matrix: SOIL

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180) - Continued								
HK1113634-001	Anonymous	**Anthracene**	120-12-7	50	µg/kg	<50	<50	0.0
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1839197)								
HK1113143-002	Anonymous	**Naphthalene**	91-20-3	500	µg/kg	<500	<500	0.0
		Acenaphthylene	208-96-8	500	µg/kg	<500	<500	0.0
		Acenaphthene	83-32-9	500	µg/kg	<500	<500	0.0
		Fluorene	86-73-7	500	µg/kg	<500	<500	0.0
		Phenanthrene	85-01-8	500	µg/kg	<500	<500	0.0
		Anthracene	120-12-7	500	µg/kg	<500	<500	0.0
		Fluoranthene	206-44-0	500	µg/kg	<500	<500	0.0
		Pyrene	129-00-0	500	µg/kg	<500	<500	0.0
		Benz(a)anthracene	56-55-3	500	µg/kg	<500	<500	0.0
		Chrysene	218-01-9	500	µg/kg	<500	<500	0.0
		Benzo(b)fluoranthene	205-99-2	500	µg/kg	<500	<500	0.0
		Benzo(k)fluoranthene	207-08-9	500	µg/kg	<500	<500	0.0
		Benzo(a)pyrene	50-32-8	500	µg/kg	<500	<500	0.0
		Indeno(1.2.3.cd)pyrene	193-39-5	500	µg/kg	<500	<500	0.0
		Dibenz(a.h)anthracene	53-70-3	500	µg/kg	<500	<500	0.0
		Benzo(g.h.i)perylene	191-24-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1834180)								
HK1113634-001	Anonymous	**Bis(2-ethylhexyl)phthalate**	117-81-7	1000	µg/kg	<1000	<1000	0.0
		Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	<50	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1839197)								
HK1113143-002	Anonymous	**Hexachlorobenzene (HCB)**	118-74-1	200	µg/kg	<200	<200	0.0
		Phenol	108-95-2	500	µg/kg	<500	<500	0.0
		Bis(2-ethylhexyl)phthalate	117-81-7	5000	µg/kg	<5000	<5000	0.0

