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Pacific Brands Limited

Report for 190 Dunmore Street
Wentworthville NSW

Phase 2 Environmental Site
Assessment

May 2011



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Executive Summary

Introduction

GHD Pty Ltd (GHD) was commissioned by Pacific Brands Limited (Pacific Brands) to undertake a Phase 2 Environmental Site Assessment (ESA) at 190 Dunmore Street, Wentworthville, NSW (herein referred to as the site). It is understood that the site is proposed for residential redevelopment, which will be subject to a Site Audit.

GHD completed a Phase 1 Contamination Assessment in 2009 (GHD 2009) which identified a number of potential sources of contamination at the site, mainly associated with historic filling and site infrastructure (e.g. transformers, former underground fuel storage tanks, former boiler house). Results from the limited sampling program undertaken by GHD in 2009 did not identify widespread, gross contamination of soil or groundwater at the site. However, it was noted that the sampling pattern and density for the Phase 1 assessment did not comply with the EPA minimum sampling requirements.

The Phase 2 ESA was designed to augment information collected as part of the Phase 1 investigation in order to comply with NSW Environment Protection Authority (EPA) minimum sampling densities and reduce the uncertainty associated with identified site contamination. This report presents the findings of the Phase 2 assessment and incorporates data obtained from the 2009 investigation.

This Executive Summary is subject to, and must be read in conjunction with, the limitations set out in Section 10 of this report and the assumptions and qualifications contained throughout this report.

Objective

The objective of the Phase 2 ESA was to provide further information regarding the contamination status of the site to assist in preliminary planning of potential redevelopment options, while acknowledging that the full extent of contamination will only be known following demolition of existing site structures and further detailed investigations where required.

The ESA relates specifically to soil and groundwater conditions and does not include built infrastructure (above and below ground).

Scope of Work

The scope of work undertaken by GHD included the following:

- Soil sampling at 63 locations (34 test pits and 29 hand auger locations) in addition to the 20 sample locations undertaken in the 2009 investigation (83 soil sample locations in total for inclusion in this report).
- Installation of four groundwater monitoring wells in addition to the five monitoring wells installed in 2009 (nine monitoring wells in total). Surveying and sampling of all monitoring wells; and
- Collation, analysis and assessment of sampling results and preparation of this report.

Summary of Key Findings

- Fragments of asbestos cement (AC) were identified in fill material (mostly reworked natural clay and rock) along the eastern portion of the site.



- Rubble including brick material and AC fragments was identified in fill material within the central staff car park. This is understood to be waste material from demolition of the old boiler house and was used to fill a depression (former creek) in this area. Analytical results were generally below adopted criteria in the fill material. The geotechnical characteristics of the fill material and the management of identified AC fragments will require consideration prior to site development.
- A horizon of black impacted soil and ash approximately 800 mm thick was identified in the south western corner of the site (TP9) and is believed to be waste material from the former incinerator at this location. The area of this impacted soil was approximately 10 x 10 m. Analytical results were below the adopted criteria however this may represent an aesthetic issue.
- Soil Analytical Results
 - Metals concentrations (mainly arsenic, manganese, nickel and zinc) were reported above Ecological Investigation Levels (EILs) across the site. These were generally below Health Investigation Levels (HILs) for a residential setting and are believed to be mostly indicative of natural background concentrations in the clay and weathered rock or associated with crushed rock (road base or sub-slab).
 - Elevated metals concentrations identified at WS6 (arsenic, copper and zinc) and TP6 (manganese and cobalt) may be associated with anthropogenic sources (light industrial activity, historic filling) but do not appear to be laterally or vertically extensive.
 - A concentration of 7 mg/kg for Arochlor 1254 was reported in one sample, WS6/0-0.1, possibly attributable to an historic surface spill of oil containing Polychlorinated Biphenyls (PCBs) associated with transformers adjacent to this sample location. While this concentration was limited to the surface soil at this location and below the adopted criteria, further delineation of PCB concentrations in near surface soils may be required prior to re-development of this part of the site subject to the requirements of the site auditor.
 - All other organic compounds tested were below the laboratory limit of reporting (LOR) for all samples analysed.
 - Based on the analytical results, the soil at the site would generally be classified “General Soil Waste” for off-site disposal in accordance with NSW EPA Waste Classification Guidelines. The natural bedrock and weathered clay at the site may be suitable for classification as “Virgin excavated natural material”. This is a preliminary classification only and depending on the location of proposed excavation and volumes, further classification sampling is likely to be required to satisfy landfill and NSW EPA requirements. Further sampling at the site may reveal the presence of material classified as either Restricted Solid Waste or Hazardous Waste.
- Groundwater analytical results
 - The groundwater quality in the shale aquifer beneath the site is moderately saline with limited beneficial uses. Fresher groundwater was identified in monitoring wells targeting the perched water system within the fill beneath the central car park area. This is considered perched water of limited beneficial use and not representative of a regional aquifer resource.
 - Concentrations of heavy metals above the adopted ecosystem protection criteria (cadmium, copper, manganese, nickel, selenium and zinc) were reported in groundwater across the site and are mostly attributable to naturally elevated background concentrations. Some elevated concentrations of metals in the perched water within the central car park area may be attributable to historic filling in this area (rubble and reworked natural material). This is not considered a



significant issue as concentrations are likely to decrease considerably prior to discharge to the nearest receiving water body due to natural attenuation along the flow path.

- Trichlorethylene (TCE) and vinyl chloride (VC) were reported above the laboratory LOR in monitoring well GW1 suggesting that chlorinated solvents may have been deposited in the fill material in the central car park area. While this contamination appears to be generally localised, further assessment is likely to be required as part of any future redevelopment in order to quantify the potential human health risk that it may pose, and to determine appropriate site management or remediation response if warranted.
- With the exception of some minor TPH concentrations at GW1, all other organic compounds tested were below laboratory LOR for all samples analysed.

Conclusions

The investigation results indicated that the site is not subject to gross, widespread contamination. There are localised areas where elevated concentrations of contaminants and/or AC fragments have been identified. These areas may require further vertical and lateral delineation once site infrastructure has been removed.

Overall, the results of soil and groundwater sampling indicated that contaminant concentrations were generally within acceptable limits for a residential setting, with the exception of some areas that are likely to require further investigations subject to the opinion of the appointed site auditor.

In particular, the following items may require further consideration prior to or during re-development

- Management or removal of AC fragments in fill material along the eastern portion of the site and within the central car park area;
- Further assessment of PCBs in surface soils in the vicinity of former transformer stations, such as identified at WS6;
- Elevated metals concentrations at WS6 (arsenic, copper and zinc) and TP6 (manganese and cobalt) may require further delineation depending on the development plan at these locations;
- Management or removal of any near surface soils containing elevated heavy metals concentrations including crushed rock and road/slab base material;
- Management or removal of any material that may represent an aesthetic issue for site redevelopment, such as the black impacted soil and ash identified at test pit TP9 or the fill material within the central car park (rubble from demolition of old boiler house); and
- Further assessment of the chlorinated hydrocarbon contamination in groundwater identified at monitoring well GW1.

The management and disposal cost of waste soils should be taken into consideration for site re-development. Based on the results of this assessment the soil / fill material at the site would generally be classified “General Solid Waste”, “Special Waste – Asbestos Waste” or “Virgin excavated natural material” depending on where the excavation occurs. This preliminary classification is subject to further testing of the waste material to satisfy NSW EPA and landfill requirements, and during this process there is the potential for other classifications of materials to be identified.

Some areas of the site were not accessible for sampling (portions of Building 1 and 3, administrative offices). While contamination in these areas is not expected (based on site history information and field



observations), there is the potential for contamination to be identified in these areas following demolition of these structures.

This report should be read in full and no excerpts are taken to be representative of the findings of this Report.



1. Introduction and Objectives

1.1 Introduction

GHD Pty Ltd (GHD) was commissioned by Pacific Brands to undertake a Phase 2 Environmental Site Assessment (ESA) at 190 Dunmore Street, Wentworthville, NSW (herein referred to as the site). The site location is shown on Figure 1.

The site is approximately 8 ha and has been used for industrial purposes including textiles manufacturing since the 1920s. A dye works was located on the site since the 1980s. The site is currently occupied by warehouses, disused industrial buildings, administration buildings and car parks.

It is understood that the site is proposed for residential redevelopment, which will be subject to an environmental audit.

A previous environmental investigation was undertaken by GHD on the site in 2009¹ and included a Phase 1 contamination assessment with limited soil and groundwater sampling. The Phase 1 assessment identified a number of potential sources of contamination at the site, mainly associated with historic filling at the site and site infrastructure (e.g. transformers, former underground fuel storage tanks, former boiler house). Results from the limited sampling program undertaken by GHD in 2009 did not identify widespread, gross contamination of soil or groundwater at the site. However, it was noted that the sampling pattern and density for this preliminary study did not comply with the EPA minimum sampling requirements.

The Phase 2 assessment was designed to augment information collected as part of the Phase 1 study in order to comply with NSW Environment Protection Authority² (EPA) minimum sampling densities and significantly reduce the uncertainty associated with identified site contamination.

1.2 Objective

The objective of the Phase 2 ESA was to provide further information regarding the contamination status of the site to assist in the planning of potential redevelopment options, while acknowledging that the full extent of contamination will only be known following demolition of existing site structures and further detailed investigations where required.

The ESA relates specifically to soil and groundwater conditions and does not include built infrastructure (above and below ground).

1.3 Scope of Work

The scope of work undertaken by GHD included the following:

- Preliminaries - review previous reports, organising sub-contractors, preparation of health safety and environmental management plan, preparation of a sampling and analysis plan;
- Utility clearance of all intrusive (soil and groundwater) investigation locations;

¹ GHD (June 2009), *Report for 190 Dunmore Street, Wentworthville, NSW - Contamination Assessment*, prepared for Pacific Brands

² In regulatory matters for environment protection, the NSW Office of Environment and Heritage (OEH) acts under the powers of the statutory Environment Protection Authority (EPA).



- Concrete coring of hand auger locations within building footprints;
- Soil sampling at 63 locations (34 test pits and 29 hand auger locations) in addition to the 20 sample locations undertaken in the 2009 investigation (83 soil sample locations in total for inclusion in this report).
- Installation of four groundwater monitoring wells in addition to the five monitoring wells installed in 2009 (nine monitoring wells in total). Surveying and sampling of all monitoring wells; and
- Collation, analysis and assessment of sampling results and preparation of this Phase 2 ESA report.



2. Site Information

2.1 Site Location

The site location is shown on Figure 1. Further details are provided in Table 1.

Table 1 Site Location Summary

Street Address	190 Dunmore Street, Wentworthville, NSW
Title Identifier	Lot 1 – DP735207
Local Government Area	Holroyd City Council
Current Land use	Light Industrial
Surrounding Land Use	Residential

2.2 Site Layout

The current layout of the site is shown on Figure 1. The main features are summarised below:

- Administrative buildings (Office A, Office B and Office C) which are currently in use;
- Building 1 which is mostly occupied by disused former textiles manufacturing areas. The south western portion is currently used for warehousing;
- Building Group 2 which is mostly occupied by disused former textiles manufacturing and storage areas;
- Building 3 which is currently used for clothing retail (north- eastern portion), police uniform storage (south-eastern portion) and printing (north western portion). The former textiles manufacturing area in the south-western portion of the building is currently not used; and
- Sealed car parking facilities that cover much of the outdoor areas with parking for approximately 360 passenger vehicles.

2.3 Site Characterisation

Details of physical site characteristics are provided in Table 2.



Table 2 Site Characteristics

Site Area	<p>The site occupies an area of approximately 8 hectares (ha).</p> <p>Buildings cover approximately 60% (4.75 ha) of the site.</p>
Topography	<p>The site generally slopes from the west to the east.</p> <p>The site slopes from a high point on the western boundary to a low point below a large fill bank on the eastern boundary. Development of the site has involved a 'cut and fill' to level the site beneath the buildings. The cut is pronounced at the western end of Building 1 with a 10 to 15 metre excavation wall. The eastern fill embankment is approximately 8-10 m high in the south eastern corner of the site.</p> <p>The elevation of the site ranges from approximately 66.5 mAHD in the south-west corner to 54 mAHD in the north-east corner with the low point of the site at the base of the south eastern embankment (approximately 45 mAHD).</p>
Surface Cover	<p>The site is predominately sealed and covered by bitumen, concrete and large manufacturing and retail buildings with some landscaped and grassed areas along the western, southern and eastern boundaries.</p>
Geology	<p>The <i>1:100,000 Penrith (9030), Geological Series Sheet</i>³ identified the underlying geology at the site and immediate surrounds as Ashfield Shale comprising dark grey to black claystone – siltstone and fine sandstone – siltstone laminate. This was confirmed by drilling on-site which encountered natural clay (weathered rock) and shale bedrock across the site. Across the centre of the site where the previous slope had been cut as part of site levelling, shale rock was encountered at less than 1 m below the ground surface. The south-western portion of Building 1 was found to be slab on rock (refer Figure 2).</p>
Hydrogeology	<p>The NSW Assessment of Pollution Risk Map 1:2,000,000⁴ indicates that groundwater in the vicinity of the site is typically saline with a TDS over 14 000 mg/L and “<i>would be considered unsuitable for domestic, irrigation and / or stock uses</i>”. The map indicates that the site is likely to be underlain by shale and siltstone sedimentary formations and that the potential for groundwater movement is low.</p> <p>A search of Natural Resource Atlas (Department of Planning) records in May 2009, did not identify any existing groundwater wells located within an approximate one-kilometre radius of the site.</p>
Soil	<p>The <i>1:100,000 Penrith (9030) Soil Landscape Series Sheet</i>⁵ identified the underlying soils at the site as Blacktown type, comprising shallow to moderately deep hard setting mottled red brown podzolic soils on crests grading to yellow podzolic soils on lower slopes and drainage lines. This was confirmed by site investigations, which identified varying depths of fill overlying firm to stiff red brown and grey mottled firm to stiff residual clay with shale and ironstone inclusions.</p>

³ Department of Minerals and Energy, Geological Survey of NSW, 1991.

⁴ Department of Water Resources, NSW (1987)

⁵ Soil Conservation Service of NSW, 1991.



Surface Water

The majority of surface run-off on the site would run across sealed surfaces into the internal stormwater collection system and concrete stormwater detention basin located in the south east corner of the site.

The closest water body to the site is Coopers Creek, which is located approximately 750 east of the site. Coopers Creek is a tributary of Toongabbie Creek and the Parramatta River.



3. Summary of Phase 1 Assessment

A preliminary Contamination Assessment was undertaken by GHD in 2009⁶. A summary of the key findings from the Phase 1 Assessment is provided below.

3.1 Site History

The site has been used for industrial purposes including textiles manufacturing since the 1920s.

A dye works was located on the site since the 1980s and ceased operation in Feb 2010.

The buildings in the northern half of the site comprising administrative buildings (Offices A, B & C) former textiles manufacturing (Building Group 2 and Building 3) and storage (Store A and Store D) were mostly constructed circa 1920's.

Building 1 used for textiles manufacturing and warehousing was constructed in the 1960s and was extended in 1996.

3.2 NSW DECC Registers

3.2.1 Contaminated Sites Register

The NSW Department of Environment and Climate Change (DECC) Contaminated Sites Register lists both former and current contaminated sites deemed to pose a 'Significant Risk of Harm' (SRoH) under the provisions of the CLM Act. The search conducted on 27 May 2009 did not identify the site or any registered sites within a 1 km radius of the site.

3.2.2 POEO Licence Register

The NSW DECC Protection of the Environment Operations (POEO) Licence Register identifies premises that are licensed for certain activity types under the POEO Act. The search conducted on 27 May 2009 identified two licensed properties within approximately one-kilometre radius of the Site as follows:

- Joseph Nader located at 145 Wentworth Avenue, Wentworthville, approximately 350 m north east of the site. The licence is current and listed under the activity of Waste Transporters – Hazardous / Industrial; and
- Holroyd City Council (Wentworthville Swimming Centre) located on Dunmore Street, approximately 600 m east of the site. The license was surrendered on 24 July 2001, and was formerly under the activity type of Miscellaneous Licensed Discharges to Waters (at any time).

Both sites are considered either down or cross hydraulic gradient of the site in terms of groundwater flow (refer Section 7.1) and are considered unlikely potential sources of off-site contamination that could have migrated to the site.

The Pacific Brands site was also listed on the register as having formerly held a licence of type 'Fuel Burning Equipment', which was surrendered on 3 May 2000. This is likely to have been associated with former site boilers.

⁶ GHD (June 2009), *Report for 190 Dunmore Street, Wentworthville, NSW - Contamination Assessment*, prepared for Pacific Brands



3.2.3 Potential Sources of Contamination

The following key potential sources of contamination were identified in the Phase 1 preliminary contamination assessment. The approximate locations of key features are shown on Figure 2.

Table 3 Potential Sources of Contamination

Description	Contaminants of Interest
Textiles manufacturing, general light industrial activity (Building 3, Building Group 2, Building 1 and surrounds)	Chlorinated and non-chlorinated organic solvents (PCE, TCE and benzene and toluene) Soaps and detergents (alkylbenzene) Organic compounds (including phosphates and ammonia)
Former Creek Area – this area is believed to have been filled, at least partially, with solid waste from demolition of the former boiler house. Potential disposal of boiler ash in this area.	metals, TPH, PAH, asbestos, sulphates
Former Creek Area – Historical dumping of water soluble yarn lubricating wax on sloping land leading towards the bank of the former creek.	Based on discussions with Pacific Brands personnel, the wax is a natural product produced during cotton spinning and does not contain toxic chemicals.
Potential asbestos fragments in unsealed areas in the smoking area (adjacent to central car park) and potentially within the fill matrix.	Asbestos
Former coal powered boilers and oil drum storage.	metals, TPH, PAH
Six former underground storage tanks (four east of boiler house and two between boiler house and substation).	TPH, BTEX
Incinerator, the site formerly had a POEO licence for fuel burning, likely associated with coal fired boilers.	metals, TPH, PAH
Dye house and spills.	Dyes (basic, acid);
Diesel fuel storage in the pump house (anecdotal evidence of a small diesel spill in this area).	TPH, BTEX
Sodium hydroxide tank (chemical store)	pH
Transformer substation capacitors	PCBs, TPH
Flammable liquid store	Hydrocarbons from fuels (TPH, BTEX);



Description	Contaminants of Interest
Filling within the central car park area (understood to be filling of a depression associated with a former drainage line).	Metals, Asbestos
Filling along the eastern embankment	Metals, Asbestos
Garden Areas around the site boundary and Weed Control	Pesticides (including OCPs, naphthalene, dieldrin)

Note (1) Heavy Metals (arsenic, antimony, beryllium, cadmium, chromium, copper, cobalt, lead, mercury, molybdenum, nickel, tin, selenium, zinc), Total Petroleum Hydrocarbons (TPHs), Monocyclic Aromatic Hydrocarbons (MAHs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs).

3.3 Summary of Potential Contamination Sources

The preliminary Phase 1 Contamination Assessment concluded that ground contamination at the site may result from the accidental spillage of chemicals in storage areas or during the various stages of manufacturing yarn, making dyes and dyeing textiles. Further off-loading areas, storage tanks, drum storage areas, and surface water drains may be considered potential areas of contamination. Older or upgraded works may have redundant underground tanks or pipelines containing chemical residues or wastes. Effluents from washing fibres, yarn or fabric are normally discharged to the foul sewer but may be lost to the surrounding ground if the sewer leaks.

Reworked natural materials have been used to make up ground levels on site and may contain solid waste inclusions (e.g. bricks, Asbestos cement sheeting, etc). Solid wastes may have been disposed of in on-site landfills, in particular the former creek area (current central car park area), which is believed to have been partially filled with waste material from demolition of the former boiler house.

Where asbestos has been used in buildings or pipework, decommissioning or demolition may result in local contamination. Asbestos pipework and boiler ash (containing heavy metals and sulphates) may have been disposed of in on-site landfills. Any organic infill also has the potential to generate landfill gases, principally methane and carbon dioxide.

Contamination may also occur from PCBs where transformers or capacitors have been refilled or decommissioned.



4. Site Investigation Methodology

4.1 Intrusive Soil Investigation

4.1.1 Soil Sampling Plan

The Australian Standard AS4482.1 2005 provides guidance on the minimum number of grid sample locations required depending on the size of the property and suggests that the sampling of a potentially contaminated site should be undertaken on both a systematic grid based system (to test for unknown sources of contamination) and a judgemental (targeted) sampling pattern (to test for known potential sources of contamination). Based on a land area of 8 ha, the AS4482.1-2005 recommends a minimum of 88 sample locations (11 samples per ha) across the site. The number of soil sampling locations for the Phase 1 and Phase 2 assessment is summarised below:

- Phase 1 (GHD 2009) – Soil sampling at 20 target locations including 11 window sample and 9 borehole locations;
- Phase 2 (GHD 2011) - Soil sampling at 63 grid locations (30 x 30 m grid) including 34 test pits and 29 hand auger locations.

The total number of soil sample locations was 83, which is marginally below the recommended density of 88. This was due to access constraints within the administration building and warehouse areas within Building 3. Due to access constraints, samples could not be collected within the south-western portion of Building 1 (currently used for warehousing), however this area was inferred to be slab on rock (refer Figure 2) and soil sampling in this area would likely have been limited to sub-slab crushed rock material. Overall, the sampling program was considered adequate to meet the objectives of the assessment.