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

Matrix: SOIL

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)											
EK025MD: Free Cyanide	----	1	mg/kg	<1	0.1932 mg/kg	91.1	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1838618)											
EG036: Mercury	7439-97-6	0.02	mg/kg	<0.02	0.1 mg/kg	104	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1838623)											
EG020: Cadmium	7440-43-9	0.2	mg/kg	<0.2	5 mg/kg	90.9	----	85	115	----	----
EG020: Copper	7440-50-8	1	mg/kg	<1	5 mg/kg	96.4	----	85	115	----	----
EG020: Lead	7439-92-1	1	mg/kg	<1	5 mg/kg	91.8	----	85	115	----	----
EG020: Nickel	7440-02-0	1	mg/kg	<1	5 mg/kg	98.3	----	85	115	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations (QC Lot: 1838623) - Continued											
EG020: Zinc	7440-66-6	1	mg/kg	<1	5 mg/kg	100	----	85	115	----	----
EG: Metals and Major Cations (QC Lot: 1842680)											
EG3060: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	100	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)											
C9 - C16 Fraction	----	200	mg/kg	<200	31 mg/kg	88.9	----	67	110	----	----
C17 - C35 Fraction	----	500	mg/kg	<500	75 mg/kg	74.0	----	69	119	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)											
C6 - C8 Fraction	----	5	mg/kg	<5	3 mg/kg	113	----	63	126	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1831092)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	108	----	65	135	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	96.6	----	72	132	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	98.6	----	82	115	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	104	----	85	119	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	86.5	----	77	121	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	84	118	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1839211)											
Benzene	71-43-2	0.04	mg/kg	<0.04	0.16 mg/kg	118	----	65	135	----	----
Toluene	108-88-3	0.04	mg/kg	<0.04	0.16 mg/kg	95.2	----	72	132	----	----
Ethylbenzene	100-41-4	0.04	mg/kg	<0.04	0.16 mg/kg	83.7	----	82	115	----	----
meta- & para-Xylene	108-38-3 106-42-3	0.08	mg/kg	<0.08	0.32 mg/kg	91.4	----	85	119	----	----
Styrene	100-42-5	0.04	mg/kg	<0.04	0.16 mg/kg	92.0	----	77	121	----	----
ortho-Xylene	95-47-6	0.04	mg/kg	<0.04	0.16 mg/kg	89.8	----	84	118	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1831092)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	70.3	----	62	124	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1839211)											
2-Propanone (Acetone)	67-64-1	5.0	mg/kg	<5	----	----	----	----	----	----	----
2-Butanone (MEK)	78-93-3	0.4	mg/kg	<0.4	1.6 mg/kg	104	----	62	124	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1831092)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	91.6	----	80	128	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	90.0	----	72	134	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1839211)											
Methylene chloride	75-09-2	5.0	mg/kg	<5	----	----	----	----	----	----	----
Trichloroethene	79-01-6	0.04	mg/kg	<0.04	0.16 mg/kg	91.0	----	80	128	----	----
Tetrachloroethene	127-18-4	0.04	mg/kg	<0.04	0.16 mg/kg	96.4	----	72	134	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EP-074G: Trihalomethanes (THM) (QC Lot: 1831092)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	106	----	74	129	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	88.8	----	74	114	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1839211)											
Chloroform	67-66-3	0.04	mg/kg	<0.04	0.16 mg/kg	104	----	74	129	----	----
Bromodichloromethane	75-27-4	0.04	mg/kg	<0.04	0.16 mg/kg	77.3	----	74	114	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1831092)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1839211)											
Methyl tert-Butyl Ether (MTBE)	1634-04-4	0.5	mg/kg	<0.50	----	----	----	----	----	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1833088)											
Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.1	0.5 mg/kg	75.1	----	39	158	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1834180)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	106	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	97.0	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	97.2	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	95.8	----	50	119	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	105	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	102	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	106	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	106	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	101	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	112	----	60	127	----	----
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	98.0	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	108	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	83.2	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	110	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	112	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	114	----	59	125	----	----
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1839197)											
Naphthalene	91-20-3	50	µg/kg	<50	250 µg/kg	101	----	41	120	----	----
Acenaphthylene	208-96-8	50	µg/kg	<50	250 µg/kg	87.1	----	42	98	----	----
Acenaphthene	83-32-9	50	µg/kg	<50	250 µg/kg	96.8	----	46	117	----	----
Fluorene	86-73-7	50	µg/kg	<50	250 µg/kg	95.1	----	50	119	----	----
Phenanthrene	85-01-8	50	µg/kg	<50	250 µg/kg	101	----	49	118	----	----
Anthracene	120-12-7	50	µg/kg	<50	250 µg/kg	95.2	----	49	107	----	----
Fluoranthene	206-44-0	50	µg/kg	<50	250 µg/kg	101	----	58	120	----	----
Pyrene	129-00-0	50	µg/kg	<50	250 µg/kg	102	----	57	118	----	----
Benz(a)anthracene	56-55-3	50	µg/kg	<50	250 µg/kg	86.1	----	59	116	----	----
Chrysene	218-01-9	50	µg/kg	<50	250 µg/kg	97.5	----	60	127	----	----

Matrix: **SOIL**

Method: Compound	CAS Number	Method Blank (MB) Report LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%) LCS	Spike Recovery (%) DCS	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
EP-076A: Polycyclic Aromatic Hydrocarbons (PAHs) (QC Lot: 1839197) - Continued											
Benzo(b)fluoranthene	205-99-2	50	µg/kg	<50	250 µg/kg	87.9	----	63	120	----	----
Benzo(k)fluoranthene	207-08-9	50	µg/kg	<50	250 µg/kg	88.8	----	56	126	----	----
Benzo(a)pyrene	50-32-8	50	µg/kg	<50	250 µg/kg	80.1	----	53	101	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	50	µg/kg	<50	250 µg/kg	86.3	----	64	130	----	----
Dibenz(a.h)anthracene	53-70-3	50	µg/kg	<50	250 µg/kg	100	----	57	125	----	----
Benzo(g.h.i)perylene	191-24-2	50	µg/kg	<50	250 µg/kg	100	----	59	125	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1834180)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	96.6	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	103	----	87	123	----	----
EP-076B: Phenol, Hexachlorobenzene and Bis(2-ethylhexyl) Phthalate (QC Lot: 1839197)											
Phenol	108-95-2	500	µg/kg	<500	250 µg/kg	93.0	----	29	129	----	----
Hexachlorobenzene (HCB)	118-74-1	50	µg/kg	<50	250 µg/kg	106	----	54	120	----	----
Bis(2-ethylhexyl)phthalate	117-81-7	1000	µg/kg	<1000	250 µg/kg	99.5	----	87	123	----	----