Soil sample locations are shown on Figure 2. A summary of the combined (Phase 1 targeted and Phase 2 grid based) soil sampling and analysis program is provided in **Table 4**.



Table 4 Soil Sampling and Analysis Plan

Site Area	No. Locations	No. samples tested	Metals	TPH / BTEX	PAHs / Phenols	VOC / SVOC	PCB	Pesticides	Asbestos	Inorganics
Phase 1 Target Locations	20	30	27	27	27	0	27	0	17	0
Phase 2 Grid Locations	63	105	96	77	72	31	24	37	10	16
TOTAL	83	135	123	104	99	31	51	37	27	16

Note (1) Heavy Metals (arsenic, antimony, beryllium, cadmium, chromium, copper, cobalt, lead, mercury, molybdenum, nickel, tin, selenium, vanadium, zinc), Total Petroleum Hydrocarbons (TPHs), Monocyclic Aromatic Hydrocarbons (MAHs), Polycyclic Aromatic Hydrocarbons (PAHs), Polychlorinated Biphenyls (PCBs). Volatile Organic Carbons (VOCs), Semi-volatile Organic Carbons (SVOC), Inorganics (sulphate, sulfur, cyanide, nitrate, nitrite)



4.1.2 Sampling Methodology

Soil sampling was conducted using GHD Quality Assurance and Quality Control (QA/QC) procedures, which are in accordance with NSW EPA (1995), NEPC (1999) and AS4482.1 2005 guidelines. The following soil sampling techniques were used:

- *Solid auger borehole drilling (2009)* – grab samples were taken directly from the augers with care taken to scrape off the outer layer of soil from the auger flight in order to minimise cross contamination and obtain a representative sample of the target interval.
- *Window sampler (2009)* – A hand held percussion instrument was used to collect undisturbed one metre length cores of the soil from which grab samples were taken. The core barrel was decontaminated between each sample interval.
- *Hand Auger Locations (2011)* - In order to comply with Pacific Brand site OH&S policy, no petrol driven equipment was used within buildings. All sample locations within buildings were undertaken using an electric concrete corer to allow access to the sub slab soils followed by sampling using a hand auger.
- *Test Pits (2011)* – A small excavator was used in outdoor areas (where access allowed) to excavate narrow trenches (test pits) to the required depth. This method allowed a better visual assessment of soils in-situ relative to boreholes.

Borehole and test pit logs are provided in Appendix A.

Generally, a minimum of three depth samples (0.1 m, 0.5 m and 1.0 m) were collected at each location. Deeper samples were collected at selected locations where site history information or structures (such as former underground storage tanks) indicated the potential for contamination at greater than 1 m depth, or where extensive thickness of imported fill material was encountered (i.e. eastern site embankment). Where fill was encountered at depths greater than 1.0 m, samples were generally collected at 1 m intervals.

All soil samples were screened for Volatile Organic Compounds (VOCs) using a calibrated Photo-ionisation Detector (PID). The samples were transferred to an ice filled cool box for sample preservation prior to and during shipment to the sampling laboratory. A chain of custody form was completed, and forwarded with the samples to the testing laboratory.

Soil samples were submitted to NATA accredited laboratories for environmental analysis as per the proposed sampling plan presented in **Table 4**. Quality control (QC) samples will also be collected in accordance with GHD quality assurance (QA) procedures.

4.2 Phase 2 – Intrusive Groundwater Investigation

4.2.1 Groundwater Monitoring Well Network

The combined 2009 and 2011 groundwater investigations involved the drilling, installation and sampling of nine groundwater monitoring wells. The groundwater monitoring well network is shown in Figure 2. Five monitoring wells were installed as part of the 2009 investigation (GW1, GW2, GW4, BH4 and BH5) and an additional four installed in 2011 (GW6, GW7, GW8 and GW9). *Note: Monitoring wells were not installed at GW3 and GW5 (i.e. soil sample boreholes only).*



The monitoring wells were drilled to depths ranging from 8 to 19 m bgl. Monitoring wells targeting the regional water table bedrock aquifer (GW4, GW6, GW7, GW8 and GW9) were installed at depths ranging from 13.1 to 19 m bgl. Monitoring wells targeting perched water in fill material within the central car park area were shallower with depths ranging from 5.2 to 8.5 mbgl. Monitoring well GW1 was partially screened across both fill and underlying weathered bedrock.

The groundwater monitoring wells were installed and developed in accordance with the *Minimum Construction Requirements for Water Bores in Australia* (Land and Water Biodiversity Committee, 2003). All wells were surveyed for elevation and location to allow determination of groundwater flow direction.

Groundwater Monitoring Well construction logs are provided in Appendix A. Monitoring well details are summarised in **Table 5**.



Table 5 Groundwater Monitoring Well Details

Well ID	Installation Date	Total Depth (m)	Screen Interval	Target Formation	Easting (MGA94)	Northing (MGA94)	Ground Level Elevation (mAHD)	TOC* Elevation	SWL (mbtoc) 6/4/2011	SWL (mAHD) 6/4/2011
BH4	6/05/2009	8.2	2.2-8.2m	Fill	311179.86	6257467.39	54.26	54.19	4.91	49.28
BH5	6/05/2009	8.5	5.5-8.5m	Fill	311203.31	6257450.53	54.23	54.15	4.95	49.2
GW1	6/05/2009	8.5	4.4-8.5m	Fill / Rock	311137.63	6257469.46	54.48	54.39	4.58	49.81
GW2	6/05/2009	5.9	1-5.9m	Fill	311108.35	6257461.77	54.47	54.38	1.65	52.73
GW4	5/05/2009	15.5	6.5-15.5m	Rock	311176.11	6257310.32	54.51	54.45	8.51	45.94
GW6	25/03/2011	19	13-19m	Rock	310932.81	6257353.26	66.41	66.25	13.63	52.62
GW7	25/03/2011	18	12-18m	Rock	310999.79	6257494.7	61.03	60.94	9.31	51.63
GW8	25/03/2011	14.9	8.9-14.9m	Rock	311025.75	6257305.15	59.19	59.12	8.92	50.2
GW9	29/03/2011	13.1	10.1-13.1m	Rock	311223.87	6257553.8	54.17	54.07	7.16	46.91

* TOC – Top of Casing



4.2.2 Groundwater Sampling

Groundwater samples were collected from all nine monitoring wells (five existing and four new wells) using GHD sampling procedures, which are in accordance with relevant NSW EPA approved guidelines. The wells were purged and sampled using low density poly-ethylene tubing coupled to a Sample-Pro Micropurge ('low flow') pump system. The low flow pump provides an appropriate method for collection of representative samples for the required analytes and is recognised by the NSW EPA as best practice for groundwater sampling.

Field parameters measured during purging included temperature, pH, conductivity, dissolved oxygen and redox potential. Samples were collected upon stabilisation of field parameters in accordance with EPA sampling guidelines.

Groundwater sampling field sheets are provided in Appendix B.

Primary samples were collected from each monitoring well for the analysis shown in Table 6. QA/QC samples were collected in accordance with GHD QA procedures.

Table 6 Groundwater Analysis

Item	Number of Samples	Analysis
Monitoring Well Sample	9	5 x Environmental Screen 4 x Heavy Metals, TPHs, BTEX, VOCs, Ammonia, TDS
QC		
5% Blind Samples	1	Heavy Metals, TPHs, VOCs, Ammonia
5% Field Splits Samples	1	Heavy Metals, TPHs, VOCs, Ammonia
Rinsate Blanks	1	Environmental Screen
Trip Blanks	1	BTEX
TOTAL	13	

4.3 Quality Assurance and Quality Control (QA/QC)

A data validation program, including the collection and analysis of quality control samples, was conducted to determine the suitability of the data for use in this assessment. This included the collection of field split, blind duplicate, rinsate blank and trip blank samples in accordance with NSW EPA (1995), NEPC (1999) and AS4482.1 2005 guidelines.



5. Assessment Criteria

5.1 Guidelines

In accordance with Section 105 of the Contaminated Land Management Act 1997 (CLM Act), the NSW EPA has approved a number of guidelines for use by consultants and site auditors in assessing and managing contaminated sites. The assessment was undertaken in general accordance with the following guidelines produced or endorsed by the NSW EPA:

- NSW EPA (1995), "*Contaminated Sites: Sampling Design Guidelines*";
- NSW EPA (1997), "*Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*";
- NSW EPA (1999), "*Contaminated Sites: Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report*";
- NEPM (1999), "*National Environment Protection (Assessment of Site Contamination) Measure*", National Environment Protection Council (NEPC);
- NSW EPA DEC (2007), "Guidelines for the Assessment and Management of Groundwater Contamination";
- The Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites (ANZECC, January 1992); and
- Australian Standard AS4482.1 2005 (Guide to the investigation and sampling of sites with potentially contaminated soil).

5.2 Assessment Criteria (soil)

5.2.1 Health Based Criteria

In considering future activities on site and potential beneficial uses the NSW EPA recommends the use of the "*National Environment Protection (Assessment of Site Contamination) Measure*" (NEPM), 1999. These guidelines recommend ecological investigation levels (EILs) and health investigation levels (HILs) for various chemicals of concern.

With regard to HILs, numerous exposure settings (A, B, C, D, E and F) are provided in the NEPM according to the current or proposed land use. The uses range from low-density residential settings to commercial/industrial settings, as summarised below:

- **Setting A:** 'Standard' Residential with garden/accessible soil (home-grown produce contributing less than 10% of vegetable and fruit intake; no poultry): this category also includes children's day care centres, kindergartens, pre-schools and primary schools.
- **Setting B:** Residential with substantial vegetable garden (contributing 10% or more of vegetable and fruit intake); and/or poultry providing any egg or poultry intake.
- **Setting C:** Residential with substantial vegetable garden (contributing 10% or more of vegetable and fruit intake); poultry excluded.



- **Setting D:** Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high rise apartments and flats.
- **Setting E:** Parks, recreational open space and playing fields, includes secondary schools.
- **Setting F:** Commercial/Industrial; includes premises such as shops and offices as well as factories and industrial sites. It is assumed that 30 years is the duration of exposure.

Given that the site is proposed for residential development, Setting A (herein referred to as HIL A) has been adopted for the purposes of this assessment.

Where EILs have not been specified in the NEPM, the “*Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites*” published by ANZECC/NHMRC (1992) have been referred to. Parameters in the ANZECC/NHMRC guidelines are based on human health and environmental considerations. In accordance with the procedures outlined in this document, analytical results are initially compared with ANZECC/NHMRC Environmental Investigation B levels (ANZECC B). Contamination concentrations reported above the ANZECC B levels typically require further investigation and/or consideration, but do not necessarily present an environmental or health risk.

For some contaminants (including TPH C₆-C₉) for which no EIL or HIL is provided, reference was made to the sensitive land use threshold provided in the NSW EPA (1994), “*Guidelines for Assessing Service Station Sites*”.

5.2.2 Asbestos in soil

The NSW EPA has effectively withdrawn all policy relating to asbestos in soil, and as such there is currently no NSW EPA or DECC endorsed policy or guideline regarding what constitutes an ‘acceptable’ level of asbestos in soil. WorkCover NSW ‘*Working with Asbestos*’ (2008) notes that under NSW OHS legislation, material that contains asbestos is referred to as either ‘friable’ or ‘bonded’. The following definitions have been provided (WorkCover, 2008):

Friable asbestos is any material that contains asbestos and is in the form of a powder or can be crumbled, pulverised or reduced to powder by hand pressure when dry. Asbestos cement products that have been subject to weathering are considered to be friable.

Bonded asbestos is any material that contains asbestos in a bonded matrix.

5.3 Assessment Criteria (Groundwater)

5.3.1 ANZECC Water Quality Guidelines

The ANZECC 2000 guidelines are approved as guidelines under Section 105 of the *Contaminated Land Management Act 1997* as of 6 December 2001.

The NSW DECC recommends that when assessing contamination of groundwater, consideration needs to be given to the impact of any contaminants to the beneficial uses or resources of the groundwater. The beneficial uses of groundwater may include providing recharge to rivers, lakes, bays, being a source of water for drinking, irrigation and industrial uses.

For the purpose of this assessment, groundwater quality will be compared to the criteria outlined in the *Australian and New Zealand Guidelines for Fresh and Marine Water Quality ANZECC / ARMCANZ 2000 (ANZECC 2000)*. For the site, the nearest potential receiving freshwater ecosystem is Coopers



Creek, which is considered “Slightly to Moderately Disturbed” and a protection level of 95% has been adopted for the assessment of groundwater contamination.



6. Assessment of Soil Contamination

6.1 Field Observations

Soil sample locations are shown on Figure 2. A description of lithology encountered at each location, including samples collected and PID readings, is presented in the borehole and test pit logs provided in Appendix A.

The soil profile comprised varying levels of fill overlying natural clay. The natural clay generally comprised firm to stiff, red brown and grey mottled clay (regolith) underlain by weathered bedrock comprising inter-beds of grey shale and fine sandstone. The bedrock became fresher with depth. In areas where the previous slope had been cut as part of site levelling, shale and fine sandstone rock was encountered at less than 1m below the ground surface.

Field observations of the soil profile in different portions of the site is summarised below:

- **South West** (TP1 – TP6) – This is the high point of the site with a 2-3 m high mound of fill material, predominantly comprising reworked natural clay and rock with minor amounts of inert waste materials (crookery, metal, plastic).
- **South West** (TP9) - A horizon of black impacted soil approximately 800 mm thick was identified in the south western corner of the site in test pit TP9 (refer Photo 1) and is believed to be waste material from the former incinerator at this location. The area of this impacted soil was approximately 10 x 10 m.
- **Western Portion** (TP10 – TP14, HA6, TP45) – Topsoil underlain by natural clay. No visual signs of contamination or anthropogenic filling.
- **Southern Car park** (TP7, TP8, TP15 – TP25) - Crushed rock road base to approximately 0.25 mgl underlain by natural clay. No observed signs of contamination.
- **Building 1** – Concrete slab (0.1 to 0.25 m thick) underlain by approximately 0.1 to 0.2 m of crushed rock fill material in turn underlain by sandy clay and clay fill (this appeared to be consistent with the natural clay on the site that had been reworked and compacted). No observed signs of contamination.
- **Eastern Embankment** (TP25, TP28-TP35) - The eastern fill embankment runs for nearly the entire length of the eastern site boundary and appears to have been created by 'cut and fill' levelling of the site. The fill material predominately comprised reworked natural clay, sandy clay and rock with minor quantities of inert waste identified (wood, steel, plastic). Fragments of asbestos cement (AC) were identified at locations TP25, TP30, TP31, TP32 and TP33 at depths ranging from 0.1 m (TP33) to 2 m (TP31 to TP33). Photo 2 shows some examples of the AC fragments identified at TP30, where the highest quantity of fragments was identified.
- **Central Car Park Area** - Rubble including brick material and AC fragments was identified in fill material within the central staff car park at location TP40 (refer Photo 3). This is understood to be waste material from demolition of the old boiler house that was used to fill a depression (former creek) in this area. AC fragments are also reported to have been previously identified by Pacific Brands at the surface in the grassed area adjacent to the western edge of the central car park area. Analytical results for contaminants of interest were generally below the adopted criteria in the fill material.

PID readings were generally low indicating an absence of volatile organic compounds (VOCs) in the soil samples collected. This was confirmed by laboratory tests discussed below. The highest PID reading of 105 ppm was recorded in sample HA05/0.25. Laboratory testing of this sample reported concentrations of volatile and semi-volatile compounds below laboratory LOR.



Photo 1 – Black Horizon at TP09



Photo 2 – Asbestos Cement Fragments at TP30



Photo 3 – Rubble at TP40



6.2 Soil Analytical Results

The analytical results of samples obtained and analysed from the site are provided in Table C1, Appendix C. Laboratory reports are provided in Appendix D.

The results for key contaminants of concern are discussed below.

6.2.1 Heavy Metals

Elevated concentrations of metals (including arsenic, cadmium, cobalt, copper, manganese, nickel, vanadium and zinc) reported above Ecological Investigation Levels (EILs) are summarised in **Table 7**. These concentrations were generally below the adopted Health Investigation Level (HILs).

Nickel concentrations above EILs were also reported in a number of samples. These were collected from slab or road base materials and the nickel is most likely associated with bluestone crushed rock.

Sample WS6/0.1 reported elevated concentrations of arsenic, copper and zinc indicating a potential anthropogenic source at this location, and possibly attributable to historic industrial use in this area (workshops, etc).

Sample TP6/1.0 reported elevated concentrations of cobalt and manganese. This location was in the south west area which identified a mound of fill material, predominantly comprising reworked natural clay and rock with minor amounts of inert waste materials (crochery, metal, plastic) indicating a potential anthropogenic source associated with this material. The sample collected from 1.5 mbgl at TP06 reported significantly lower concentrations of cobalt and manganese (below EIL and HIL criteria) as did surrounding test pit locations, suggesting that the elevated concentrations reported for sample TP6/1.0 does not appear to be laterally or vertically extensive in this area.

The remaining metals concentrations generally fall within natural background concentration ranges and are typical of the shale rock and weather regolith that covers much of western Sydney.

Table 7 Summary of Soil Sample Exceedances for Heavy Metals

Analyte	Adopted Criteria (mg/kg)		No of Exceedances		Max Concentration (mg/kg)	Background Ranges ¹
	EIL	HIL	EIL	HIL		
Arsenic	20	100	7	1	200 (WS6/0-0.1)	1 - 50
Cadmium	3	20	2	0	14 (GW1/2.8-3.0)	1
Cobalt	-	100	-	1	540 (TP06/1.0)	5 – 1000
Copper	100	1000	3	0	520 (WS6/0-0.1)	2 – 100
Manganese	500	1500	20	2	2900 (TP06/1.0)	850
Nickel	60	600	11	0	190 (HA29/0.13)	5 - 500
Vanadium	50	-	5	-	70 (TP45/0.5)	20 - 500
Zinc	200	7000	7	0	2300 (WS6/0-0.1)	10 - 300

¹ Reported in NEPM, based on Field Geologist's Manual (1989)



6.2.2 Organics

Polychlorinated Biphenyls (PCBs) concentrations were below laboratory limits of reporting (LOR) for all samples with the exception of a concentration of 7 mg/kg for Arochlor 1254 in sample WS6/0-0.1. The remaining five PCBs analysed in sample WS6/0-0.1 were reported below the laboratory LOR of 2 mg/kg. The adopted HIL for total PCBs for a residential setting is 10 mg/kg. Conservatively, using half the LOR returns a concentration of 12 mg/kg for total PCBs, suggesting the potential for PCBs at this location to marginally exceed the adopted criteria of 10 mg/kg.

The presence of PCBs at this location may be attributable to historic spillage of oils containing PCB associated with the transformers located close to this sample location. Concentrations of PCB for the underlying sample collected from 0.2-0.3 m were below LOR for all PCBs indicating that the identified PCB contamination was limited to the surface soils at this location.

All other organic compounds tested were below laboratory LOR for all samples analysed.

6.2.3 Pesticides

Pesticides were below laboratory LOR for all samples analysed.

6.2.4 Asbestos

The AC fragments identified at TP25, TP30, TP31, TP32, TP33 and TP40 were submitted for laboratory testing to confirm the presence of asbestos (refer laboratory report 54368-[R00], Appendix D). This testing confirmed the presence of chrysotile, amosite and crocidolite asbestos in these fragments.

A number of soil samples from across the site, including those corresponding to locations where AC fragments were identified, were submitted for laboratory asbestos analysis. Samples submitted for asbestos analysis reported zero asbestos fibres indicating that the asbestos was generally restricted to bonded fragments and had not become friable and dispersed within the soil matrix.

6.3 Preliminary Waste Classification

The analytical results were compared against the NSW EPA Waste Classification Guidelines (DECC, 2008). In accordance with these guidelines, leachate tests (TCLP) were undertaken on selected samples (laboratory report 53366A, 53406A and 53456A, Appendix D).

Based on these guidelines the soil at the site would generally be classified "General Soil Waste" for off-site disposal. In areas where AC fragments were identified in the fill material, this waste would be classified "Special Waste - Asbestos Waste". The natural bedrock and weathered clay at the site does not appear to have been measurably impacted by chemical contaminants at the site and may be suitable for classification as "Virgin excavated natural material".

This is a preliminary classification only and depending on the location and volumes of proposed excavations (e.g. such as soils underlying areas that were inaccessible for sampling) further classification sampling is likely to be required to satisfy landfill and NSW EPA requirements. Further sampling at the site may reveal the presence of material classified as either Restricted Solid Waste or Hazardous Waste.