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

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%) MS	Spike Recovery (%) MSD	Recovery Limits (%) Low	Recovery Limits (%) High	RPD (%) Value	RPD (%) Control Limit
ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 1849522)										
HK1113870-001	P-08 3.0-3.45M	**EK025MD: Free Cyanide**	----	19.32 mg/kg	99.3	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1838618)										
HK1113786-001	Anonymous	**EG036: Mercury**	7439-97-6	0.1 mg/kg	99.2	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1838623)										
HK1113786-001	Anonymous	**EG020: Cadmium**	7440-43-9	5 mg/kg	98.2	----	75	125	----	----
		EG020: Copper	7440-50-8	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Lead	7439-92-1	5 mg/kg	# Not Determined	----	75	125	----	----
		EG020: Nickel	7440-02-0	5 mg/kg	94.4	----	75	125	----	----
		EG020: Zinc	7440-66-6	5 mg/kg	# Not Determined	----	75	125	----	----
EG: Metals and Major Cations (QC Lot: 1842680)										
HK1113552-001	Anonymous	**EG3060: Hexavalent Chromium**	18540-29-9	40 mg/kg	79.1	----	75	125	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839196)										
HK1113786-001	Anonymous	**C9 - C16 Fraction**	----	31 mg/kg	77.4	----	50	130	----	----
		C17 - C35 Fraction	----	75 mg/kg	80.8	----	50	130	----	----

Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	Spike Recovery (%): MSD	Recovery Limits (%): Low	Recovery Limits (%): High	RPD (%): Value	RPD (%): Control Limit
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1839210)										
HK1113786-001	Anonymous	**C6 - C8 Fraction**	----	3 mg/kg	121	----	50	130	----	----

Surrogate Control Limits

Sub-Matrix: **SOIL**

Compound	CAS Number	Recovery Limits (%): Low	Recovery Limits (%): High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	80	120
Toluene-D8	2037-26-5	81	117
4-Bromofluorobenzene	460-00-4	74	121
EP-076S: Polycyclic Aromatics Hydrocarbons (PAHs) Surrogates			
2-Fluorobiphenyl	321-60-8	50	130
4-Terphenyl-d14	1718-51-0	50	130
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130

Report No. AL

HK1113965

CERTIFICATE OF ANALYSIS

Client	: **ERM HONG KONG**	Laboratory	: **ALS Technichem HK Pty Ltd**	Page	: **1 of 6**
Contact	: **MR ANGUS CHOI**	Contact	: **Chan Kwok Fai, Godfrey**	**Work Order**	: **HK1113965**
Address	: **21/F, LINCOLN HOUSE, 979 KING`S ROAD, TAIKOO PLACE, ISLAND EAST, QUARRY BAY, HONG KONG**	Address	: **11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong**		
E-mail	: **angus.choi@erm.com**	E-mail	: **Godfrey.Chan@alsenviro.com**		
Telephone	: **+852 2271 3000**	Telephone	: **+852 2610 1044**		
Facsimile	: **+852 2723 5660**	Facsimile	: **+852 2610 2021**		
Project	: **XRL 823A 0125309**	Quote number	: **HK/1393a/2010**	Date Samples Received	: **21-JUN-2011**
Order number	: **----**			Issue Date	: **05-JUL-2011**
C-O-C number	: **H020429**			No. of samples received	: **4**
Site	: **----**			No. of samples analysed	: **4**

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 sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes. The completion date of analysis is: 30-JUN-2011

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: **HK1113965**

Sample(s) were received in a chilled condition.
Water sample(s) analysed and reported on an as received basis.
Water sample(s) were filtered prior to dissolved metal analysis.

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

Signatories	*Position*	*Authorised results for*
Anh Ngoc Huynh	**Senior Chemist**	**Organics**
Fung Lim Chee, Richard	**General Manager**	**Inorganics**

Analytical Results

Sub-Matrix: **WATER**

Compound	CAS Number	LOR	Unit	Client sample ID: P-08	P-09	P-10	TRIP BLANK
				Client sampling date / time: [21-JUN-2011]	[21-JUN-2011]	[21-JUN-2011]	[21-JUN-2011]
				HK1113965-001	HK1113965-002	HK1113965-003	HK1113965-004
EG: Metals and Major Cations - Filtered							
EG036: Mercury	7439-97-6	0.5	µg/L	<0.5	<0.5	<0.5	----
EP-071HK: Total Petroleum Hydrocarbons (TPH)							
C6 - C8 Fraction	----	20	µg/L	<20	<20	<20	----
C9 - C16 Fraction	----	500	µg/L	<500	<500	<500	----
C17 - C35 Fraction	----	500	µg/L	**500**	<500	<500	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH)							
Benzene	71-43-2	5	µg/L	<5	<5	<5	<5
Toluene	108-88-3	5	µg/L	<5	<5	<5	<5
Ethylbenzene	100-41-4	5	µg/L	<5	<5	<5	<5
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	<10	<10	<10
Styrene	100-42-5	5	µg/L	<5	<5	<5	<5
ortho-Xylene	95-47-6	5	µg/L	<5	<5	<5	<5
EP-074B: Oxygenated Compounds							
2-Propanone (Acetone)	67-64-1	50	µg/L	<50	<50	<50	<50
2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	<50	<50
EP-074E: Halogenated Aliphatics							
Methylene chloride	75-09-2	50	µg/L	<50	<50	<50	<50
Trichloroethene	79-01-6	5	µg/L	<5	<5	<5	<5
Tetrachloroethene	127-18-4	5	µg/L	<5	<5	<5	<5
EP-074G: Trihalomethanes (THM)							
Chloroform	67-66-3	5	µg/L	<5	<5	<5	<5
Bromodichloromethane	75-27-4	5	µg/L	<5	<5	<5	<5
EP-074L: Methyl-tert-butyl Ether							
Methyl tert-Butyl Ether (MTBE)	1634-04-4	5	µg/L	<5	<5	<5	<5
EP-075B: Polyaromatic Hydrocarbons (PAHs)							
Naphthalene	91-20-3	2	µg/L	<2	<2	<2	----
Acenaphthylene	208-96-8	2	µg/L	<2	<2	<2	----
Acenaphthene	83-32-9	2	µg/L	<2	<2	<2	----
Fluorene	86-73-7	2	µg/L	<2	<2	<2	----
Phenanthrene	85-01-8	2	µg/L	<2	<2	<2	----
Anthracene	120-12-7	2	µg/L	<2	<2	<2	----
Fluoranthene	206-44-0	2	µg/L	<2	<2	<2	----
Pyrene	129-00-0	2	µg/L	<2	<2	<2	----
Chrysene	218-01-9	2	µg/L	<2	<2	<2	----

Sub-Matrix: WATER				Client sample ID	P-08	P-09	P-10	TRIP BLANK	
				Client sampling date / time	[21-JUN-2011]	[21-JUN-2011]	[21-JUN-2011]	[21-JUN-2011]	
Compound	CAS Number	LOR	Unit		HK1113965-001	HK1113965-002	HK1113965-003	HK1113965-004	
EP-075B: Polyaromatic Hydrocarbons (PAHs) - Continued									
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L		<4	<4	<4	----	
EP-075G: Chlorinated Hydrocarbons									
Hexachlorobenzene (HCB)	118-74-1	4	µg/L		<4	<4	<4	----	
EP-066: Polychlorinated Biphenyls									
Total Polychlorinated biphenyls	----	1	µg/L		<1	<1	<1	----	
EP-080S: TPH(Volatile)/BTEX Surrogate								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**86.4**	**91.1**	**87.4**	----	
Toluene-D8	2037-26-5	0.1	%		**95.2**	**89.9**	**99.8**	----	
4-Bromofluorobenzene	460-00-4	0.1	%		**90.2**	**88.3**	**89.8**	----	
EP-074S: VOC Surrogates								Surrogate control limits listed at end of this report.	
Dibromofluoromethane	1868-53-7	0.1	%		**86.4**	**91.1**	**87.4**	**87.6**	
Toluene-D8	2037-26-5	0.1	%		**95.2**	**89.9**	**99.8**	**93.2**	
4-Bromofluorobenzene	460-00-4	0.1	%		**90.2**	**88.3**	**89.8**	**86.9**	
EP-075S: Acid Extractable Surrogates								Surrogate control limits listed at end of this report.	
2-Fluorophenol	367-12-4	0.1	%		**46.8**	**43.8**	**46.0**	----	
Phenol-d6	13127-88-3	0.1	%		**29.1**	**26.2**	**27.7**	----	
2.4.6-Tribromophenol	118-79-6	0.1	%		**103**	**79.6**	**93.9**	----	
EP-075T: Base/Neutral Extractable Surrogates								Surrogate control limits listed at end of this report.	
Nitrobenzene -d5	4165-60-0	0.1	%		**83.8**	**63.8**	**68.5**	----	
2-Fluorobiphenyl	321-60-8	0.1	%		**74.0**	**58.1**	**62.8**	----	
4-Terphenyl-d14	1718-51-0	0.1	%		**94.8**	**76.4**	**89.4**	----	
EP-066S: PCB Surrogate								Surrogate control limits listed at end of this report.	
Tetrachlorometaxylene	877-09-8	0.1	%		**83.2**	**78.5**	**90.3**	----	
Dibutylchlorendate	1770-80-5	0.1	%		**106**	**110**	**116**	----	