6.4 Summary of Soil Assessment Findings

- Metals concentrations above EILs were identified across the site. These were generally below Health Investigation Levels (HILs) for residential setting and are believed to be mostly indicative of natural background concentrations in the clay and weathered rock or associated with crushed rock (road base or sub-slab).
- Elevated metals concentrations identified at WS6 (arsenic, copper and zinc) and TP6 (manganese and cobalt) may be associated with anthropogenic sources (light industrial activity, historic filling). While these elevated metals do not appear to be laterally or vertically extensive, they may require further delineation depending on the development plans at these locations.
- Analytical results of soil samples collected from the black horizon at TP09 did not report contaminant concentrations above adopted criteria. This material may represent an aesthetic issue depending on the site development plan.
- The aesthetics, geotechnical characteristics and presence of AC fragments in the fill material within the central car park area will require consideration for site development.
- The presence of AC fragments in the eastern embankment will also require consideration. The asbestos appears to be limited to fragments and does not appear to have become friable and disbursed within the soil matrix.
- Further sampling in the vicinity of WS6 would be required to confirm the presence and lateral extent of PCBs in this area.
- Overall, limited chemical contamination was identified and it appears the site is not subject to gross widespread contamination of soil.
- A preliminary waste classification indicates that the soil / fill material at the site would generally be classified “General Solid Waste”, “Special Waste – Asbestos Waste” or “Virgin excavated natural material” depending on where the excavation occurs. This preliminary classification is subject to further testing of the waste material to satisfy NSW EPA and landfill requirements, and during this process there is the potential for other classifications of materials to be identified.



7. Assessment of Groundwater Contamination

7.1 Groundwater Depth and Flow Direction

The standing water level (SWL) readings measured in each monitoring well on 6 April 2011 are provided in **Table 5** (Section 4.2.1) and summarised below:

- The groundwater depth ranged from 1.65 to 4.95 metres below top of casing (mbtoc, approximately ground level) in monitoring wells targeting the fill material. The shallowest groundwater was at GW2; and
- The groundwater depth in monitoring wells targeting the regional bedrock aquifer ranged from 7.16 mbtoc in the low point of the site at GW9 (north-east) to 13.63 mbtoc at the high point of the site at GW6 (south-west).

The groundwater elevation at each monitoring location was determined by reducing the groundwater depth measurements using the elevation data from the well survey. These data were used to produce groundwater elevation contours to determine groundwater flow direction and hydraulic gradient. The interpreted groundwater contours for the perched water system and regional water table are provided as Figure 3 and Figure 4 respectively. These contours indicate the following:

- Fill material (central car park area) – easterly groundwater flow direction with a hydraulic gradient of 0.035. The elevation ranged from 52.7 to 49.2 and was approximately two metres higher than the regional water table suggesting a perched water system that is likely to be flowing along the former drainage line (creek). *It must be noted that monitoring wells within the fill material form a linear pattern, which limits the interpretation of groundwater flow. As such, the flow direction in the fill could range anywhere from north-easterly to south easterly;*
- Bedrock aquifer – easterly groundwater flow direction with a hydraulic gradient of 0.025 consistent with the regional topography. The elevation ranged from 52.62 (GW6) to 45.94 (GW4).

7.2 Groundwater Quality Parameters

Field water quality parameters recorded during the sampling of the groundwater monitoring wells are provided as Table C3, Appendix C, with a summary provided below:

- Electrical conductivity readings indicated fresh water in the fill material at BH4 (169 $\mu\text{S}/\text{cm}$), BH5 (329 $\mu\text{S}/\text{cm}$) and GW2 (875 $\mu\text{S}/\text{cm}$). The regional groundwater quality in the bedrock aquifer was saline ranging from (8 500 to 20 000 $\mu\text{S}/\text{cm}$). Groundwater at GW1 was brackish (6 200 $\mu\text{S}/\text{cm}$) indicating a possible mix from the perched and bedrock units at this location (construction details indicate that this monitoring well may be partially screened across both units). The EC readings are consistent with the Total Dissolved Solids (TDS) results discussed further in Section 7.3.1;
- The pH of the groundwater was slightly acidic typically ranging from 5 to 6.5 units;
- Reduction potential (measured as Eh) varied from -200 mV to 115 mV, with no obvious spatial pattern; and
- Dissolved oxygen (DO) levels varied from 0.01 mg/L (anaerobic) at BH5 to 5.15 mg/L (aerobic) at GW6 with no obvious spatial pattern.



7.3 Groundwater Analytical Results

Groundwater sample analytical results from the 2009 and 2011 sampling events are provided in Table C2, Appendix C. Laboratory reports are provided in Appendix D.

The results for key contaminants of concern are discussed below.

7.3.1 Total Dissolved Solids (TDS)

The groundwater quality in the shale bedrock aquifer beneath the site is moderately saline with TDS concentrations ranging from 5 100 to 12 000 mg/L. Groundwater of this salinity has limited beneficial uses. Fresher groundwater was reported in the perched water within the fill beneath the central car park area at BH4 (130 mg/L), BH5 (170 mg/L) and GW2 (680 mg/L) indicating that the fill material is likely to receive localised rainfall recharge. Brackish water at GW1 (TDS of 3 400 mg/L) is consistent with the partial screening of this monitoring well across both the fill and underlying weathered bedrock.

7.3.2 Ammonia

Ammonia concentrations at GW6 (2.6 mg/L) and GW8 (2.7 mg/L) marginally exceeded the adopted ecosystem protection criteria of 0.9 mg/L in the 2011 sampling event. These groundwater monitoring wells are both located at the up gradient site boundaries and the reported ammonia concentrations may not be associated with site activities. A possible source is leakage from sewer systems within adjacent residential areas. However, it is noted that ammonia concentrations above the adopted criteria were reported at GW1 and GW4 in 2009 with concentrations at both locations an order of magnitude lower (and below the adopted criteria) in 2011. Future investigation would be required to confirm ammonia concentrations at the site and possible sources.

7.3.3 Heavy Metals

Concentrations of heavy metals above the adopted ecosystem protection criteria (cadmium, copper, manganese, nickel and zinc) were reported in monitoring wells across the site as summarised in Table 8. The elevated metals concentrations were consistent across the site in monitoring wells targeting the bedrock aquifer and are mostly attributed to naturally elevated background concentrations given that the shale and fine sandstone geology of western Sydney commonly contains these metals. In addition, the metals would have relatively high solubility in the aquifer given the low pH of the groundwater.

Elevated concentrations of these metals were also identified in the perched water within the fill beneath the central car park area suggesting a potential anthropogenic source associated with historic filling in this area (rubble and reworked natural material). The concentrations of these metals are not considered to be significant due to the long distance to the nearest potential receiving water body (Coopers Creek located approximately 750 m to the east of the site) and the significant reduction in concentrations that would occur due to natural attenuation (retardation, mechanical dispersion, dilution, etc) along the flow path.



Table 8 Summary of Groundwater Sample Exceedances for Heavy Metals (April 2011)

Analyte	Adopted Criteria (mg/L)	No of Exceedances	Max Concentration (mg/L)
Cadmium	0.0002	1	0.0021 (GW1)
Copper	0.0014	9	0.021 (GW6, GW8, GW9)
Manganese	1.9	2	8.6 (GW7)
Nickel	0.011	8	0.19 (GW1)
Selenium ⁷	0.005	4	0.038 (GW9)
Zinc	0.008	9	0.41 (GW1)

7.3.4 Organics

Chlorinated Hydrocarbons

The chlorinated hydrocarbon trichlorethylene (TCE) was reported above laboratory LOR in monitoring well GW1 in both sampling rounds. The TCE concentration of 200 ug/L reported in 2009 exceeded the adopted ecosystem protection criteria of 70 ug/L (low reliability trigger value). The TCE reported at GW1 in the more recent round of sampling was considerably lower at 20 ug/L, which was below the adopted criteria of 70 ug/L.

A vinyl chloride (VC) concentration of 22 ug/L was reported at GW1 in 2009 suggesting that some biodegradation of TCE had occurred (VC is a daughter product of TCE biodegradation via reductive dechlorination). In 2011, the VC concentration at GW1 was below the laboratory LOR of 1 ug/L consistent with the decrease in TCE also reported.

The presence of chlorinate hydrocarbons in the groundwater at this location suggests that chlorinated solvents may have been disposed in the fill material in this area. Based on the results from the other groundwater monitoring wells, all below laboratory LOR, this impact appears to be limited to groundwater in the vicinity of GW1.

There are no ecosystem protection criteria for VC but it is noted that the concentrations identified exceeded the drinking water guideline of 0.3 ug/L. This is not considered a significant risk given the groundwater quality at GW1 is unsuitable for drinking and potable water supply is a highly unlikely beneficial use of the groundwater beneath the site. In terms of human health risk, TCE and VC are both volatile contaminants that can pose a vapour risk to future residential dwellings at high concentrations in groundwater (partitioning from dissolved phase to gaseous phase). While the reported concentrations of these compounds reported at GW1 are considered relatively low, this is likely to require further assessment prior to re-development of this part of the site subject to the requirements of the site auditor.

Two rounds of sampling is generally considered insufficient to establish a trend and further monitoring of TCE and VC is recommended at this location to confirm concentration trends.

⁷.As noted in Appendix E, the results of rinsate blank analysis suggest that the selenium concentrations are potentially unreliable and the selenium exceedances reported for BH4, GW 1 and GW2 need to be viewed with caution.



Total Petroleum Hydrocarbons

Concentrations of TPH were below laboratory LOR in all monitoring wells except GW1, which returned a total TPH concentration of 200 – 250 ug/L in the April 2011 sampling round. This may be attributable to contaminated fill at this location but is not considered significant given the relatively low concentrations identified.

Other Organic Compounds

All other organic compounds tested were below laboratory LOR for all samples analysed.

7.3.5 Pesticides

Pesticides were below laboratory LOR for all samples analysed.

7.4 Summary of Groundwater Assessment Findings

- The fresh groundwater within the fill material in the central car park area is considered perched water recharged by local rainfall and not representative of an aquifer resource. The salinity and potential yield of groundwater in the bedrock aquifer (shale and fine sandstone) is generally not suitable for extractive purposes and given the residential setting and access to mains water supply the likelihood of groundwater extraction for beneficial uses (domestic, stock watering, irrigation) is considered low.
- Concentrations of heavy metals above the adopted ecosystem protection criteria were reported in groundwater across the site and are mostly attributable to naturally elevated background concentrations. Some elevated concentrations of metals in the perched water within the central car park area may be attributable to historic filling in this area (rubble and reworked natural material). This is not considered a significant issue as concentrations are likely to decrease considerably prior to discharge to the nearest receiving water body due to natural attenuation along the flow path.
- Trichlorethylene (TCE) and vinyl chloride (VC) have been reported above laboratory LOR in monitoring well GW1 suggesting that chlorinated solvents may have been deposited in the fill material in the central car park area. While this contamination appears to be generally localised, further assessment is likely to be required as part of any future redevelopment in order to quantify the potential human health risk that it may pose, and to determine an appropriate site management or remediation response if warranted.
- With the exception of some minor TPH concentrations at GW1, all other organic compounds tested were below laboratory LOR for all samples analysed.



8. Results of Quality Assurance / Quality Control Program

The results of the QA/QC program are considered to provide an acceptable degree of confidence in the analytical program completed, with the exception of the selenium results for groundwater in mgt laboratory report 295938, which are considered potentially unreliable. Overall, the analytical data set is considered to be valid and acceptable to base conclusions on the contamination status of the site.

A data validation report is attached as Appendix E.



9. Conclusions

The results of this Phase 2 investigation indicated that the site is not subject to gross, widespread contamination. There are localised areas where elevated concentrations of contaminants and/or AC fragments have been identified. These areas may require further vertical and lateral delineation once site infrastructure has been removed and the proposed development has been determined.

Overall, the results of soil and groundwater sampling indicated that contaminant concentrations were generally within acceptable limits for a residential setting, with the exception of some areas that are likely to require further investigations during the redevelopment phase.

In particular, the following items may require further consideration prior to or during re-development:

- Management or removal of AC fragments in fill material along the eastern portion of the site and within the central car park area;
- Further assessment of PCBs in surface soils in the vicinity of the former transformer stations, such as those identified at WS6;
- Elevated metals concentrations at WS6 (arsenic, copper and zinc) and TP6 (manganese and cobalt) may require further delineation depending on the development plan at these locations;
- Management or removal of any near surface soils containing elevated heavy metals concentrations including crushed rock and road/slab base material;
- Management or removal of any material that may represent an aesthetic issue for site redevelopment, such as the ash identified at test pit TP9 or the fill material within the central car park (rubble from demolition of old boiler house); and
- Further assessment of the chlorinated hydrocarbon contamination in groundwater identified at monitoring well GW1.

The management and disposal cost of waste soils should be taken into consideration for site re-development. Based on the results of this assessment the soil / fill material at the site would generally be classified "General Solid Waste", "Special Waste – Asbestos Waste" or "Virgin excavated natural material" depending on where the excavation occurs. It should be noted that this preliminary classification is subject to further testing of the waste material to satisfy NSW EPA and landfill requirements and during this process there is the potential for other classifications of materials to be identified.

Some areas of the site were not accessible for sampling (portions of Building 1 and 3, administrative offices). While contamination in these areas is not expected (based on site history information), there is the potential for contamination to be identified in these areas following demolition of these structures.

This report should be read in full and no excerpts are taken to be representative of the findings of this Report.



10. Disclaimer

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- 3. must not be copied to, used by, or relied on by any person other than Pacific Brands without the prior written consent of GHD and subject always to the next paragraph; and*
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The services undertaken by GHD in connection with preparing this Report:

- were limited to those specifically detailed in section 1.3 of this Report and GHD proposal dated 22 February 2011, document number 21/091093/6/167741; and*
- were undertaken in accordance with current profession practice and by reference to relevant environmental regulatory authority and industry standards, guidelines and assessment criteria in existence as at the date of this Report.*

The opinions, conclusions and any recommendations in this Report are based on assumptions made by GHD when undertaking the services mentioned above and preparing the Report ("Assumptions"), as specified throughout this Report.

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legislations changes, at which time, GHD expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with those opinions, conclusions and any recommendations.”

Except as otherwise expressly stated in this Report GHD makes no warranty or representation as to the extent or otherwise of asbestos and/or asbestos containing materials (“ACM”) on the site. If fill material has been imported on to the site at any time, or if any buildings constructed prior to 1970 have been demolished on the site or material from such buildings disposed of on the site, the site may contain asbestos or ACM.

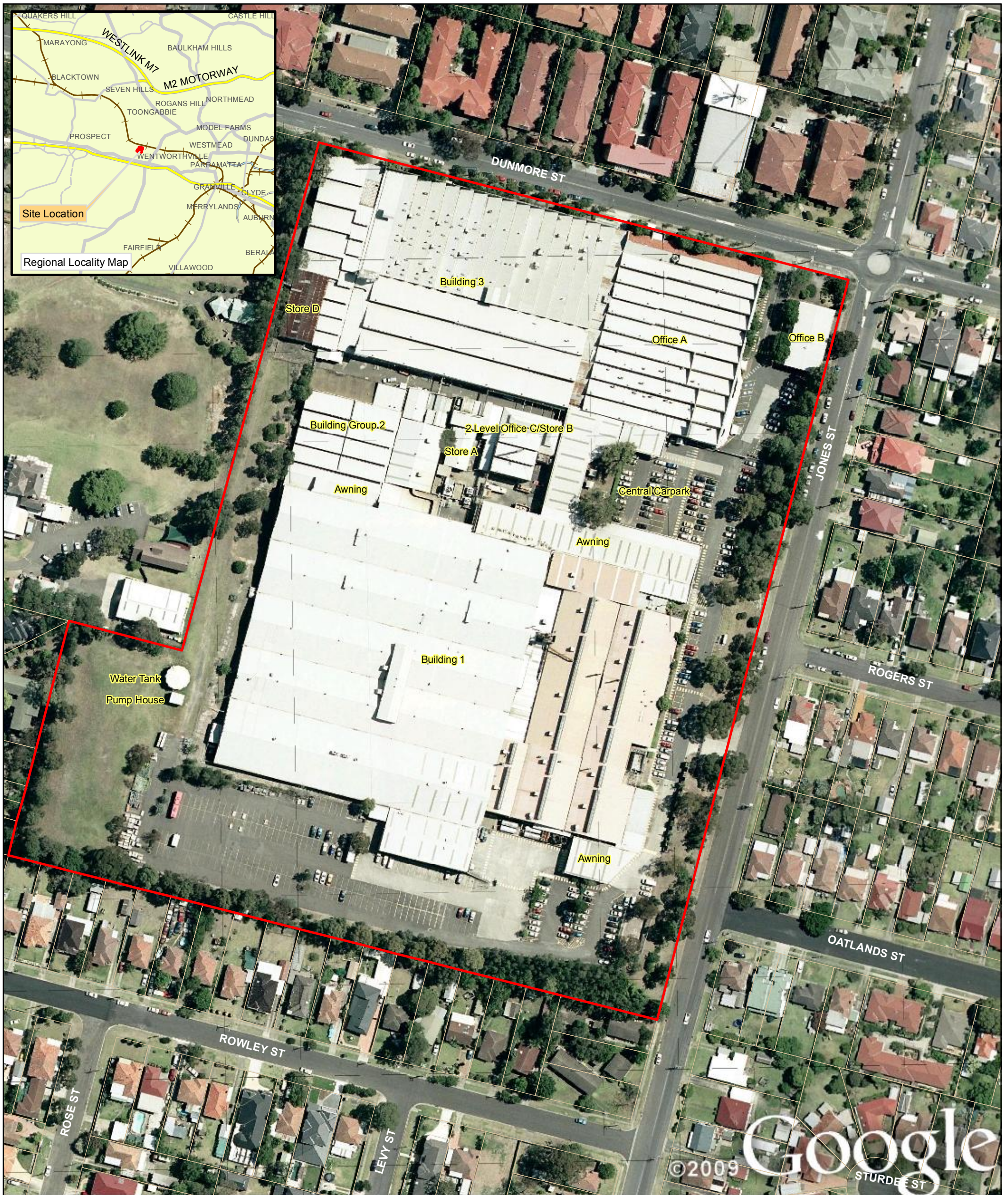
Subsurface conditions can vary across a particular site and cannot be exhaustively defined by the investigations carried out prior to this Report. As a result, the results and estimations expressed or used to compile this Report may not represent conditions at any location other than the specific points of sampling. A site that appears to be unaffected by contamination at the time of the Report may later, due to natural causes or human intervention, become contaminated.

These Disclaimers should be read in conjunction with the entire Report and no excerpts are taken to be representative of the findings of this Report

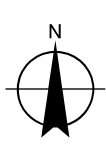
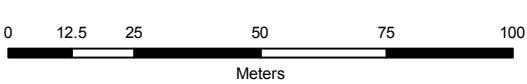


Figures

- Figure 1 Site Location and Layout
- Figure 2 Sample Location Plan
- Figure 3 Interpreted Groundwater Contours – Fill Material
- Figure 4 Interpreted Groundwater Contours - Bedrock



LEGEND
 Site Boundary



Map Projection: Transverse Mercator
 Horizontal Datum: Geocentric Datum of Australia (GDA)
 Grid: Map Grid of Australia 1994, Zone 56



CLIENTS | PEOPLE | PERFORMANCE

Pacific Brands, Wentworthville
 Phase 2 Environmental Site Assessment

Job Number | 21-20474
 Revision | A
 Date | 17 May 2011

Site Location and Layout

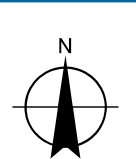
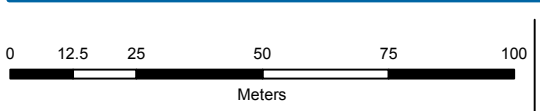
Figure 1

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 Level 15, 133 Castlereagh Street Sydney NSW 2000 T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com.au W www.ghd.com.au
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 Data Source: NSW Department of Lands, Cadastre - Jan 2010; Geoscience Australia 250k Data - Jan 2011; Google Earth Pro - 2011 Created by: sdwoodger



LEGEND

Borehole / Window Sampler	Concrete Slab On Rock	Inferred location of former incinerator
Hand Auger	Approximate location of previous diesel spill	Substation
Groundwater Monitoring Well	Inferred location of backfilled creek	Transformers
Test Pit	Inferred location of former UST's	Effluent Pit
Grid (30m x 30m)	Inferred location of former coal fired boiler house	



Map Projection: Transverse Mercator
 Horizontal Datum: Geocentric Datum of Australia (GDA)
 Grid: Map Grid of Australia 1994, Zone 56