Laboratory Duplicate (DUP) Report

Matrix: WATER

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report				
				LOR	Unit	Original Result	Duplicate Result	RPD (%)
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)								
HK1113965-001	P-08	**EG036: Mercury**	7439-97-6	0.5	µg/L	<0.5	<0.5	0.0
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1844827)								
HK1113786-004	Anonymous	**C6 - C8 Fraction**	----	0.02	mg/L	<0.02	<0.02	0.0
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826)								
HK1113786-004	Anonymous	**meta- & para-Xylene**	108-38-3 106-42-3	10	µg/L	<10	<10	0.0
		Benzene	71-43-2	5	µg/L	<5	<5	0.0
		Toluene	108-88-3	5	µg/L	<5	<5	0.0
		Ethylbenzene	100-41-4	5	µg/L	<5	<5	0.0
		Styrene	100-42-5	5	µg/L	<5	<5	0.0
		ortho-Xylene	95-47-6	5	µg/L	<5	<5	0.0
EP-074B: Oxygenated Compounds (QC Lot: 1844826)								
HK1113786-004	Anonymous	**2-Propanone (Acetone)**	67-64-1	50	µg/L	<50	<50	0.0
		2-Butanone (MEK)	78-93-3	50	µg/L	<50	<50	0.0
EP-074E: Halogenated Aliphatics (QC Lot: 1844826)								
HK1113786-004	Anonymous	**Trichloroethene**	79-01-6	5	µg/L	<5	<5	0.0
		Tetrachloroethene	127-18-4	5	µg/L	<5	<5	0.0
		Methylene chloride	75-09-2	50	µg/L	<50	<50	0.0
EP-074G: Trihalomethanes (THM) (QC Lot: 1844826)								
HK1113786-004	Anonymous	**Chloroform**	67-66-3	5	µg/L	<5	<5	0.0
		Bromodichloromethane	75-27-4	5	µg/L	<5	<5	0.0
EP-074L: Methyl-tert-butyl Ether (QC Lot: 1844826)								
HK1113786-004	Anonymous	**Methyl tert-Butyl Ether (MTBE)**	1634-04-4	5	µg/L	<5	<5	0.0

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

Matrix: WATER

Method: Compound	CAS Number	Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
		LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)											
EG036: Mercury	7439-97-6	0.05	µg/L	<0.05	0.2 µg/L	99.0	----	85	115	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1831089)											
C9 - C16 Fraction	----	0.5	mg/L	<0.5	0.25 mg/L	71.0	----	17	170	----	----
C17 - C35 Fraction	----	0.5	mg/L	<0.5	0.5 mg/L	54.1	----	32	143	----	----
EP-071HK: Total Petroleum Hydrocarbons (TPH) (QC Lot: 1844827)											
C6 - C8 Fraction	----	0.02	mg/L	<0.02	0.15 mg/L	107	----	63	143	----	----
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826)											
Benzene	71-43-2	5	µg/L	<5	10 µg/L	90.1	----	63	113	----	----
Toluene	108-88-3	5	µg/L	<5	10 µg/L	86.3	----	66	115	----	----