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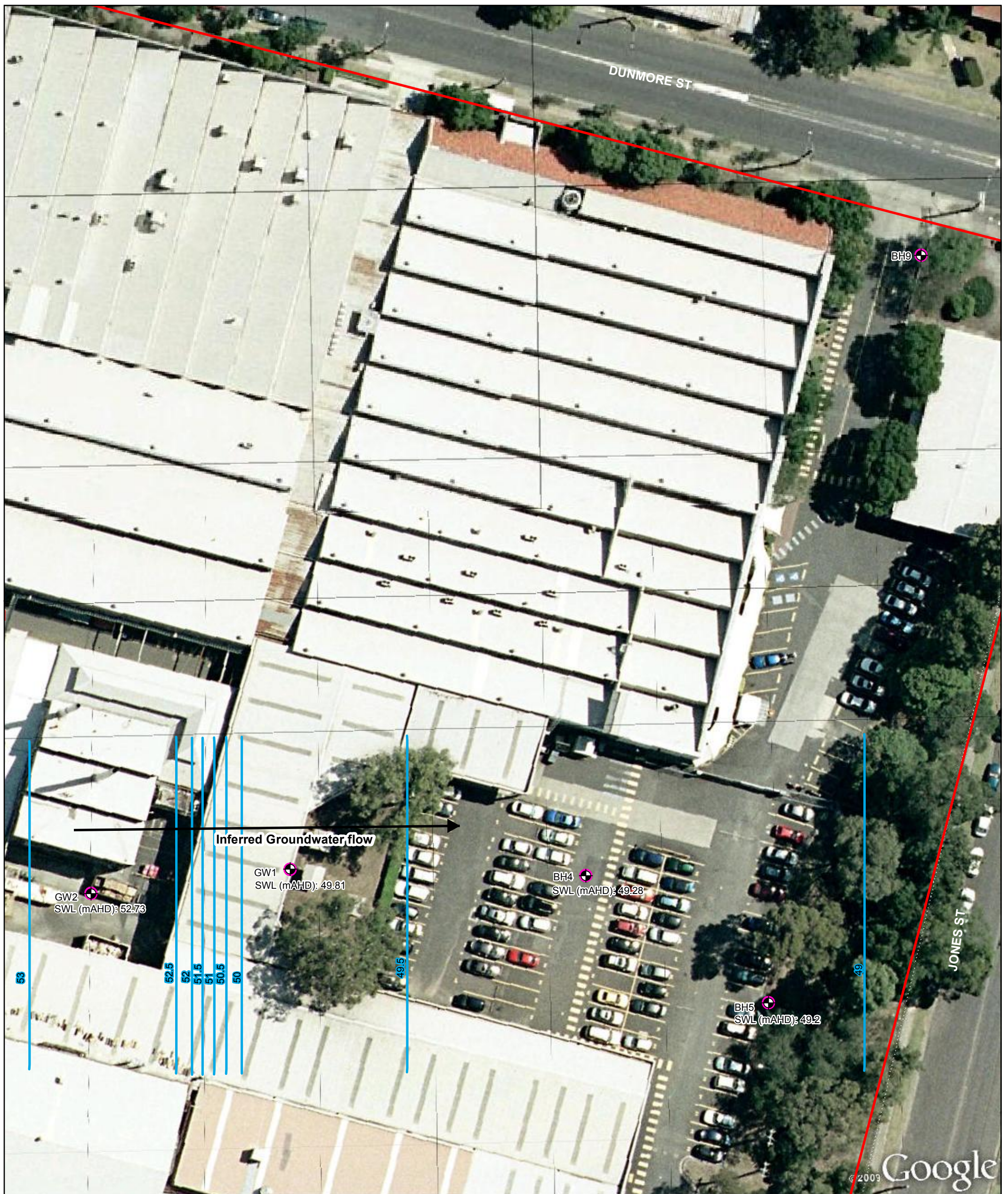
Pacific Brands, Wentworthville
 Phase 2 Environmental Site Assessment

Job Number | 21-20474
 Revision | 0
 Date | 17 May 2011

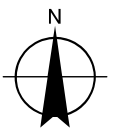
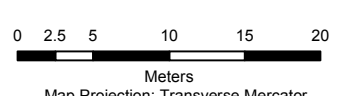
Sample Location Plan

Figure 2

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 Level 15, 133 Castlereagh Street Sydney NSW 2000 T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com.au W www.ghd.com.au
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 Data Source: NSW Department of Lands, Cadastre - Jan 2010; Geoscience Australia 250k Data - Jan 2011; Google Earth Pro - 2011 Created by: sdwoodger



LEGEND
 — Groundwater Contours (mAHd)
 → Inferred Groundwater Flow
 ⊕ Groundwater Monitoring Well



Pacific Brands, Wentworthville
 Phase 2 Environmental Site Assessment

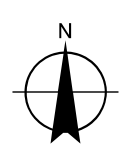
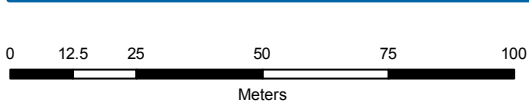
Job Number | 21-20474
 Revision | 0
 Date | 17 May 2011

CLIENTS | PEOPLE | PERFORMANCE **Interpreted Groundwater Contours - Fill Material Figure 3**

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 Level 15, 133 Castlereagh Street Sydney NSW 2000 T 61 2 9239 7100 F 61 2 9239 7199 E sydmail@ghd.com.au W www.ghd.com.au
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 Data Source: NSW Department of Lands, Cadastre - Jan 2010; Geoscience Australia 250k Data - Jan 2011; Google Earth Pro - 2011 Created by: sdwoodger



- LEGEND**
- Groundwater Contour (mAHd)
 - Inferred Groundwater Flow
 - Groundwater Monitoring Well



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Pacific Brands, Wentworthville
Phase 2 Environmental Site Assessment

Job Number	21-20474
Revision	0
Date	17 May 2011

Interpreted Groundwater Contours - Bedrock **Figure 4**

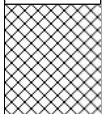

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 Data Source: NSW Department of Lands, Cadastre - Jan 2010; Geoscience Australia 250k Data - Jan 2011; Google Earth Pro - 2011; GHD: Contours, Sample Locations, Concrete slab on rock 2011 Created by: sdwoodger



Appendix A
Borehole and Test Pit Logs

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **6/5/09**
 PROJECT: **Contamination Assessment** COMPLETED: **6/5/09**
 LOCATION: **Wentworthville, NSW** LOGGED BY: **A Doran**
 CONTRACTOR: **N/A** EQUIPMENT: **Truck Mounted Drill Rig** CHECKED BY: **A Dobson**

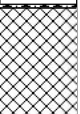
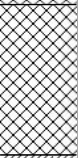

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground Level** TOTAL DEPTH (m): **1.3** DIAMETER (mm):
 X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	SF	GS			N/A	0.00	Ground Surface			0
	SF	GS		BH1/0.1-0.3			Fill Sandy clay with gravels, orange and brown, moist	Blue metal and possible charcoals		
	SF	GS		BH1/0.3-0.5						
1	SF	GS		BH1/0.8-1.0		0.80	Fill Clay with frequent ironstone gravels, red / brown			1
						1.30	End of borehole at 1.3m Refusal on obstruction			

Method SF = Solid Flight Auger HF = Hollow Flight Auger HA = Hand Auger PT = Push Tube	Sample Type A = Auger SS = Split Spoon Sampler GS = Grab Sample SC = Sediment Core	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing (mAHD) PID = Photoionisation Detector
---	---	--

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **20/05/09**
 PROJECT: **Contamination Assessment** COMPLETED: **20/05/09**
 LOCATION: **190 Dunmore Street, Wentworthville, NSW** LOGGED BY: **Charlie McLean**
 CONTRACTOR: **GHD** EQUIPMENT: **Percussion Window Sampler** CHECKED BY: **Andrew Doran**

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1** DIAMETER (mm): **80** - 50
 X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	PCS	UDS		BH3/0.0-1		0.00	Ground Surface GRASS FILL Brown, silt, sand, mixed gravels & blue metal cobble < 50mm Ø	Bitumen		0
						0.30	FILL Grey-black, silt, sand & ash, frequent mixed gravels < 10mm Ø	Ash		
	PCS	UDS		BH3/0.5-0.6						
						0.70	CLAY Grey-brown & orange-brown mottled, soft-firm, moist.	Possible hydrocarbon odour		
1	PCS	UDS		BH3/0.9-1		1.00	End Of Hole (Residual)			1

Method
PCS = Pneumatic Core Sampler

Sample Type
UDS = Undisturbed Samples

Other
SWL = Standing Water Level
PID = Photoionisation Detector

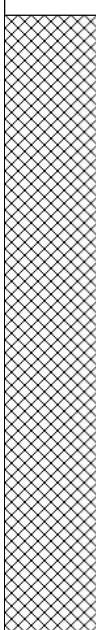

SOIL BOREHOLE LOG

BOREHOLE No.: GW3

Page: 1 of 1

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **6/5/09**
 PROJECT: **Contamination Assessment** COMPLETED: **6/5/09**
 LOCATION: **Wentworthville, NSW** LOGGED BY: **A Doran**
 CONTRACTOR: **N/A** EQUIPMENT: **Truck Mounted Drill Rig** CHECKED BY: **A Dobson**

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground Level** TOTAL DEPTH (m): **5.0** DIAMETER (mm):
 X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	SF	GS		GW3/0.0-0.2	N/A	0.00	Ground Surface			0
	SF	GS		GW3/0.3-0.5			Fill Sandy clay, brown and orange, gravels, likely reworked			
	SF	GS		GW3/0.8-1.0						
1										
	SF	GS		GW3/1.8-2.0						
2										
	SF	GS		GW3/2.8-3.0						
3										
	SF	GS		GW3/3.8-4.0						
4										
						4.20	Clay Sandy clay, orange and brown with red mottles, some ironstone			
5						5.00	End of borehole at 5.0m Increasing shale			5
6										6
7										7
8										8
9										9

Method SF = Solid Flight Auger HF = Hollow Flight Auger HA = Hand Auger PT = Push Tube	Sample Type A = Auger SS = Split Spoon Sampler GS = Grab Sample SC = Sediment Core	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing (mAHD) PID = Photoionisation Detector
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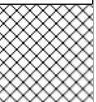


SOIL BOREHOLE LOG

BOREHOLE No.: GW5

Page: 1 of 1

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **6/5/09**
 PROJECT: **Contamination Assessment** COMPLETED: **6/5/09**
 LOCATION: **Wentworthville, NSW** LOGGED BY: **A Doran**
 CONTRACTOR: **N/A** EQUIPMENT: **Truck Mounted Drill Rig** CHECKED BY: **A Dobson**

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground Level** TOTAL DEPTH (m): **2.0** DIAMETER (mm):
 X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	SF	GS		GW5/0.0-0.2	N/A	0.00	Ground Surface			0
	SF	GS		GW5/0.3-0.5			Fill Silty sand with gravels, brown / dark brown, occasional grey clay bands			
1	SF	GS		GW5/0.8-1.0		0.70	Clay Red, firm to stiff, minor grey bands, some ironstone, moist			1
2	SF	GS		GW5/1.8-2.0		1.60	Clay Grey with red ironstone, banding, stiff, moist			2
						2.00	End of borehole at 2.0m Residual			2
3										3
4										4
5										5
6										6
7										7
8										8
9										9

Method SF = Solid Flight Auger HF = Hollow Flight Auger HA = Hand Auger PT = Push Tube	Sample Type A = Auger SS = Split Spoon Sampler GS = Grab Sample SC = Sediment Core	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing (mAHD) PID = Photoionisation Detector
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SOIL BOREHOLE LOG

BOREHOLE No.: WS1

Page: 1 of 1

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 14/05/09
PROJECT: Contamination Assessment		COMPLETED: 14/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran




R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1.2** DIAMETER (mm): **80** - 50
X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE		0	
	PCS	UDS		WS1/0.18-0.28		0.17	FILL / REWORKED Grey and red brown mottled, firm, clay. Some ironstone gravels, moist.		0.17	
	PCS	UDS		WS1/0.6-0.7		0.60	FILL Dark brown, gravel, sand, some clay, minor charcoal, moist.		0.60	
1	PCS	UDS		WS1/1.1-1.2		0.80	CLAY Grey & red brown mottled, frequent ironstone, some shale gravels <10mm Ø, moist, soft-firm		0.80	
						1.20	End Of Hole (Residual)		1.20	

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level PID = Photoionisation Detector
---	---	--

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 20/05/09
PROJECT: Contamination Assessment		COMPLETED: 20/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1.0** DIAMETER (mm): **80** - 50
X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	PCS	UDS		WS2/0.0-0.1		0.00	Ground Surface GRASS FILL Brown, silty sand, clay inclusions, frequent gravels.	Glass Fragment, Minor charcoal		0
	PCS	UDS		WS2/0.3-0.4		0.25	FILL Red-brown, grey-brown clay, sand & gravels, moist.	Minor charcoal		
	PCS	UDS		WS2/0.9-1.0		0.50	CLAY Red-brown & grey mottled, firm-stiff, some ironstone & shale gravels, dry-moist. Becoming predominately grey with depth. Grading to weathered shale			
1						1.00	End Of Hole (Residual)			1

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
PID = Photoionisation Detector		

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 14/05/09
PROJECT: Contamination Assessment		COMPLETED: 14/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran
R.L. @ TOC (m AHD):	VERTICAL DATUM: Ground surface	TOTAL DEPTH (m): 3
X-COORDINATE:	Y-COORDINATE:	DIAMETER (mm): 80

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE			0
	PCS	UDS		WS3/0.2-0.3		0.19	FILL Grey brown, gravel sand, medium grain, mixed unknown gravel.	Some ash & charcoal		
						0.40	REWORKED/FILL Grey & red-brown mottled clay, mixed gravel.			
	PCS	UDS		WS3/0.6-0.7		0.60	FILL Brown & grey-brown, sand, gravel & clay.	Some ash & charcoal		
						0.80	REWORKED Grey & tan brown mottled clay, firm, frequent ironstone gravels.			
1	PCS	UDS		WS3/1.1-1.2		1.20	FILL .Grey-brown, soft, eustarine clay, some gravels, moist.	Frequent charcoal & ash		
	PCS	UDS		WS3/1.3-1.4		1.50	REWORKED/FILL Grey brown, sand, gravel & clay, moist			
2	PCS	UDS		WS3/2-2.3		2.00	CLAY Grey orange-brown mottled, firm-stiff. Ironstone & shales increasing with depth.			2
3						3.00	End Of Hole (Residual)			3

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level PID = Photoionisation Detector
---	---	--

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 20/05/09
PROJECT: Contamination Assessment		COMPLETED: 20/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran
R.L. @ TOC (m AHD):	VERTICAL DATUM: Ground surface	TOTAL DEPTH (m): 2.2
X-COORDINATE:	Y-COORDINATE:	DIAMETER (mm): 80

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE			0
	PCS	UDS		WS4/0.3-0.4 [AD2]		0.28	FILL Grey brown, gravel sand & predominately clay, moist.	Frequent bitumen & blue metal gravels		
	PCS	UDS		WS4/0.5-0.6		0.43	BITUMEN Large bitumen cobble. FILL Grey, clayey sand, with frequent bitumen & blue metal gravels.			
	PCS	UDS		WS4/1.2-1.3		0.85	FILL/REWORKED Brown & red-brown, firm clay, with frequent mixed gravels, moist.			
	PCS	UDS		WS4/2-2.2		1.40	CLAY Grey & orange-brown mottled, firm-stiff, minor ironstone gravels, moist.			
						2.20	End Of Hole (Residual)			

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
		PID = Photoionisation Detector

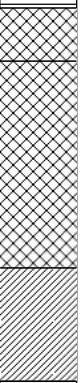
CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 20/05/09
PROJECT: Contamination Assessment		COMPLETED: 20/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran
R.L. @ TOC (m AHD):	VERTICAL DATUM: Ground surface	TOTAL DEPTH (m): 1.2 DIAMETER (mm): 80 - 50
X-COORDINATE:	Y-COORDINATE:	HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE	Some rail ballast directly beneath concrete slab	0	
	PCS	UDS		WS5/0.2-0.3		0.19	FILL Grey-brown, sandy clay, frequent mixed gravels, moist.		0.19	
	PCS	UDS		WS5/0.4-0.5		0.35	CLAY/IRONSTONE Red-brown & red ironstone, with frequent grey-brown clay banding.		0.35	
						0.70	CLAY Grey & red-brown mottled, firm-stiff, clay, shale noted. Shale increasing & hardening with depth.		0.70	
1	PCS	UDS		WS5/1.1-1.2		1.20	End Of Hole (Refusal On Shale Rock)		1.20	

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level PID = Photoionisation Detector
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CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 20/05/09
PROJECT: Contamination Assessment		COMPLETED: 20/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1** DIAMETER (mm): **80** - 50
X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)	
0	PCS	UDS		WS6/0-0.1		0.00	Ground Surface UNSEALED	String, Blue metal gravels, wood fragment, concrete Slag/charcoal		0	
	PCS	UDS		WS6/0.2-0.3		0.15	FILL Grey-black, silt, gravel, sand, moist. FILL/REWORKED Grey-brown & tan-brown mottled clay, frequent sand & gravels, moist, occasional clay lenses. Clay increasing with depth..				
	PCS	UDS		WS6/0.7-0.8		0.70	CLAY Grey-brown & tan-brown mottled, firm-stiff, weathered shale lenses, moist. Red ironstone banding @ 0.9m				
1						1.00	End Of Hole (Refusal On Shale Rock Bands)			1	

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
PID = Photoionisation Detector		

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 14/05/09
PROJECT: Contamination Assessment		COMPLETED: 14/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **0.8** DIAMETER (mm): **80** - 50
X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE			0
	PCS	UDS		WS7/0.2-0.3		0.19	CLAY Grey, soft-firm, some shale gravels.		▨	
						0.50	CLAY Grey, firm, frequent red ironstone banding.		▨	
	PCS	UDS		WS7/0.7-0.8			IRONSTONE Fractured red ironstone.		▨	
							CLAY Grey, firm-stiff, frequent red ironstone banding.		▨	
1							End Of Hole (Residual)		▨	1
2										2
3										3

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
PID = Photoionisation Detector		

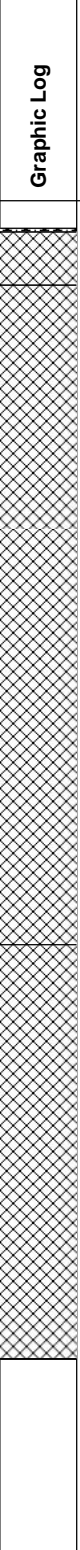
CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 14/05/09
PROJECT: Contamination Assessment		COMPLETED: 14/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1.4** DIAMETER (mm): **80** - 50
X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE			0
	PCS	UDS		WS8/0.2-0.3		0.18	FILL Grey-brown, gravel, sand, medium grain, mixed gravel, moist.	Brick fragment		
						0.30	CLAY Grey & red-brown mottled, firm-stiff, minor gravels <5mm Ø, moist.			
	PCS	UDS		WS8/0.5-0.6						
	PCS	UDS		WS8/0.7-0.8		0.70	CLAY Dark brown, soft, some gravels, moist.			
	PCS	UDS		WS8/0.9-1			CLAY/WEATHERED SHALE Grey & red-brown, ironstone bands.			1
						1.40	End Of Hole (Refusal On Shale)			

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
PID = Photoionisation Detector		

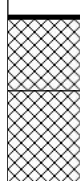

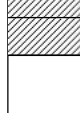
CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 20/05/09
PROJECT: Contamination Assessment		COMPLETED: 20/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran
R.L. @ TOC (m AHD):	VERTICAL DATUM: Ground surface	TOTAL DEPTH (m): 3
X-COORDINATE:	Y-COORDINATE:	DIAMETER (mm): 80 - 50
		HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	PCS	UDS		WS9/0.0-0.1		0.00	Ground Surface GRASS	Minor charcoal		0
						0.15	FILL Brown, silty sand, minor clay component, moist.	Minor ash & charcoal, Brick fragment		
							FILL Brown & red-brown sandy clay, frequent gravels, moist.			
	PCS	UDS		WS9/0.6-0.7				Small concrete fragment Slag & charcoal		
						0.80	Increasing grey sand.	Terracotta pipe fragment		
	PCS	UDS		WS9/1.7-2		1.90	FILL Grey-brown sand, gravel, dry.	Wood fragments, boiler ash, coal		
	PCS	UDS		WS9/2.7-3						
3						3.00	End Of Hole			3

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
		PID = Photoionisation Detector

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **20/05/09**
 PROJECT: **Contamination Assessment** COMPLETED: **20/05/09**
 LOCATION: **190 Dunmore Street, Wentworthville, NSW** LOGGED BY: **Charlie McLean**
 CONTRACTOR: **GHD** EQUIPMENT: **Percussion Window Sampler** CHECKED BY: **Andrew Doran**

R.L. @ TOC (m AHD): VERTICAL DATUM: **Ground surface** TOTAL DEPTH (m): **1** DIAMETER (mm): **80** - 50
 X-COORDINATE: Y-COORDINATE: HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0	PCS	UDS		WS10/0-0.1		0.00	Ground Surface THIN BITUMEN FILL Brown, silty sand, frequent mixed gravel, moist.	Scattered bitumen & blue metals Small blue metal gravels		0
0.20						FILL/REWORKED Grey-brown & orange-brown mottled, slightly sandy clay, soft-firm, moist..				
	PCS	UDS		WS10/0.5-0.6		0.50	CLAY Grey & tan brown mottled, firm, moist.			
						0.80	Some ironstone banding.			
1	PCS	UDS		WS10/0.9-1			WEATHERED SHALE? CLAY Grey, weathered, frequent clay bands, moist. Shale increasing & hardening with depth. End Of Hole			1



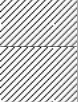

Method
PCS = Pneumatic Core Sampler

Sample Type
UDS = Undisturbed Samples

Other
SWL = Standing Water Level

PID = Photoionisation Detector

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 14/05/09
PROJECT: Contamination Assessment		COMPLETED: 14/05/09
LOCATION: 190 Dunmore Street, Wentworthville, NSW		LOGGED BY: Charlie McLean
CONTRACTOR: GHD	EQUIPMENT: Percussion Window Sampler	CHECKED BY: Andrew Doran
R.L. @ TOC (m AHD):	VERTICAL DATUM: Ground surface	TOTAL DEPTH (m): 0.65 DIAMETER (mm): 80 - 50
X-COORDINATE:	Y-COORDINATE:	HORIZONTAL DATUM:

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION - USCS Soil Group Symbol, colour, soil types, particle characteristics or plasticity, colour, secondary and minor components, moisture content, consistency, structure, geological origin.	CONTAMINANT INDICATORS - Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Graphic Log	Depth (m)
0						0.00	Ground Surface CONCRETE			0
	PCS	UDS		WS11/0.2-0.3		0.20	REWORKED Red-brown & grey mottled, firm clay & shale gravels, moist.			
							CLAY Grey, soft-firm, red ironstone banding.			
	PCS	UDS		WS11/0.5-0.6		0.50	WEATHERED SHALE/ CLAY Grey shale, with clay banding, minor red ironstone lenses.			
						0.65	Hardening with depth. End Of Hole (Refusal on Shale)			

Method PCS = Pneumatic Core Sampler	Sample Type UDS = Undisturbed Samples	Other SWL = Standing Water Level
		PID = Photoionisation Detector



TEST PIT LOG

ENVIRONMENTAL

ID: TP01
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)	
Depth (m)	PID (ppm)	Sample ID	Water							
0.0					Ground Surface:					
	0	TP01			TOPSOIL			No odours or staining	0.00	
					FILL Sandy clay with fine to medium sands, pale brown with mottled grey, orange and red, dry, rootlets, rock fragments			Minor pieces of crockery	0.20	
	0.1	TP01_0.4								
1.0	0.2	TP01_1.0								
					CLAY Reddish brown, low plasticity, mottled grey, rootlets, dry, rock fragments, possible weathered rock			No odours or staining	1.50	
	0	TP01_1.5								
	0.2	TP01_2.0								
2.0					End of Test Pit at 2.0m				2.00	
3.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP02
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					TOPSOIL			No odours or staining	0.00
0.1		TP02_0.1			FILL Sandy clay, pale brown, dry, low plasticity, rootlets, rocks			No odours or staining	0.10
0.3		TP02_0.5							
1.0									
0.4		TP02_1.0							
0.6		TP02_1.5			CLAY Reddish brown, mottled grey and orange, low plasticity, dry, some fine sands, some rock fragments			No odours or staining	1.50
0.7		TP02_2.0							
2.0					End of Test Pit at 2.0m				2.00
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard



TEST PIT LOG

ENVIRONMENTAL

ID: TP03
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 1.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0	TP03_0.1			TOPSOIL			No odours or staining	0.00
	0	TP03_0.5			FILL Sandy clay, brown, rootlets, dry, fine to medium sands, low plasticity, firm			Pieces of cement-type sheeting at 0.5m	0.10
1.0	0	TP03_1.0							
	0	TP03_1.5			CLAY Red with grey mottling, stiff, low plasticity			No odours or staining	1.40
				End of Test Pit at 1.5m					1.50
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP04
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0.2	TP04_0.1			TOPSOIL			No odours or staining	0.00
	0.4	TP04_0.5			FILL Sandy clay, pale brown with mottled orange and red, dry, low plasticity, low plasticity, roots, rock fragments			Concrete rubble, metal pipe at 1.5m	0.20
1.0	1.5	TP04_1.0							
	1.6	TP04_1.5							
	1.75							No odours or staining	1.75
2.0	1.1	TP04_2.0			CLAY Brown, increasingly dark grey with depth, medium to high plasticity, some grey, red and orange mottling, slightly moist, firm				
	1.3	TP04_2.5							
					End of Test Pit at 2.5m				2.50
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP05

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					TOPSOIL			No odours or staining	0.00
0.2		TP05_0.1			FILL Sandy clay, pale brown, roots, dry, rock fragments, grey and orange mottling			No odours or staining	0.10
0		TP05_0.5							
1.0		TP05_1.0							
0.1		TP05_1.5							
2.0		TP05_2.0			CLAY Red, mottled grey and brown, stiff, low plasticity, rock fragments, fine rootlets			No odours or staining	2.00
0.3		TP05_2.5							
					End of Test Pit at 2.5m				2.50
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP06
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 3 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					TOPSOIL			No odours or staining	0.00
0.1		TP06_0.1			FILL Clay, light grey with red and orange mottling, medium to high plasticity, roots, firm, slightly moist			Piece of brick at 1m	0.10
0		TP06_0.5							
1.0		TP06_1.0 (QA01)			FILL Sandy clay, grey, becoming drier with depth, roots, rock fragments			No odours or staining	1.00
0		TP06_1.5							
2.0		TP06_2.0							
				CLAY Grey with orange mottling, firm, high plasticity			No odours or staining	2.50	
0		TP06_3.0							
3.0					End of Test Pit at 3.0m				3.00

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP07
Page: 1 of 1

Client: Pacific Brands Limited
Project: Wentworthville ESA
Project No.: 2120474
Location: 190 Dunmore St, Wentworthville, NSW
Date Drilled: 23/03/2011 to: 23/03/2011

Contractor: Advance (Fleck)
Machine: Excavator
Total Depth (m): 0.5
Bucket Width (mm):
Pit Width (m): Length (m):

Easting:
Northing:
Grid Ref:
Elevation: N/A
Logged by: E.Swanson Checked by: A. Tilling

EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base, crushed rock, fine sands, light grey, dry			No odours or staining	
				CLAY Grey with mottled red and orange, medium plasticity, firm to hard			No odours or staining	0.20	
0.2		TP07_05			End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP08
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base, crushed rock, fine sands, light grey, dry			No odours or staining	
	0	TP08_0.5			CLAY Grey with mottle orange and brown, roots, slightly moist, rocks, medium plasticity			No odours or staining	0.20
					End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP09

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 22/03/2011 to: 22/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Graphic Log					
0.0				Ground Surface:				
	0	TP09_0.1		TOPSOIL			No odours or staining	0.00
	0.2	TP09_0.5 (QA02)		FILL Sand, black, moist, with rock and ash			Weak hydrocarbon odour at 0.5m, plastic and concrete debris at 0.5m, possible staining, ash	0.20
	0.1	TP09_1.0		CLAY Light grey with mottled orange and red, low plasticity, slightly moist, rock fragments			No odours or staining	0.80
	1.6	TP09_2.5						
				End of Test Pit at 2.5m				2.50
3.0								

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP10
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.5 Bucket Width (mm): Pit Width (m):	Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson	Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size: Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	1	TP10_0.1			TOPSOIL			Piece of rubble (bolt) at surface	0.00
					CLAY Grey and orange, slightly moist, medium plasticity, rootlets, firm, minor fine sands			No odours or staining	0.10
	0	TP10_0.5			End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP11
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0.6	TP11_0.1			TOPSOIL			No odours or staining	0.00
					CLAY Grey and red, rootlets, medium plasticity, firm, minor sands			No odours or staining	0.10
	0.7	TP11_0.5			End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP12
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.8 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0.7	TP12_0.1			TOPSOIL			No odours or staining	0.00
	0.3	TP12_0.5			CLAY Grey and red, dry, rootlets, medium plasticity, some fine sands			No odours or staining	0.30
	0.1	TP12_0.8			End of Test Pit at 0.8m				0.80
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP13

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0.3	TP13_0.1			TOPSOIL			No odours or staining	0.00
					FILL Road base rubble, bricks, black and orange			Plastic, brick and road base rubble at 0.3m	0.30
	0.2	TP13_0.5			CLAY Grey and brown and red, dry, loose, some fine sands			No odours or staining	0.40
					End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils
 (VS) Very Soft (ST) Stiff
 (S) Soft (VST) Very Stiff
 (F) Firm (H) Hard



TEST PIT LOG

ENVIRONMENTAL

ID: TP14
Page: 1 of 1

Client: Pacific Brands Limited
Project: Wentworthville ESA
Project No.: 2120474
Location: 190 Dunmore St, Wentworthville, NSW
Date Drilled: 23/03/2011 to: 23/03/2011

Contractor: Advance (Fleck)
Machine: Excavator
Total Depth (m): 0.5
Bucket Width (mm):
Pit Width (m): Length (m):

Easting:
Northing:
Grid Ref:
Elevation: N/A
Logged by: E.Swanson Checked by: A. Tilling

EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0.2	TP14_0.1			TOPSOIL			No odours or staining	0.00
	0.4	TP14_0.5			CLAY Red with grey mottling, rootlets, dry, hard, minor fine sands, medium plasticity			No odours or staining	0.25
					End of Test Pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP15
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 1 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base, crushed rock, fine sands, light grey, dry			No odours or staining	
	0.1	TP15_0.5		CLAY Grey with mottled red and orange, low plasticity, dry, stiff, increasingly red with depth			No odours or staining	0.20	
	0.1	TP15_1.0							
1.0					End of test Pit at 1.0m				1.00
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP16
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base, crushed rock, fine sands, light grey, dry			No odours or staining	
				CLAY Brown and grey with mottled orange and red, medium plasticity, firm			No odours or staining	0.20	
0.1		TP16_05			End of Test pit at 0.5m				0.50
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP18
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.7 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base, crushed rock, fine sands, grey, dry			No odours or staining	
	0.2	TP18_0.5 (QA04)		CLAY Pale grey with red and orange mottling, slightly moist, medium plasticity, firm			No odours or staining	0.20	
					End of Test Pit at 0.7m				0.70
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard



TEST PIT LOG

ENVIRONMENTAL

ID: TP19
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 23/03/2011 to: 23/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 0.7 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Crushed rock and fine sands, brown			No odours or staining	
	0.4	TP19_0.5		CLAY Orange with mottled grey and brown, medium plasticity, firm, slightly moist			No odours or staining	0.25	
					End of Test Pit at 0.7m				0.70
1.0									
2.0									
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard



TEST PIT LOG

ENVIRONMENTAL

ID: TP29
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 24/03/2011 to: 24/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0	TP29_0.1			TOPSOIL			No odours or staining	0.00
	0	TP29_0.5			FILL Sandy clay, black/brown, low plasticity, fine sand, rootlets, rock fragments, moist			No odours or staining	0.10
	0	TP29_1.0			FILL Clay, grey with red and orange mottle, rock fragments, dry, rootlets, fine to medium sands, low plasticity			No odours or staining	0.50
	0	TP29_2.0			End of Test Pit at 2.0m				2.00
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP30
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 24/03/2011 to: 24/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size: Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
	0	TP30_0.1			TOPSOIL			No odours or staining	0.00
					FILL Sandy clay, grey/red, dry, low plasticity, fine sand, rootlets, rock fragments			No odours or staining	0.10
	0	TP30_0.5			FILL Clayey sand, brown/ black, fine to medium sands, rock fragments, rootlets, dry			No odours or staining	0.50
1.0	0	TP30_1.0 (QA05)			FILL Clay, dark brown, dry, rock fragments, rootlets, fine to medium sands			Metal fragments, metal cable, debris, asbestos cement fragments	1.00
2.0	0	TP30_2.0		FILL Clay, brown, red, dry, rock fragments, rootlets, fine to medium sands			Bricks, glass, asbestos cement fragments	1.90	
					End of Test Pit at 2.0m				2.00
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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TEST PIT LOG

ENVIRONMENTAL

ID: TP33

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2.4 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					TOPSOIL			No odours or staining	0.00
	0.4	TP33_0.5			FILL Clayey Sand and rock, brown and grey, fine, dry, loose, low plasticity clays, brittle, rootlets, increasing content of orange clay with depth			Asbestos cement fragments	
1.0	0.1	TP33_1.0							
2.0	2	TP33_2.0							
	2.4	TP33_2.4							
					End of Test Pit at 2.4m				2.40
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP34
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2.5 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size: Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface: FILL Clay, dark grey, moist, roots, rocks, loose			Piece of brick at 1m	0.00
0.3		TP34_0.2							
0.4		TP34_0.5							
1.0	0.5	TP34_1.0 (QA09)			FILL Clay, brown and grey and orange, slightly moist, medium plasticity, small rocks, some rootlets, some fine sands			Large pieces of terracotta piping at 2.5m	1.00
2.0	1.4	TP34_2.0							
	3.1	TP34_2.5							
					End of Test Pit at 2.5m				2.50
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (S) Soft (F) Firm	(ST) Stiff (VST) Very Stiff (H) Hard
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TEST PIT LOG

ENVIRONMENTAL

ID: TP40
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Contractor: Advance (Fleck) Machine: Excavator Total Depth (m): 2 Bucket Width (mm): Pit Width (m): Length (m):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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EXCAVATION				Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	PID (ppm)	Sample ID	Water						
0.0					Ground Surface:				
					BITUMEN			No odours or staining	0.00
					FILL Road base				
					FILL Clay, brown and grey with orange and red mottling, soft, medium plasticity, rocks, rubble			Pieces of bricks, cement, steel and asbestos cement fragments	0.20
	0	TP40_0.5			FILL Mostly brick rubble with some brown sandy clay, moist, loose			Bricks, asbestos cement fragments, PVC	0.50
1.0	0.5	TP40_1.0							
2.0	0.1	TP40_2.0							
					End of Test Pit at 2.0m				2.00
3.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense
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Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard	
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA04
Page: 1 of 1

Client: Pacific Brands Limited	Drill Co: Terratest	Easting:
Project: Wentworthville ESA	Driller: Terratest	Northing:
Project No.: 2120474	Rig Type: Hand Augering	Grid Ref:
Location: 190 Dunmore St, Wentworthville	Total Depth (m): 0.42	Elevation: N/A
Date Drilled: 22/03/2011	Diameter (mm):	Logged by: T.Nham
to: 22/03/2011		Checked by: A. Tilling

DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:				
						CONCRETE Concrete slab 125mm			No odours or staining	0.00
						FILL Clay with large rock fragments, brown with red/orange mottling, medium plasticity, firm.			No odours or staining	0.13
		8.5	HA04_0.3			CLAY Brown with red/orange mottling, large rock fragments, medium plasticity, firm.			No odours or staining	0.30
		24	HA04_0.4			sandy CLAY Grey, flakey texture, fine-medium sand, low plasticity, dry, rock fragments.			No odours or staining	0.40
						End of Borehole at 0.42m				0.42

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:	Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	Granular Soils	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	(VL) Very Loose	(D) Dense
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	(L) Loose	(VD) Very Dense
PD(x) Percussion Down Hole	H Hand Augering	(MD) Medium Dense	(ST) Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	W Wet		(VST) Very Stiff
			(F) Firm
			(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA05
Page: 1 of 1

Client: Pacific Brands Limited	Drill Co: Terratest	Easting:
Project: Wentworthville ESA	Driller: Terratest	Northing:
Project No.: 2120474	Rig Type: Hand Augering	Grid Ref:
Location: 190 Dunmore St, Wentworthville	Total Depth (m): 0.6	Elevation: N/A
Date Drilled: 22/03/2011	Diameter (mm):	Logged by: T.Nham
to: 22/03/2011		Checked by: A. Tilling

DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface:				
					CONCRETE Concrete slab 180mm			No odours or staining	0.00
		105	HA05_0.25		FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.18
		60	HA05_0.5		sandy CLAY Brown with orange/grey mottling, stiff, low-medium plasticity, fine-medium sand.			No odours or staining	0.40
					End of Borehole at 0.6m				0.60

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:	Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	Granular Soils	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	(VL) Very Loose	(ST) Stiff
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	(D) Dry	(S) Soft
PD(x) Percussion Down Hole	H Hand Augering	(L) Loose	(VST) Very Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	M Moist	(VD) Very Dense	(F) Firm
	W Wet	(MD) Medium Dense	(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA06
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dumore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 1.5 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface: CONCRETE			No odours or staining	0.00	
		0	HA06_0.14		FILL Clayey sand, fine sands, brown, rock fragments.			No odours or staining	0.13	
		0	HA06_0.5		CLAY Red and brown, low plasticity, dry, some fine sands			No odours or staining	0.50	
1.0		0	HA06_1.0		CLAY Mottled grey and red, low to medium plasticity, slightly moist, firm, becoming greyer and drier with depth			No odours or staining	1.00	
		0	HA06_1.5		End of Borehole at 1.5m				1.50	
-2.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA08

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.3 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface: CONCRETE			No odours or staining	0.00	
		0	HA08_0.21		WEATHERED ROCK Grey, red and orange, clay and angular rock fragments.			No odours or staining	0.20	
					End of Borehole at 0.3m				0.30	
1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(ST) Stiff
PD(x) Percussion Down Hole	H Hand Augering			(VST) Very Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA13
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 1.36 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: CONCRETE Concrete slab 155mm			No odours or staining	0.00
					FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.15
		0.2	HA13_0.37		FILL Sand, yellow beach sand, some large rock fragments, fine-medium grain, black speckles throughout.			No odours or staining	0.37
		0.3	HA13_0.5		FILL Sand, yellow beach sand, fine-medium grain, dry.			No odours or staining	0.50
1.0		0.2	HA13_1.0						
		0.3	HA13_1.3		FILL Sand mixed with brown clay, stiff, low plasticity, dry			No odours or staining	1.30
					End of Borehole at 1.36m				1.36
-2.0									

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:	Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	PSC(x) Percussion Simultaneous Casing AS Augering - Solid Flight AH Augering - Hollow Flight H Hand Augering	(D) Dry M Moist W Wet (VL) Very Loose (L) Loose (MD) Medium Dense (D) Dense (VD) Very Dense	(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (VST) Very Stiff (H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA14
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.45 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: CONCRETE			No odours or staining	0.00
		0	HA14_0.23		FILL Clay with crushed rock and fine sands, grey with orange and brown mottling, soft, medium plasticity.			No odours or staining	0.22
		0	HA14_0.4		FILL Fine sands and rock, orange and brown, angular rock fragments.			No odours or staining	0.40
-1.0					End of Borehole at 0.45m				0.45

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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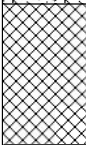
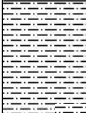
BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA17

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.3 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface:					
						CONCRETE Concrete slab 120mm			No odours or staining	0.00
						FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.12
						BEDROCK Shale, grey with layering, flaky texture.			No odours or staining	0.22
0.5			HA17_0.25							
					End of Borehole at 0.3m					0.30
1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(VD) Very Dense
PD(x) Percussion Down Hole	H Hand Augering			(ST) Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(VST) Very Stiff
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA18

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.55 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				 			No odours or staining	0.00	
						FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.20
		0.3	HA18_0.35			FILL Clay, brown, medium-high plasticity, rock fragments, wet, some water in borehole.			No odours or staining	0.35
		1	HA18_0.5			FILL Clay, brown-light brown, with fine sand and some large-medium gravel, medium plasticity, water in borehole.			No odours or staining	0.50
-1.0					End of Borehole at 0.55m				0.55	

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency: Granular Soils	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(VD) Very Dense
PD(x) Percussion Down Hole	H Hand Augering			(ST) Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(VST) Very Stiff
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA19

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.96 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: CONCRETE Concrete slab 140mm			No odours or staining	0.00
					FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.14
		0.5	HA19_0.24		FILL Brown/black sandy clay, light yellow mottling, rock fragments, medium plasticity.			No odours or staining	0.24
		0.2	HA19_0.4		CLAY Grey with yellow/red mottle, stiff, dry, medium plasticity.			No odours or staining	0.40
		0.5	HA19_0.5						
		0.3	HA19_0.9		CLAY Dark red with grey mottle, very stiff, medium plasticity, ironstone fragments.			No odours or staining	0.90
					End of Borehole at 0.96m				0.96

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA23
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.62 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface: CONCRETE Concrete slab 150mm			No odours or staining	0.00	
					FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.15	
		0.1	HA23_0.3		sandy CLAY Grey with mottled yellow, fragments of weathered rock, low plasticity.			No odours or staining	0.30	
		0.3	HA23_0.5		sandy CLAY Grey with weathered rock, shale fragments, low-medium plasticity			No odours or staining	0.50	
					End of Borehole at 0.62m				0.62	

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA24

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.56 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface:					
						CONCRETE Concrete slab 130mm			No odours or staining	0.00
						FILL Crushed rock, coarse bluestone fragments (ballast).			No odours or staining	0.13
		0.2	HA24_0.4			CLAY Brown with red mottle, large fill rocks, medium plasticity, soft-firm, rock fragments.			No odours or staining	0.40
						End of Borehole at 0.56m				0.56
-1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA25

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 22/03/2011 to: 22/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.53 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface:					
					CONCRETE Concrete slab 100mm			No odours or staining	0.00	
					FILL Crushed rock, black with fine-medium sand.			No odours or staining	0.10	
		0.1	HA25_0.2		CLAY Grey with red mottle, stiff, medium plasticity, rock fragments.			No odours or staining	0.20	
		0.1	HA25_0.5		CLAY Grey with red mottle, stiff, low plasticity, rock fragments, dry.			No odours or staining	0.50	
					End of Borehole at 0.53m				0.53	

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard




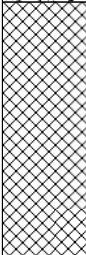
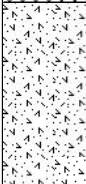
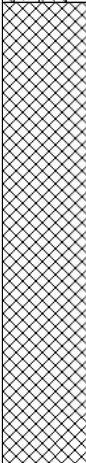
BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA26