Matrix: **WATER**

Method: Compound	CAS Number	Method Blank (MB) Report: LOR	Unit	Result	Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report: Spike Concentration	Spike Recovery (%): LCS	DCS	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EP-074A: Monocyclic Aromatic Hydrocarbons (MAH) (QC Lot: 1844826) - Continued											
Ethylbenzene	100-41-4	5	µg/L	<5	10 µg/L	84.4	----	70	103	----	----
meta- & para-Xylene	108-38-3 106-42-3	10	µg/L	<10	20 µg/L	83.0	----	67	114	----	----
Styrene	100-42-5	5	µg/L	<5	10 µg/L	78.4	----	61	111	----	----
ortho-Xylene	95-47-6	5	µg/L	<5	10 µg/L	73.7	----	69	108	----	----
EP-074B: Oxygenated Compounds (QC Lot: 1844826)											
2-Butanone (MEK)	78-93-3	50	µg/L	<50	100 µg/L	119	----	55	128	----	----
EP-074E: Halogenated Aliphatics (QC Lot: 1844826)											
Trichloroethene	79-01-6	5	µg/L	<5	10 µg/L	85.3	----	68	111	----	----
Tetrachloroethene	127-18-4	5	µg/L	<5	10 µg/L	78.2	----	55	122	----	----
EP-074G: Trihalomethanes (THM) (QC Lot: 1844826)											
Chloroform	67-66-3	5	µg/L	<5	10 µg/L	83.6	----	70	117	----	----
Bromodichloromethane	75-27-4	5	µg/L	<5	10 µg/L	78.8	----	70	113	----	----
EP-075B: Polyaromatic Hydrocarbons (PAHs) (QC Lot: 1831088)											
Naphthalene	91-20-3	2	µg/L	<2	5 µg/L	58.3	----	48	102	----	----
Acenaphthylene	208-96-8	2	µg/L	<2	5 µg/L	58.7	----	43	110	----	----
Acenaphthene	83-32-9	2	µg/L	<2	5 µg/L	60.6	----	45	107	----	----
Fluorene	86-73-7	2	µg/L	<2	5 µg/L	58.8	----	51	104	----	----
Phenanthrene	85-01-8	2	µg/L	<2	5 µg/L	67.7	----	60	107	----	----
Anthracene	120-12-7	2	µg/L	<2	5 µg/L	68.7	----	58	105	----	----
Fluoranthene	206-44-0	2	µg/L	<2	5 µg/L	75.4	----	67	105	----	----
Pyrene	129-00-0	2	µg/L	<2	5 µg/L	75.6	----	65	105	----	----
Chrysene	218-01-9	2	µg/L	<2	5 µg/L	77.5	----	68	114	----	----
Benzo(b) & Benzo(k)fluoranthene	205-99-2 207-08-9	4	µg/L	<4	10 µg/L	79.0	----	53	104	----	----
EP-075G: Chlorinated Hydrocarbons (QC Lot: 1831088)											
Hexachlorobenzene (HCB)	118-74-1	4	µg/L	<4	5 µg/L	63.1	----	52	110	----	----
EP-066: Polychlorinated Biphenyls (QC Lot: 1841089)											
Total Polychlorinated biphenyls	----	1	µg/L	<1	10 µg/L	99.8	----	49	147	----	----

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

Matrix: **WATER**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report: Spike Concentration	Spike Recovery (%): MS	MSD	Recovery Limits (%): Low	High	RPD (%): Value	Control Limit
EG: Metals and Major Cations - Filtered (QC Lot: 1842733)										
HK1113786-004	Anonymous	**EG036: Mercury**	7439-97-6	0.2 µg/L	90.0	----	75	125	----	----

Surrogate Control Limits

Sub-Matrix: **WATER**

Compound	CAS Number	Recovery Limits (%) Low	High
EP-080S: TPH(Volatile)/BTEX Surrogate			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-074S: VOC Surrogates			
Dibromofluoromethane	1868-53-7	86	118
Toluene-D8	2037-26-5	88	110
4-Bromofluorobenzene	460-00-4	86	115
EP-075S: Acid Extractable Surrogates			
2-Fluorophenol	367-12-4	21	100
Phenol-d6	13127-88-3	20	94
2.4.6-Tribromophenol	118-79-6	20	123
EP-075T: Base/Neutral Extractable Surrogates			
Nitrobenzene -d5	4165-60-0	35	114
2-Fluorobiphenyl	321-60-8	43	116
4-Terphenyl-d14	1718-51-0	33	141
EP-066S: PCB Surrogate			
Tetrachlorometaxylene	877-09-8	50	130
Dibutylchlorendate	1770-80-5	50	130