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.78 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:				
						CONCRETE Concrete slab 140mm			No odours or staining	0.00
						FILL Yellow/grey sand, fine grain, moist-wet.			No odours or staining	0.14
						CONCRETE Concrete slab 130mm			No odours or staining	0.32
		0.4	HA26_0.45			FILL Clay, grey with red mottle, rock fragments, moist, medium plasticity.			No odours or staining	0.45
						End of Borehole at 0.78m				0.78
-1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:		Consistency:		Cohesive Soils	
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(D) Dense	(VS) Very Soft	(ST) Stiff	
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(VD) Very Dense	(S) Soft	(VST) Very Stiff	
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense		(F) Firm	(H) Hard	
PD(x) Percussion Down Hole	H Hand Augering						

Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA27

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.45 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:				
						CONCRETE Concrete slab 130mm			No odours or staining	0.00
						FILL Sandy clay, moist, medium plasticity, brown with some red and orange and grey mottling, rocks, soft.			Pieces of plastic and concrete at surface	0.13
						CONCRETE Concrete slab 50mm			No odours or staining	0.23
						FILL Sandy clay, dark brown, with fine-medium gravel, rock fragments, low-medium plasticity, moist.			No odours or staining	0.28
						CONCRETE Concrete slab 430mm+, limit of concrete corer equipment.			No odours or staining	0.48
						End of Borehole at 0.91m				0.91
-1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency: Granular Soils	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA28
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.54 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)	
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water							
0.0	HA							Ground Surface: CONCRETE	No odours or staining	0.00	
		0	HA28_0.22			CLAY Dark brown, moist, soft to firm, medium plasticity, rock fragments, some orange and red mottling, becoming lighter and drier with depth			Timber pieces at 0.22m		0.21
		0	HA28_0.5			CLAY Grey with orange mottling, soft, low to medium plasticity			No odours or staining		0.50
					End of Borehole at 0.54m						0.54

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA29

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.9 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Graphic Log					
0.0	HA				Ground Surface: CONCRETE Concrete slab 130mm			Orange plastic sheeting and PVC Pipe (25mm) under concrete slab	0.00
		0	HA29_0.13		FILL Clayey sand, dark brown/black, fine-medium grain with fine gravels.			No odours or staining	0.13
		0	HA29_0.3		FILL Clay, grey with mottled orange/red with some fine sand, medium plasticity, slightly moist, firm, compacted.			No odours or staining	0.18
		0	HA29_0.6		FILL Clay, grey with mottled orange/red with some fine sand, low- medium plasticity, slightly moist, firm, compacted.			No odours or staining	0.42
		0	HA29_0.9		sandy CLAY Grey/red with orange mottle, fine-medium sand, low plasticity, dry.			No odours or staining	0.70
					End of Borehole at 0.9m				0.90

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA30
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.49 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:			No odours or staining	0.00
		0	HA30_0.16			FILL Coarse gravels <5cm, grey clay surface, wet.			No odours or staining	0.14
						FILL Clay, yellow-brown with fine-medium sand, rock fragments, fine-medium gravels, low plasticity, slightly moist.			No odours or staining	0.16
		0	HA30_0.35			FILL Clay, yellow-brown with fine sand, low plasticity, stiff, dry, compacted.			No odours or staining	0.35
		0	HA30_0.45							
1.0						End of Borehole at 0.49m				0.49

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA31

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.8 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: CONCRETE Concrete slab 120mm			Black plastic sheeting under concrete slab	0.00
		0.2	HA31_0.12		FILL Clayey sand, brown-black, fine-medium grain, fine gravels, rock fragments.			No odours or staining	0.12
		0.2	HA31_0.2 (QA03)		FILL Clayey sand, red-dark brown, medium grain, rock fragments, slightly moist-dry.			Metallic glitter speckles	0.20
		0.2	HA31_0.3						
		0.1	HA31_0.5		COMPACTED FILL Sandy clay, grey with red/orange mottle, low plasticity, stiff, dry, fine sand.			No odours or staining	0.40
		0.2	HA31_0.7		COMPACTED FILL Sandy clay, grey with yellow mottle, low-medium plasticity, firm, slightly moist, fine sand.			No odours or staining	0.70
					End of Borehole at 0.9m				0.90

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA32

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 1.1 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: CONCRETE Concrete slab 120mm			Clear plastic sheeting under concrete slab.	0.00
		0	HA32_0.12		FILL Clayey sand, dark grey with yellow sand particles, fine-medium grain, crushed rocks.			No odours or staining	0.12
		0	HA32_0.3		COMPACTED FILL Sandy clay, grey with yellow/orange mottle, fine sand grains, low plasticity, firm, some dark grey intrusions.			No odours or staining	0.20
		0	HA32_0.4		COMPACTED FILL Sandy clay, grey with orange/red mottle, firm fine-medium sand, low plasticity, dry-slightly moist.			No odours or staining	0.37
		0	HA32_0.6		COMPACTED FILL Sandy clay, red/grey, firm, fine sand, low plasticity, slightly moist- dry.			No odours or staining	0.55
		0	HA32_0.7		COMPACTED FILL Clay, grey with red/yellow mottle, low plasticity, slightly moist to dry, firm, some fine sand, rock fragments..			No odours or staining	0.70
1.0		0	HA32_1.0		CLAY Grey with red/yellow mottle, low plasticity, slightly moist-dry, stiff, some fine sand, rock fragments.			No odours or staining	1.00
					End of Borehole at 1.1m Grey with red/yellow mottle, low plasticity, slightly moist to dry, firm, some fine sand, rock fragments..				1.10

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA33

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.8 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:				0.00
		70.1	HA33_0.1			TOPSOIL Black-dark brown, clayey sand, organic matter, fine-medium sands, fine gravels, rootlets.			No odours or staining	
		10.3	HA33_0.4 (QA06)			CLAY Red and grey, moist, low-medium plasticity, some fine sand, some rootlets.			No odours or staining	0.40
		0.8	HA33_0.7			CLAY Grey with red mottle, low-medium plasticity, shale fragments, fine sands.			No odours or staining	0.70
-1.0						End of Borehole at 0.8m				0.80

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash PSC(x) Percussion Simultaneous Casing RT(x) Rotary Triple Tube AS Augering - Solid Flight PC(x) Percussion Cable Tool AH Augering - Hollow Flight PD(x) Percussion Down Hole H Hand Augering Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA34
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 2 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface:					
					CONCRETE Concrete slab 150mm			Orange plastic sheeting under concrete slab.	0.00	
		0	HA34_0.15		FILL Clayey sand, brown-black, fine-medium grain, fine gravels.			No odours or staining	0.15	
		0	HA34_0.2					No odours or staining	0.20	
					COMPACTED FILL Clay, grey with mottled orange/red with some fine sand, medium plasticity, slightly moist, firm.					
		0.5	HA34_0.45		COMPACTED FILL Clay, dark grey with mottled red, soft, medium-high plasticity.			Possible odour, no staining	0.40	
		0.2	HA34_0.5		COMPACTED FILL Clay, grey with mottled orange/red, medium-high plasticity, firm, some fine sands, slightly moist.			No odours or staining	0.50	
1.0										
					COMPACTED FILL Sandy clay, grey with mottled orange/red, low plasticity, slightly moist-dry, firm, fine-medium sands.			Possible odour, no staining	1.30	
		0.1	HA34_1.6							
2.0		0	HA34_2.0							
					End of Borehole at 2.0m				2.00	

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:	Moisture Abbreviations:	Consistency: Granular Soils	Cohesive Soils
RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	PSC(x) Percussion Simultaneous Casing AS Augering - Solid Flight AH Augering - Hollow Flight H Hand Augering	(D) Dry M Moist W Wet (VL) Very Loose (L) Loose (MD) Medium Dense (D) Dense (VD) Very Dense	(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (VST) Very Stiff (H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA35

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 1.3 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface:				
					CONCRETE Concrete slab 140mm			Orange plastic sheeting under concrete slab.	0.00
		0	HA35_0.15		FILL Clayey sand, brown-black, fine-medium grain, fine gravels.			No odours or staining	0.14
		0	HA35_0.22		FILL Clayey sand, yellow, fine-medium sand, some rock fragments, slightly moist.			No odours or staining	0.22
					COMPACTED FILL Clay, grey with orange/red mottle, stiff, low plasticity, dry.				
		0	HA35_0.4						
					COMPACTED FILL Clay, grey with lots of orange/red mottle, stiff, low plasticity, dry.			No odours or staining	0.90
1.0		0	HA35_1.0						
			HA35_1.3						
					End of Borehole at 1.3m				1.30

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(F) Firm
				(ST) Stiff
				(VST) Very Stiff
				(H) Hard





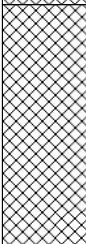
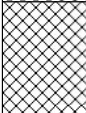
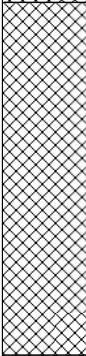
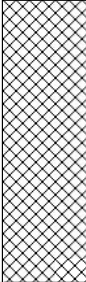
BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA36

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 23/03/2011 to: 23/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.9 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Graphic Log					
0.0	HA				Ground Surface:				
					CONCRETE Concrete slab 140mm			Orange plastic sheeting under concrete slab.	0.00
		0	HA36_0.14		FILL Clayey sand, brown-black, fine-medium, fine gravels, rock fragments.			No odours or staining	0.14
		0	HA36_0.2		COMPACTED FILL Sandy clay, yellow-brown with red/orange mottling, low plasticity, dry, firm.			No odours or staining	0.20
		0	HA36_0.37		COMPACTED FILL Clay, grey with black intrusions, low plasticity, stiff, dry, some fine sand.			No odours or staining	0.37
		0	HA36_0.5		COMPACTED FILL Clay, grey with red mottle, low plasticity, stiff, dry, some fine sand.			No odours or staining	0.45
		0	HA36_0.7		COMPACTED FILL Sandy clay, yellow-brown, low plasticity, very stiff, dry, some fine sand.			No odours or staining	0.70
					End of Borehole at 0.9m				0.90

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency: Granular Soils	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA37

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 1 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:				
						CONCRETE			No odours or staining	0.00
		0.1	HA37_0.15			FILL Clayey sand, crushed rock, dark brown and black, slightly moist, metallic specks			Metallic specks throughout	0.14
		0	HA37_0.3			FILL Clay, grey with mottled red and orange, fine sands, rock fragments, medium plasticity, slightly moist, increasing in sand with depth			No odours or staining	0.25
						COMPACTED FILL Clay, grey and red, slightly moist, medium plasticity, some fine sand			No odours or staining	0.90
		0	HA37_1.0							
1.0						End of Borehole at 1.0m				1.00

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA39

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.6 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface:			No odours or staining	0.00
		0	HA39_0.1			FILL Clayey sand, brown, loose, dry, rocks, becoming light brown with depth				
		0	HA39_0.6							
						End of Borehole at 0.6m				0.60
-1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(ST) Stiff
PD(x) Percussion Down Hole	H Hand Augering			(VST) Very Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA40
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.9 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: TOPSOIL Black-dark brown, clayey sand, organic matter, fine-medium sands, fine gravels, rootlets.			No odours or staining	0.00
		0.1	HA40_0.1		FILL Sandy clay, brown, low plasticity, slightly moist, fine gravels, fine sand, rootlets.			No odours or staining	0.25
		20.4	HA40_0.3						
		22.7	HA40_0.5		sandy CLAY Dark grey with red mottle, fine sand, rock fragments and gravel, low plasticity, slightly moist, rootlets.			No odours or staining	0.40
		41.1	HA40_0.9		sandy CLAY Grey with white streaks, fine sands, low plasticity, slightly moist.			No odours or staining	0.80
					End of Borehole at 0.9m				0.90

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA41

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.75 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA				Ground Surface: CONCRETE			No odours or staining	0.00	
		0	HA41_0.21		FILL Clayey sand, grey and brown, crushed rocks and concrete, fine sands			Pieces of concrete at surface	0.20	
		0	HA41_0.5							
		0	HA41_0.62		FILL Sandy clay, grey with orange and brown mottling, dry, low plasticity, rocks, fine sands			No odours or staining	0.62	
					End of Borehole at 0.75m				0.75	
-1.0										

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(D) Dense
PD(x) Percussion Down Hole	H Hand Augering			(VD) Very Dense
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(ST) Stiff
				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA42
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 24/03/2011 to: 24/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.68 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: E.Swanson Checked by: A. Tilling
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DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
0.0	HA					Ground Surface: TOPSOIL			No odours or staining	0.00
0.3			HA42_0.3			FILL Sandy clay, dark brown, roots, rocks, timber fragments, moist, loose, fine to medium sands, low plasticity, soft			No odours or staining	0.20
1.7			HA42_0.5			FILL Clay, grey with orange and red mottling, rocks, soft, medium plasticity			No odours or staining	0.50
			HA42_0.68							
						End of Borehole at 0.68m				0.68

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	PSC(x) Percussion Simultaneous Casing AS Augering - Solid Flight AH Augering - Hollow Flight H Hand Augering	Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: HA44

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Hand Augering Total Depth (m): 0.5 Diameter (mm):	Easting: Northing: Grid Ref: Elevation: N/A Logged by: T.Nham Checked by: A. Tilling
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DRILLING					LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water					
0.0	HA				Ground Surface: BITUMEN Bitumen 50mm			No odours or staining	0.00
					CONCRETE Concrete slab 170mm			No odours or staining	0.05
					FILL Crushed rock, black roadbase.			No odours or staining	0.22
		18.6	HA44_0.27 (QA10)		CLAY Grey, low-medium plasticity, rock fragments, weathered shale fragments, moist, some fine sand.			No odours or staining	0.27
		3.6	HA44_0.35		CLAY Grey with red ironstone intrusions, low plasticity, fine sand, slightly moist.			No odours or staining	0.35
1.0					End of Borehole at 0.5m				0.50


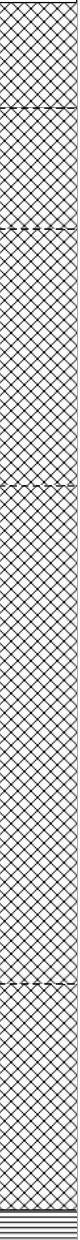
NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(VST) Very Stiff
PD(x) Percussion Down Hole	H Hand Augering			(F) Firm
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				

CLIENT: **Pacific Brands** JOB No.: **2118504** COMMENCED: **6/5/09**
 PROJECT: **Contamination Assessment** COMPLETED: **6/5/09**
 LOCATION: **Wentworthville, NSW** LOGGED BY: **A Doran**
 CONTRACTOR: **N/A** EQUIPMENT: **Truck Mounted Drill Rig** CHECKED BY: **A Dobson**

R.L. @ TOC (m AHD): X-COORDINATE: Y-COORDINATE: TOTAL DEPTH (m): **8.2**
 VERTICAL DATUM: **Ground Level** HORIZONTAL DATUM: DIAMETER (mm):

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)	
0						0.00	Ground Surface				0	
	SF	GS		BH4/0.1-0.3	N/A		Fill Sandy clay with gravels, red / brown and grey, moist	Blue metal and possible charcoals				
	SF	GS		BH4/0.4-0.6								
	SF	GS		BH4/0.8-1.0		0.70	Fill Clay with some gravels, grey and brown, soft, moist to wet					1
	SF	GS		BH4/1.8-2.0		1.50	Fill Sandy clay, red and brown, frequent gravels, moist, likely reworked					2
	SF	GS		BH4/2.8-3.0								3
	SF	GS		BH4/3.8-4.0		3.20	Fill Sand and gravel, black, ash, slag and some clay inclusions, soft, wet					4
	SF	GS		BH4/4.8-5.0								5
						6.50	Fill Clay, some ash, sand and slag, grey and brown, soft, wet					7
						8.00	Weathered Shale Grey, tan, orange and brown, some clay End of borehole at 8.2m Desired depth			8		
										9		

Method	Sample Type	Other	Monitoring Well Materials
SF = Solid Flight Auger	GS = Grab Sample	SWL = Standing Water Level	1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand
HF = Hollow Flight Auger	SS = Split Spoon Sampler	R.L. @ TOC = Reduced Level at Top of Casing	2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug
PT = Push Tube		mAHD = metres Australia Height Datum	3 = Well casing, UPVC, Class 18 50mm diameter
SPT = Standard Penetration Test		PID = Photoionisation Detector	4 = Graded sand (filter pack)
DHH = Down Hole Hammer (Tubex)		MGA = Map Grid of Australia	

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 6/5/09
PROJECT: Contamination Assessment		COMPLETED: 6/5/09
LOCATION: Wentworthville, NSW	EQUIPMENT: Truck Mounted Drill Rig	LOGGED BY: A Doran
CONTRACTOR: N/A		CHECKED BY: A Dobson
R.L. @ TOC (m AHD):	X-COORDINATE:	Y-COORDINATE:
VERTICAL DATUM: Ground Level	HORIZONTAL DATUM:	TOTAL DEPTH (m): 8.5
		DIAMETER (mm):

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)
0	SF	GS		BH5/0.0-0.2	N/A	0.00	Ground Surface Fill Silty sand with mixed gravels, occasional clay lenses, brown				0
	SF	GS		BH5/0.3-0.5							
	SF	GS		BH5/0.8-1.0		0.60	Fill Silty sand with mixed gravels, increasing clay, grey / brown				1
	SF	GS		BH5/1.8-2.0		1.70	Fill Sandy clay, reworked, some gravels, orange, brown and grey				2
	SF	GS		BH5/2.8-3.0							3
	SF	GS		BH5/3.8-4.0							4
	SF	GS		BH5/4.8-5.0				Metal wire at 4.8m			5
	SF	GS		BH5/5.8-6.0				Glass at 5.8m			6
						7.00	Clay Orange, brown and grey mottled, soft to firm, moist to wet				7
						8.50	End of borehole at 8.5m Desired depth				9

Method SF = Solid Flight Auger HF = Hollow Flight Auger PT = Push Tube SPT = Standard Penetration Test DHH = Down Hole Hammer (Tubex)	Sample Type GS = Grab Sample SS = Split Spoon Sampler	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing mAHD = metres Australia Height Datum PID = Photoionisation Detector MGA = Map Grid of Australia
Monitoring Well Materials 1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand 2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug 3 = Well casing, UPVC, Class 18 50mm diameter 4 = Graded sand (filter pack)		



CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 6/5/09
PROJECT: Contamination Assessment		COMPLETED: 6/5/09
LOCATION: Wentworthville, NSW	EQUIPMENT: Truck Mounted Drill Rig	LOGGED BY: A Doran
CONTRACTOR: N/A		CHECKED BY: A Dobson
R.L. @ TOC (m AHD):	X-COORDINATE:	Y-COORDINATE:
VERTICAL DATUM: Ground Level	HORIZONTAL DATUM:	TOTAL DEPTH (m): 8.5
		DIAMETER (mm):

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)
0	SF	GS		GW1/0.0-0.2	N/A	0.00	Ground Surface Fill Silty sand, brown, gravels and minor charcoal, moist	Asbestos fragment collected from surface			0
	SF	GS		GW1/0.3-0.5							
	SF	GS		GW1/0.8-1.0				Large metal bolt, brick and glass at 0.9m			
	SF	GS		GW1/1.8-2.0							
	SF	GS		GW1/2.8-3.0		2.40	Fill Ash, sand and slag, light grey, charcoals present				
	SF	GS		GW1/3.8-4.0		3.20	Fill Reworked sandy clay, light brown and brown, mixed gravels				
	SF	GS		GW1/4.8-5.0		4.30	Clay Brown and tan Weathered Shale Tan and brown, some sand and clay				
	SF	GS				5.30	Weathered Shale Grey, some clay, red ironstone lenses, moist				
						7.00	Shale Grey, hard				
						8.50	End of borehole at 8.5m Refusal on rock				

Method SF = Solid Flight Auger HF = Hollow Flight Auger PT = Push Tube SPT = Standard Penetration Test DHH = Down Hole Hammer (Tubex)	Sample Type GS = Grab Sample SS = Split Spoon Sampler	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing mAHD = metres Australia Height Datum PID = Photoionisation Detector MGA = Map Grid of Australia	Monitoring Well Materials 1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand 2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug 3 = Well casing, UPVC, Class 18 50mm diameter 4 = Graded sand (filter pack)
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CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 6/5/09
PROJECT: Contamination Assessment		COMPLETED: 6/5/09
LOCATION: Wentworthville, NSW	EQUIPMENT: Truck Mounted Drill Rig	LOGGED BY: A Doran
CONTRACTOR: N/A		CHECKED BY: A Dobson

R.L. @ TOC (m AHD):	X-COORDINATE:	Y-COORDINATE:	TOTAL DEPTH (m): 5.9
VERTICAL DATUM: Ground Level	HORIZONTAL DATUM:	DIAMETER (mm):	

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)	
0						0.00	Ground Surface Fill Sandy clay with gravels, brown, grey and orange, moist	Green / blue staining at surface, blue metal gravels			0	
	SF	GS		GW2/0.2-0.4	N/A						0	
	SF	GS		GW2/0.5-0.7							1	
1	SF	GS		GW2/1.0-1.2							1	
						1.30	Fill Clay with gravels, grey and black, moist to wet					1
						1.70	Clay Grey and orange with brown mottles, firm to stiff, moist					2
2	SF	GS		GW2/2.0-2.2							2	
											3	
3	SF	GS		GW2/3.0-3.2							3	
						3.40	Clay / Weathered Shale Tan and brown, shale and sandy clay, moist					4
4	SF	GS		GW2/4.0-4.2					4			
						4.50	Shale Grey, hard			5		
5										5		
6						5.90	End of borehole at 5.9m Refusal on rock			6		
7										7		
8										8		
9										9		


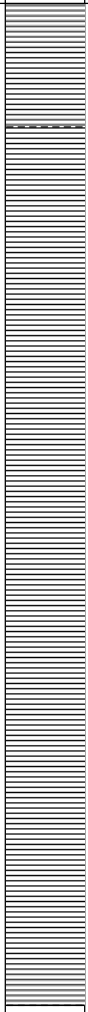
Method SF = Solid Flight Auger HF = Hollow Flight Auger PT = Push Tube SPT = Standard Penetration Test DHH = Down Hole Hammer (Tubex)	Sample Type GS = Grab Sample SS = Split Spoon Sampler	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing mAHD = metres Australia Height Datum PID = Photoionisation Detector MGA = Map Grid of Australia	Monitoring Well Materials 1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand 2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug 3 = Well casing, UPVC, Class 18 50mm diameter 4 = Graded sand (filter pack)
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CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 5/5/09
PROJECT: Contamination Assessment		COMPLETED: 5/5/09
LOCATION: Wentworthville, NSW		LOGGED BY: A Doran
CONTRACTOR: N/A	EQUIPMENT: Truck Mounted Drill Rig	CHECKED BY: A Dobson
R.L. @ TOC (m AHD):	X-COORDINATE:	Y-COORDINATE:
VERTICAL DATUM: Ground Level	HORIZONTAL DATUM:	TOTAL DEPTH (m): 15.5
		DIAMETER (mm):

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)
0	SF	GS		GW4/0.0-0.2	N/A	0.00	Ground Surface Fill Silty sand, brown, some intermixed grey and red mottled clay, minor gravels, moist				0
	SF	GS		GW4/0.3-0.5							
	SF	GS		GW4/0.8-1.0							
	SF	GS		GW4/1.8-2.0							
	SF	GS		GW4/2.8-3.0							
	SF	GS		GW4/3.8-4.0							
						4.50	Clay / Weathered Shale Orange and brown sandy clay with red / brown weathered shale				5
						5.20	Shale Intermittant bands of hard and soft shale, grey and moist				6
											7
											8
											9

Method SF = Solid Flight Auger HF = Hollow Flight Auger PT = Push Tube SPT = Standard Penetration Test DHH = Down Hole Hammer (Tubex)	Sample Type GS = Grab Sample SS = Split Spoon Sampler	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing mAHD = metres Australia Height Datum PID = Photoionisation Detector MGA = Map Grid of Australia
Monitoring Well Materials 1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand 2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug 3 = Well casing, UPVC, Class 18 50mm diameter 4 = Graded sand (filter pack)		

CLIENT: Pacific Brands	JOB No.: 2118504	COMMENCED: 5/5/09
PROJECT: Contamination Assessment		COMPLETED: 5/5/09
LOCATION: Wentworthville, NSW		LOGGED BY: A Doran
CONTRACTOR: N/A	EQUIPMENT: Truck Mounted Drill Rig	CHECKED BY: A Dobson
R.L. @ TOC (m AHD):	X-COORDINATE:	Y-COORDINATE:
VERTICAL DATUM: Ground Level	HORIZONTAL DATUM:	TOTAL DEPTH (m): 15.5
		DIAMETER (mm):

Depth (m)	Method	Sample Type	Water	Sample Number	PID (ppm)	Depth/Elevation (m)	DESCRIPTION USCS Soil Group Symbol, colour, soil types, particle characteristics or fines plasticity, secondary and minor components.	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Piezometer Details	Graphic Log	Depth (m)
10						9.80	Shale Grey, hard shale				10
15						15.50	End of borehole at 15.5m Refusal on rock				15

Method SF = Solid Flight Auger HF = Hollow Flight Auger PT = Push Tube SPT = Standard Penetration Test DHH = Down Hole Hammer (Tubex)	Sample Type GS = Grab Sample SS = Split Spoon Sampler	Other SWL = Standing Water Level R.L. @ TOC = Reduced Level at Top of Casing mAHD = metres Australia Height Datum PID = Photoionisation Detector MGA = Map Grid of Australia	Monitoring Well Materials 1 = Well Screen, UPVC Class 18, 50mm diameter, Graded Sand 2 = Well casing, UPVC Class 18, 50mm diameter, Bentonite Plug 3 = Well casing, UPVC, Class 18 50mm diameter 4 = Graded sand (filter pack)	
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BOREHOLE LOG

ENVIRONMENTAL - GROUNDWATER

Bore No.: GW6

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Air Rotary with PCD bit Total Depth (m): 19 Diameter (mm):	Easting: 310932.81 Northing: 6257353.26 Grid Ref: MGA56 Collar RL: 66.25 Elevation: 66.41 Logged by: A. Tilling Checked by: A. Tilling
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B.C.L. No.: N/A Casing: Class 18 UPVC, 50mm diameter Screen: Class 18 UPVC, 50mm diameter Screen Slot Size (mm): 0.4

DRILLING					Piezometer Details	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol): Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water							
0.0					Cement	Ground Surface:					0.00
0.0 - 3.0					Backfill	FILL Reworked natural clay with rock fragments, pale brown, dry				No odours or staining	0.00
3.0 - 7.5						WEATHERED ROCK Weathered rock, pale brown.				No odours or staining	3.00
7.5 - 19.0					Mylonite	BEDROCK Shale and fine sandstone, grey				No odours or staining	7.50
12.0 - 19.0					Sand						
19.0					Screen	End of Borehole at 19m					19.00

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose (D) Dense	(VS) Very Soft (ST) Stiff
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose (VD) Very Dense	(S) Soft (VST) Very Stiff
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(F) Firm (H) Hard
PD(x) Percussion Down Hole	H Hand Augering			

Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.



BOREHOLE LOG

ENVIRONMENTAL - GROUNDWATER

Bore No.: GW7

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Air Rotary with PCD bit Total Depth (m): 18 Diameter (mm):	Easting: 310999.79 Northing: 6257494.7 Grid Ref: MGA56 Collar RL: 60.94 Elevation: 61.03 Logged by: A. Tilling Checked by: A. Tilling
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B.C.L. No.: N/A Casing: Class 18 UPVC, 50mm diameter Screen: Class 18 UPVC, 50mm diameter Screen Slot Size (mm): 0.4

DRILLING					Piezometer Details	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol): Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water							
0.0						Ground Surface:				No odours or staining	0.00
1.0						CLAY Grey and brown and red, dry, some fine sands				No odours or staining	1.00
2.0						WEATHERED ROCK Weathered rock, pale brown					
4.0						BEDROCK Shale and fine sandstone, grey				No odours or staining	4.00
18.0						End of Borehole at 18m					18.00

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash PSC(x) Percussion Simultaneous Casing RT(x) Rotary Triple Tube AS Augering - Solid Flight PC(x) Percussion Cable Tool AH Augering - Hollow Flight PD(x) Percussion Down Hole H Hand Augering Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		Moisture Abbreviations: D Dry M Moist W Wet	Consistency: Granular Soils (VL) Very Loose (D) Dense (L) Loose (VD) Very Dense (MD) Medium Dense	Cohesive Soils (VS) Very Soft (ST) Stiff (S) Soft (VST) Very Stiff (F) Firm (H) Hard
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BOREHOLE LOG

ENVIRONMENTAL - GROUNDWATER

Bore No.: GW8

Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 25/03/2011 to: 25/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Air Rotary with PCD bit Total Depth (m): 14.9 Diameter (mm):	Easting: 311025.75 Northing: 6257305.15 Grid Ref: MGA56 Collar RL: 59.12 Elevation: 59.19 Logged by: A. Tilling Checked by: A. Tilling
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B.C.L. No.: N/A Casing: Class 18 UPVC, 50mm diameter Screen: Class 18 UPVC, 50mm diameter Screen Slot Size (mm): 0.4

DRILLING					Piezometer Details	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol): Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water							
0.0						Ground Surface:					0.00
0.0 - 0.5					Cement	ASPHALT				No odours or staining	
0.5 - 1.0						FILL Light grey, crushed rock road base, with fine sands, dry.				No odours or staining	1.00
1.0 - 2.0						CLAY Grey with orange/red mottling, low to medium plasticity, dry, firm.					
2.0 - 5.0						WEATHERED ROCK Weathered shale rock with clay, pale brown.					
5.0 - 14.9						BEDROCK Shale and fine sandstone, grey				No odours or staining	5.00
14.9						End of Borehole at 14.9m					14.90

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations:		Moisture Abbreviations:	Consistency:	Cohesive Soils
RW(x) Rotary Wash	PSC(x) Percussion Simultaneous Casing	D Dry	(VL) Very Loose	(VS) Very Soft
RT(x) Rotary Triple Tube	AS Augering - Solid Flight	M Moist	(L) Loose	(S) Soft
PC(x) Percussion Cable Tool	AH Augering - Hollow Flight	W Wet	(MD) Medium Dense	(VD) Very Dense
PD(x) Percussion Down Hole	H Hand Augering			(ST) Stiff
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.				(VST) Very Stiff
				(F) Firm
				(H) Hard



BOREHOLE LOG

ENVIRONMENTAL - GROUNDWATER

Bore No.: GW9
Page: 1 of 1

Client: Pacific Brands Limited Project: Wentworthville ESA Project No.: 2120474 Location: 190 Dunmore St, Wentworthville, NSW Date Drilled: 29/03/2011 to: 29/03/2011	Drill Co: Terratest Driller: Terratest Rig Type: Air Rotary with PCD bit Total Depth (m): 13.1 Diameter (mm):	Easting: 311223.87 Northing: 6257553.8 Grid Ref: MGA56 Collar RL: 54.07 Elevation: 54.17 Logged by: E. Swanson Checked by: A. Tilling
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B.C.L. No.: N/A Casing: Class 18 UPVC, 50mm diameter Screen: Class 18 UPVC, 50mm diameter Screen Slot Size (mm): 0.4

DRILLING					Piezometer Details	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol): Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water							
0.0						Ground Surface:					0.00
0.0 - 0.5					Cement	ASPHALT				No odours or staining	
0.5 - 1.2						FILL Light grey, crushed rock road base, with fine sands, dry.				No odours or staining	1.20
1.2 - 2.6						CLAY Grey/orange/red, low plasticity, dry to slightly moist, rock fragments				No odours or staining	1.20
2.6 - 3.0						WEATHERED ROCK Weathered shale rock with clay, grey/red/brown.				No odours or staining	2.60
3.0 - 13.1						BEDROCK Shale and fine sandstone, grey				No odours or staining	2.60
13.1						End of Borehole at 13.1m					13.10

NOTES:

GHD Soil Classifications: The GHD Soil Classification is based on Australian Standards AS 1726-1993. This log is not intended for geotechnical purposes.

Drilling Abbreviations: RW(x) Rotary Wash RT(x) Rotary Triple Tube PC(x) Percussion Cable Tool PD(x) Percussion Down Hole Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	Percussion Simultaneous Casing AS Augering - Solid Flight AH Augering - Hollow Flight H Hand Augering	Moisture Abbreviations: D Dry M Moist W Wet
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Consistency: Granular Soils (VL) Very Loose (L) Loose (MD) Medium Dense	(D) Dense (VD) Very Dense	Cohesive Soils (VS) Very Soft (S) Soft (F) Firm (ST) Stiff (VST) Very Stiff (H) Hard
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Appendix B
Groundwater Sampling Purge Sheets

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: **2120474**
 Project Name: **Pacific Brands Wentworthville ESA**
 Client: **Pacific Brands**
 Site: **Wentworthville**
 Well Condition (i.e road box, locked etc): **Good**
 Depth to Water Table Pre-purge (from TOC): **4.58 m**
 Depth of PSH (from TOC):
 Depth to Bottom of Casing (BOC) from TOC: **7.28 m**
 Casing Stickup:
 Depth to Water Table Post - purge (from TOC):

Borehole ID: **GW1**
 Sample ID:
 Date: **6/4/11**
 Sampler: **G.II**
 Purge Method: **Micropurge**
 Sample Method:
 Casing Type: **PVC**
 Well Diameter:
 Calculated Bore Volume(L):
 QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
9:49	0.5	—	2.54	5199	5.57	97.9	20.6	alot of glass reeds at top of water column, removed using bailer
9:51	1	5.01	2.1-	5109	5.41	95.4	20.5	
<p>Skid at start of purging = 4.90m micropurge start</p>								
10:19	0.5	5.02	1.21	6163	5.43	97.1	21.3	clear/cloudy no odour or sheen
10:23	0.75	5.11	1.00	6120	5.40	94.8	21.3	
10:27	1	5.23	1.21	6115	5.39	94.1	21.3	
<p>Draw down exceeds 100mm, dewater well using micropurge @ 6cpm</p>								
10:33	2	5.54	0.9	5953	5.30	98.1	21.2	
10:34	3	5.77	0.99	5871	5.24	104.5	21.2	
10:35	4	6.07	1.15	5767	5.08	111.6	21.3	
10:36	5	6.29	0.96	5707	5.07	109.5	21.3	
10:37	6	76.43	0.89	5689	5.14	109.0	21.2	no odour / sheen, cloudy
Post Sample Parameters								

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

CPM
2
1

6/11/11 purge only

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: 2120474
 Project Name: Pacific Brands
 Client: Pacific Brands
 Site: Ventnorthville
 Well Condition (i.e. road box, locked etc): good
 Depth to Water Table Pre-purge (from TOC): 1.66
 Depth of PSH (from TOC): none
 Depth to Bottom of Casing (BOC) from TOC: 3.82
 Casing Stickup: R/BQ
 Depth to Water Table Post - purge (from TOC):

Borehole ID: GW2
 Sample ID: GW2
 Date: 6/14/11
 Sampler: GJL
 Purge Method: Micropurge
 Sample Method:
 Casing Type: UPVC class 70
 Well Diameter: 50mm
 Calculated Bore Volume(L):
 QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	SPC EC (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
SWL = 1.55 after pump submerged Pump on bottom of well								
1:19	0.5	1.63	1.87	908	5.93	-59	24.1	clear, no odor or steam
1:24	0.75	1.75	0.49	896	5.89	-51	24.5	" "
1:28	1	1.85	0.35	886	5.91	-47	24.7	" "
Drawdown excess decided to evacuate well using micropurge								
1:31	2	2.12	0.24	861	5.96	-49	24.7	clear, no odor or steam
1:33	3	2.40	0.21	844	6.06	-61	24.9	" "
1:35	4	2.64	0.16	850	6.07	-66	24.9	" "
1:39	6	3.24	0.23	850	5.88	-58	24.6	" "
1:41	7	3.43	0.13	875	5.87	-67	24.4	" "
no more water produced swl = 3.65 after pump removed								
* Day 2 - Pre-sampling SWL = 2.96m - Not enough water to fill all bottles, the two smallest bottles (not vials) filled using water from bailer.								
Post Sample Parameters - Not enough water to take post purged SWL								

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

CDM
1
1
1
6

Screen 6.5 - 16

8.5 + 15.5 = 24
 MP@12m

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS		Borehole ID
Project Number:	2120474	CW4
Project Name:	Pacific Brands	Sample ID:
Client:	Pacific Brands	Date:
Site:	Wentworthville	Sampler:
Well Condition (i.e road box, locked etc):	Good	Purge Method:
Depth to Water Table Pre-purge (from TOC):	8.51 2.15m	Sample Method:
Depth of PSH (from TOC):	none	Casing Type:
Depth to Bottom of Casing (BOC) from TOC:	15.64	Well Diameter:
Casing Stickup:		Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC):	13.99	QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	SPC (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
2:28	0L SWL	8.35						after purg submerged @ 2:25pm
2:33	0.5	8.63	0.62	12826	6.38	-82	21.1	clear, no odor or screen
2:36	1	8.77	0.40	12846	6.40	-81	21.1	" "
2:39	1.5	8.87	0.39	12853	6.41	-73	21.1	" 3
2:44	2	9.01	0.44	12842	6.41	-73	21.2	" "
		Draw down 0.5m decided to purge/evacuate casing water disposable						
3:07	5	10.13	0.40	12831	6.48	-74	20.6	" "
3:12	9	11.38	1.35	12846	6.50	-72	20.6	cloudy/yellow NOS
3:19	15	12.05	1.35 1.18	12910	6.48	-78	20.6	turbid brown NOS
3:24	20	11.36	1.97	13012	6.50	-86	20.6	" " " increasing S, A
3:31	23	15.05	2.16	13222	6.59	-140	20.6	as above
		end of purging wait for recharge to sample						
A 7.4.11		3:07pm SWL 13.09m						
Post Sample Parameters		13.99	1.82	12896	6.16	107.3	21.2	light brown, cloudy.

Number of Bottles: _____ Comments: _____

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

bailer or pump?

* tubing to 16m.

- Water Quality every couple of bails
- Check using dip meter

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS		Borehole ID
Project Number:	2120474	GW6
Project Name:	Pacific Brands	Sample ID:
Client:	Pacific Brands	Date:
Site:	Wentworthville	Sampler:
Well Condition (i.e road box, locked etc):	Good	Purge Method:
Depth to Water Table Pre-purge (from TOC):	13.6	Sample Method:
Depth of PSH (from TOC):		Casing Type:
Depth to Bottom of Casing (BOC) from TOC:	19.2	Well Diameter:
Casing Stickup:		Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC):	16.09	QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	SpE.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
1:20		SWL was 13.62 m to T.O.C						start @ 2cpm, recharge ≠ pump out rate, drop to 1cpm.
1:21	1	14.12	2.93	19810	6.32	129.5	20.6	Clear to slightly cloudy
1:29	2	14.32	2.75	19783	6.35	129.0	20.8	Clear
1:38	3	14.59	3.24	19665	6.41	124.1	20.2	* Begin evacuating well with bailer
1:58	5	15.60	3.90	19616	6.52	117.4	20.0	Cloudy, brown.
2:02	6.5	15.89	5.57	19815	6.57	110.4	19.6	Cloudy
2:06	7.5	-	7.02	19801	6.73	112.0	19.6	Turbid, light brown.
2:11	8.5	16.78	6.96	19785	6.55	108.9	19.8	" "
2:17	9.5	16.97	4.96	19840	6.63	109.1	19.6	very turbid, brown.
2:23	11.5	17.83	7.35	19794	6.71	110.2	19.6	very turbid, brown
2:29	13.0	18.67	5.15	19744	6.62	108.4	19.6	" " "
7:4.11		SWL before sampling 14.85m.						
Post Sample Parameters			4.61	19723	6.67	131.7	19.8	Turbid, light brown.
			SWL after sampling 16.09					

Number of Bottles: _____ Comments: _____

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

ESVA

pump @ 15m below T.O.C

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: 2120474	Borehole ID: GW7
Project Name: Pacific Brands	Sample ID:
Client: Pacific Brands	Date: 6/4/11
Site: Wentworthville	Sampler: G.I/s
Well Condition (i.e road box, locked etc): Good,	Purge Method: Microprobe
Depth to Water Table Pre-purge (from TOC): 9.31m	Sample Method:
Depth of PSH (from TOC):	Casing Type: PVC
Depth to Bottom of Casing (BOC) from TOC: 18m	Well Diameter:
Casing Stickup:	Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC):	QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	SPC E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
11:25	SWL	9.28	after	pump	submerged			
11:32	1	9.35	40.1	11598	5.82	77.3	20.3	3 cpm, no odour or sheen, cloudy, slightly murky
11:34	2	9.36	6.2	11957	6.03	62.3	19.9	cloudy, no odour/sheen
11:38	3	9.4	0.71	11813	6.03	54.4	19.9	cloudy - turbid
11:41	4	9.38	0.66	11670	6.00	52.7	19.9	turbid "
11:44	5	9.39	0.61	11595	5.97	51.2	19.9	turbid no odour or sheen.
11:47	6	9.38	0.64	11619	5.97	49.2	20.0	cloudy-turbid. no odour or sheen
11:50	7	9.4	0.61	11785	5.85	48.0	19.9	cloudy no odour or sheen
11:54	8	9.39	0.81	11833	5.80	48.3	19.8	slightly cloudy.
11:58	9	9.42	0.89	11828	5.78	48.8	19.9	clear to cloudy.
Post Sample Parameters								
12:28		9.41	3.59	11707	5.71	49.3	19.9	

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

* tubing to 1

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: 210 2120474	Borehole ID: GW8
Project Name: Wentworthville ESA	Sample ID:
Client: Pacific Brands	Date: 6/4/11
Site: Wentworthville	Sampler: E. Swanson
Well Condition (i.e road box, locked etc): Good	Purge Method: Micropurge
Depth to Water Table Pre-purge (from TOC): 8.92	Sample Method: Micropurge
Depth of PSH (from TOC):	Casing Type: PVC
Depth to Bottom of Casing (BOC) from TOC: 14.9	Well Diameter:
Casing Stickup:	Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC): 9:08	QA Collected:

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	^{SPC} E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
4:05	1	9.04	3.29	16908	6.42	139.2	22.8	* 1cpm cloudy, no colour (sheen)
4:15	2	9.02	2.21	16987	6.42	133.0	22.7	clear to cloudy
4:21	2.5	9.02	1.99	17016	6.42	130.4	22.6	cloudy.
4:27	3	9.03	1.47	17146	6.42	119.5	22.5	cloudy
* Increase to 2cpm								
4:33	4	9.10	1.10	17307	6.42	94.0	22.1	cloudy
* Decrease to 1cpm								
4:42	5	9.03	0.92	17504	6.41	66.9	22.4	clear
4:53	6	9.07	0.85	17827	6.38	41.8	22.4	clear
4:57	6.5	9.07	0.80	17874	6.37	38.4	22.4	clear
5:02	7	9.04	0.83	17944	6.37	35.2	22.3	clear
5:06	7.5	9.07	0.82	17988	6.36	33.4	22.3	clear
Post Sample Parameters								
5:45		9.08	2.98	18156	6.35	31.2	22.1	clear

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

Pump at 11m

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: 2120474	Borehole ID: GWR
Project Name: Pacific Brands	Sample ID:
Client: Pacific Brands	Date: 7/4/11
Site: Wentworthville	Sampler: Terry Nham
Well Condition (i.e road box, locked etc): Good	Purge Method: Micropurge
Depth to Water Table Pre-purge (from TOC): 7.17	Sample Method: Micropurge
Depth of PSH (from TOC):	Casing Type: PVC
Depth to Bottom of Casing (BOC) from TOC: 13.09	Well Diameter:
Casing Stickup:	Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC): 7.50	QA Collected:

FIELD PARAMETERS (RECORDED USING)

CPM2

CPM1

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
11:22	0.5	7.25	1.12	8462	6.08	125.6	22.3	Turbid, brown, cloudy
11:25	1	7.32	1.30	8445	6.01	119.8	22.3	--
11:29	2	7.33	0.87	8435	5.96	114.5	22.1	--
11:33	3	7.39	0.74	8452	5.97	109.0	22.1	--
11:42	4	7.34	0.82	8453	5.94	104.7	22.3	--
11:51	5	7.35	1.00	8450	5.90	103.0	22.3	Turbid, light brown, cloudy
12:01 12:01	6	7.37	1.32	8461	5.83	106.2	22.3	--
12:10	7	7.39	1.74	8470	5.78	108.4	22.4	Turbid, cloudy
12:18	8	7.37	1.99	8472	5.71	112.2	22.4	Turbid, less cloudy
12:28	9	7.39	2.37	8473	5.67	112.2	22.3	Cloudy
12:38	10	7.42	2.47	8483	5.64	111.2	22.3	slightly cloudy-clear
12:47	11	7.41	2.77	8495	5.62	111.7	22.4	--
Post Sample Parameters								
1:10	-	7.50	3.30	8503	5.55	118.0	22.0	light brown/cloudy

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

Pump at ~ 7m

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS

Project Number: 2120474	Borehole ID: BH4
Project Name: Pacific Brands ESA	Sample ID: 1-
Client: Pacific Brands	Date: 7/4/11
Site: Wentworthville	Sampler: Terry Nham
Well Condition (i.e road box, locked etc): Good	Purge Method: Micropurge
Depth to Water Table Pre-purge (from TOC): 4.93	Sample Method: Micropurge
Depth of PSH (from TOC):	Casing Type: PVC
Depth to Bottom of Casing (BOC) from TOC: 8.10	Well Diameter:
Casing Stickup:	Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC): 4.93	QA Collected:

FIELD PARAMETERS (RECORDED USING)

CPM
CPM3

JAMP

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
7:38	0.5	4.94	0.59	214.5	6.01	70.4	22.5	Turbid, brown, silty.
7:42	1	4.94	0.66	194.6	5.69	90.3	22.5	1-
7:44	2	4.94	0.69	175.1	5.51	109.9	22.7	1-
7:47	3	4.93	0.60	168.9	5.41	112.3	22.7	Turbid, light brown.
7:50	4	4.93	0.43	165.7	5.37	114.6	22.8	1-
7:53	5	4.93	0.38	165.4	5.34	115.2	22.9	slightly turbid, cloudy.
7:56	7	4.93	0.43	166.4	5.32	115.2	23.0	slightly cloudy, almost clear
8:02	9	4.93	0.51	167.3	5.30	113.7	23.0	clear
8:04	10	4.93	0.50	167.7	5.30	113.2	23.0	clear
8:07	11	4.93	0.46	168.0	5.30	113.0	23.1	1-
8:10	12	4.93	0.45	168.4	5.28	112.5	23.0	1-
8:13	13	4.93	0.45	168.4	5.29	112.5	23.1	1-
8:15	14	4.93	0.47	169.0	5.26	111.2	23.1	1-
Post Sample Parameters								
8:34	-	4.93	0.56	164.0	4.94	152.7	23.1	clear

Number of Bottles:

Comments:

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)

Screen S-S-B.S
Pump @ 7.5m

GROUNDWATER PURGING AND SAMPLING FIELD SHEET



PROJECT DETAILS		Borehole ID
Project Number:	2120470	BHS
Project Name:	Pacific B	Sample ID: BHS
Client:	Pacific Brads	Date: 6/4/11
Site:	Ventworthville	Sampler: GJI
Well Condition (i.e road box, locked etc):	Good	Purge Method: micropurge
Depth to Water Table Pre-purge (from TOC):	4.95	Sample Method:
Depth of PSH (from TOC):	none	Casing Type: PVC class 10
Depth to Bottom of Casing (BOC) from TOC:	3.37	Well Diameter: 50mm
Casing Stickup:	R/Box	Calculated Bore Volume(L):
Depth to Water Table Post - purge (from TOC):		QA Collected: QA2

FIELD PARAMETERS (RECORDED USING)

Time	Volume (L)	Depth to Water from TOC(m)	D.O (mg/L)	E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
4.3	0L	5.02	4.95					after pump submerge
CPM 3	4.17	1	5.02	0.06	333	6.97	-174	21.5 turbid brown NOS
	1							went to the toilet
3	4.30	2	4.99	0.03	330	6.74	-183	21.5 turbid brown NOS getting clearer
3	4.34	3	4.99	0.02	328	6.75	-185	21.5 as above
3	4.38	4	4.99	0.03	328	6.77	-188	21.4 as above
3	4.42	5	4.99	0.02	328	6.81	-194	21.5 clear, NOS
3	4.45	6	5.00	0.02	329	6.83	-197	21.5 clear NOS
3	4.51	8	5.00	0.01	329	6.84	-197	21.5 " "
								sample
3	5.13		5.00	0.22	328	6.59	-147	21.4 " "
3	5.15		5.00	0.02	328	6.67	-167	
Post Sample Parameters								

Number of Bottles: 7x2 Comments: metals filtered

Well Volume Calculation (50mm diameter) 3.8xH (H=height of water column)



Appendix C

Summary Results Tables

Table C1 – Soil Analytical Results

Table C2 – Groundwater Analytical Results

Table C3 – Groundwater Field Parameters

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	BH1	BH3	BH3	BH3	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW3	GW4	GW5	HA04	HA05	HA05	HA06	HA13	HA14					
Sampled Date-Time	6/05/2009	20/05/2009	20/05/2009	20/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	22/03/2011	22/03/2011	22/03/2011	24/03/2011	22/03/2011	24/03/2011					
Sample Depth Range	0.1-0.3	0-0.1	0.5-0.6	0.9-1	0.1-0.3	3.8-4	0-0.2	4.8-5	0-0.2	2.8-3	0.2-0.4	1-1.2	0-0.2	0-0.2	0-0.2	0.4	0.25	0.5	0.5	1	0.23					
Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																					
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	N-nitrosodi-n-propylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Amino Aromatics	1-naphthylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2-naphthylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Diphenylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Anilines	2-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	3-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	4-chloroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	4-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2-methyl-5-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Asbestos	Aniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Asbestos	Asbestos fibres	-				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	BTEX	Benzene	mg/kg	0.5	1 (a)	1 (b)	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
		Ethylbenzene	mg/kg	1	3.1 (a)	50 (b)	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
		Toluene	mg/kg	0.5	1.4 (a)	130 (b)	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
		Xylene (m & p)	mg/kg	2			<2	<2	-	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			
Xylene (o)		mg/kg	1			<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1				
Chlorinated Hydrocarbons	1,1-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	1,2-dibromo-3-chloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	1,2-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	1,3-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,2-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Bromochloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Chloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Explosives	1,3-Dinitrobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,6-dinitrotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Nitrobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Halogenated Benzenes	2-chlorotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	4-chlorotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Bromobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Halogenated Hydrocarbons	Bromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Dichlorodifluoromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,4,5-trichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,4,6-trichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,4-dichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2,6-dichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	2-chlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Herbicides	Pentachlorophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<10	<10	<10				
	Dinoseb	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
Inorganics	Cyanide Total	mg/kg	0.5		500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	-				
	Nitrate (as N)	mg/kg	0.5			-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	20	-				
	Nitrite (as N)	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
	Sulphate	mg/kg	2		2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310	280	-				
	Sulphur as S	mg/kg	10		600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	460	320	-				
Lead	Lead	mg/kg	1	600	300	20	18	-	12	23	180	45	20	35	170	19	25	17	26	18	21	9	13	17	<1	8
MAH	1,2,4-trimethylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	1,3,5-trimethylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Isopropylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	n-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	n-propylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	p-isopropyltoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	sec-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
	Styrene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1				
tert-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1					
Metals	Antimony	mg/kg	7	20 (c)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	Arsenic	mg/kg	4	20	100	18	<4	-	19	39	15	80	10	15	7	5	10	17	9	9	<4	<4	5	8	<4	<4
	Beryllium	mg/kg	1		20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	<1	1	<1	<1	<1
	Cadmium	mg/kg	0.5	3	20	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chromium (hexavalent)	mg/kg	1	1	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	-	-	-	-
	Chromium (III+VI)	mg/kg	1	400	120000	10	12	-	6	13	14	69	4	10	18	11	8	4	8	12	3	5	8	21	3	3
	Cobalt	mg/kg	1		100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	3	6	3	<1	<1
	Copper	mg/kg	1	100	1000	26	43	-	19	49	77	42	34	55	390	47	38	39	37	48	60	22	29	15	<1	17
	Manganese	mg/kg	1	500	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	110	160	64	42	14	5
	Mercury	mg/kg	0.1	1	15	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
	Molybdenum	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1		

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
 Table C1 Soil Analytical Results

LocCode	BH1	BH3	BH3	BH3	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW3	GW4	GW5	HA04	HA05	HA05	HA06	HA13	HA14	
Sampled Date-Time	6/05/2009	20/05/2009	20/05/2009	20/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	22/03/2011	22/03/2011	22/03/2011	24/03/2011	22/03/2011	24/03/2011	
Sample Depth Range	0.1-0.3	0-0.1	0.5-0.6	0.9-1	0.1-0.3	3.8-4	0-0.2	4.8-5	0-0.2	2.8-3	0.2-0.4	1-1.2	0-0.2	0-0.2	0-0.2	0.4	0.25	0.5	0.5	1	0.23	
Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																	
	Endosulfan II	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Endosulfan sulphate	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Endrin	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Endrin aldehyde	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	g-BHC (Lindane)	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Heptachlor	mg/kg	0.1		10	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Heptachlor epoxide	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Hexachlorobenzene	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Methoxychlor	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<1	<1	<1	-
	Organophosphorous Pesticides	Bromophos-ethyl	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlorpyrifos-methyl		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Diazinon		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dimethoate		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethion		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ethyl methanesulfonate		mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
Fenitrothion		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ronnel		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Safrole		mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
PAH/Phenols	2,4-dimethylphenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	2,4-dinitrophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10	
	2-chloronaphthalene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	2-methylnaphthalene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	2-methylphenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	2-nitrophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	3-methylcholanthrene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	4,6-Dinitro-2-methylphenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10	
	4-methylphenol	mg/kg	2			-	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	<2	<2	
	4-nitrophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	<10	<10	<10	<10	<10	
	Acenaphthene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Acenaphthylene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Acetophenone	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Anthracene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benz(a)anthracene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(a) pyrene	mg/kg	0.05		1	<0.05	<0.05	-	<0.05	<0.05	0.11	<0.05	0.08	<0.05	<0.05	0.39	<0.05	<0.05	<0.05	<0.05	<0.05	
	Benzo(b)&(k)fluoranthene	mg/kg	0.2			<0.2	<0.2	-	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	0.7	<0.2	<0.2	<0.2	<0.2	<0.2	
	Benzo(b)fluoranthene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Benzo(g,h,i)perylene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(k)fluoranthene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Chrysene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	
	Dibenz(a,h)anthracene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1 - 0.1	<0.1	<0.1	<0.1	<0.1	
Fluoranthene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	<0.1		
Fluorene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1		
Naphthalene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Phenanthrene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.3	0.1	<1 - 0.4	<0.1	<0.1	<0.1		
Phenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1		
Pyrene	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	0.8	<0.1	<0.1	<0.1	<0.1	<0.1		
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Butyl benzyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Diethylphthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Dimethyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Di-n-butyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Di-n-octyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
	Arochlor 1221	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	-	-	<0.1	
	Arochlor 1232	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
	Arochlor 1242	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
	Arochlor 1248	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
	Arochlor 1254	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
	Arochlor 1260	mg/kg	0.1			<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	
Solvents	Cyclohexane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
	Isophorone	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	
SVOCs	1,2,4,5-tetrachlorobenzene	mg/kg	1																			

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	BH1	BH3	BH3	BH3	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW3	GW4	GW5	HA04	HA05	HA05	HA06	HA13	HA14
Sampled Date-Time	6/05/2009	20/05/2009	20/05/2009	20/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	6/05/2009	5/05/2009	6/05/2009	22/03/2011	22/03/2011	22/03/2011	24/03/2011	22/03/2011	24/03/2011
Sample Depth Range	0.1-0.3	0-0.1	0.5-0.6	0.9-1	0.1-0.3	3.8-4	0-0.2	4.8-5	0-0.2	2.8-3	0.2-0.4	1-1.2	0-0.2	0-0.2	0-0.2	0.4	0.25	0.5	0.5	1	0.23

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	BH1	BH3	BH3	BH3	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW3	GW4	GW5	HA04	HA05	HA05	HA06	HA13	HA14
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	<25	<25	-	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
	TPH C10 - C14	mg/kg	50			<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	TPH C15 - C28	mg/kg	100			<100	<100	-	110	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH C29-C36	mg/kg	100			<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	<250	<250	-	260	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,1,1-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,1,2,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,1,2-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,1-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,1-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2,3-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2,3-trichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2,4-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2-dibromoethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,2-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,3-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	1,4-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Bromodichloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Bromoform	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Carbon tetrachloride	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Chlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Chlorodibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Chloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Chloroform	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	cis-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	cis-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Dibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Hexachlorobutadiene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Pentachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
	Trichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-
Tetrachloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	
trans-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	
trans-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	
Trichlorofluoromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	
Vinyl chloride	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	

Comments
(a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
(b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
(c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	HA14	HA17	HA18	HA18	HA19	HA19	HA23	HA24	HA25	HA25	HA26	HA27	HA28	HA29	HA29	HA30	HA31	HA31	HA32	HA32
Sampled_Date/Time	24/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	25/03/2011	24/03/2011	24/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Sample_Depth Range	0.4	0.25	0.35	0.5	0.4	0.9	0.3	0.4	0.2	0.5	0.45	0.14	0.22	0.13	0.6	0.16	0.2	0.5	0.12	0.4

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	HA14	HA17	HA18	HA18	HA19	HA19	HA23	HA24	HA25	HA25	HA26	HA27	HA28	HA29	HA29	HA30	HA31	HA31	HA32	HA32
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	-	<25	<25	-	<25	-	<25	<25	<25	-	<25	<25	<25	-	<25	<25	<25	-	<25	-
	TPH C10 - C14	mg/kg	50			-	<50	<50	-	<50	-	<50	<50	<50	-	<50	<50	<50	-	<50	<50	<50	-	<50	-
	TPH C15 - C28	mg/kg	100			-	<100	<100	-	<100	-	<100	<100	<100	-	<100	<100	<100	-	<100	<100	<100	-	<100	-
	TPH C29-C36	mg/kg	100			-	<100	<100	-	<100	-	<100	<100	<100	-	<100	<100	<100	-	<100	<100	<100	-	<100	-
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	-	<250	<250	-	<250	-	<250	<250	<250	-	<250	<250	<250	-	<250	<250	<250	-	<250	-
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,1,1-trichloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,1,2,2-tetrachloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,1,2-trichloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,1-dichloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,1-dichloroethene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2,3-trichlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2,3-trichloropropane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2,4-trichlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2-dibromoethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2-dichlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,2-dichloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,3-dichlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	1,4-dichlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Bromodichloromethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Bromoform	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Carbon tetrachloride	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Chlorobenzene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Chlorodibromomethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Chloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Chloroform	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	cis-1,2-dichloroethene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	cis-1,3-dichloropropene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Dibromomethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Hexachlorobutadiene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Pentachloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Trichloroethene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	Tetrachloroethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	trans-1,2-dichloroethene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
	trans-1,3-dichloropropene	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-
Trichlorofluoromethane	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-	
Vinyl chloride	mg/kg	1			-	<1	<1	-	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1	-	<1	-	

Comments
(a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
(b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
(c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	HA32	HA33	HA33	HA34	HA34	HA34	HA35	HA35	HA36	HA37	HA37	HA39	HA40	HA40	HA40	HA40	HA41	HA42	HA44	HA44			
Sample Date/Time	23/03/2011	25/03/2011	25/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011			
Sample Depth Range	1	0.1	0.4	0.15	0.45	1.6	0.22	0.4	0.2	0.15	0.3	0.6	0.1	0.3	0.5	0.9	0.5	0.5	0.27	0.35			
Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																		
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	N-nitrosodi-n-propylamine	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
Amino Aromatics	1-naphthylamine	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	2-naphthylamine	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
Anilines	Diphenylamine	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	2-nitroaniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	3-nitroaniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	4-chloroaniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	4-nitroaniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
	2-methyl-5-nitroaniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
Asbestos	Aniline	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	<1	-	-	<1	-		
BTEX	Asbestos fibres	-				-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-		
	Benzene	mg/kg	0.5	1 (a)	1 (b)	-	<0.5	-	-	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-		
	Ethylbenzene	mg/kg	1	3.1 (a)	50 (b)	-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Toluene	mg/kg	0.5	1.4 (a)	130 (b)	-	<0.5	-	-	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-		
	Xylene (m & p)	mg/kg	2			-	<2	-	-	<2	-	<2	-	<2	<2	<2	<2	-	-	<2	-		
Chlorinated Hydrocarbons	Xylene (o)	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,1-dichloropropane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,2-dibromo-3-chloropropane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,2-dichloropropane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,3-dichloropropane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,2-dichloropropane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Bromochloromethane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Explosives	Chloromethane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,3-Dinitrobenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,6-dinitrotoluene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Halogenated Benzenes	Nitrobenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2-chlorotoluene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Halogenated Hydrocarbons	4-chlorotoluene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Bromobenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Halogenated Phenols	Bromomethane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Dichlorodifluoromethane	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,3,4,6-tetrachlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,4,5-trichlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,4,6-trichlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2,4-dichlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Herbicides	2,6-dichlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	2-chlorophenol	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Pentachlorophenol	mg/kg	10			-	<10	-	-	<10	-	<10	-	<10	<10	<10	<10	-	-	<10	-		
	Dinoseb	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Cyanide Total	mg/kg	0.5		500	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	<0.5	-		
Inorganics	Nitrate (as N)	mg/kg	0.5			-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-		
	Nitrite (as N)	mg/kg	0.1			-	-	-	-	3.2	-	-	-	-	-	-	-	-	-	-	-		
	Sulphate	mg/kg	2	2000		-	-	-	-	50	-	-	-	-	-	-	-	-	-	14	-		
	Sulphur as S	mg/kg	10	600		-	-	-	-	290	-	-	-	-	-	-	-	-	-	130	-		
	Lead	mg/kg	1	600	300	16	94	21	4	30	18	11	19	10	15	28	21	14	7	20	21	29	
MAH	1,2,4-trimethylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	1,3,5-trimethylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Isopropylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	n-butylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	n-propylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	p-isopropyltoluene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	sec-butylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	Styrene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
	tert-butylbenzene	mg/kg	1			-	<1	-	-	<1	-	<1	-	<1	<1	<1	<1	-	-	<1	-		
Metals	Antimony	mg/kg	7	20 (c)		-	<7	<7	-	-	-	-	-	-	-	<7	<7	-	-	<7	<7		
	Arsenic	mg/kg	4	20	100	<4	10	7	<4	10	5	5	8	4	10	5	4	43	<4	9	9		
	Beryllium	mg/kg	1		20	<1	<1	<1	<1	1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1		
	Cadmium	mg/kg	0.5	3	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
	Chromium (hexavalent)	mg/kg	1	1	100	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-		
	Chromium (III+VI)	mg/kg	1	400	120000	4	16	16	22	11	9	8	8	7	4	16	9	5	15	13	2	10	
	Cobalt	mg/kg	1		100	4	6	3	47	10	21	4	19	25	13	2	<1	<1	20	16	<1	3	
	Copper	mg/kg	1	100	1000	24	59	23	65	35	30	41	35	48	58	29	<1	15	14	58	43	16	41
	Manganese	mg/kg	1	500	1500	18	270	54	680	750	360	14	430	380	230	53	9	3	420	330	2	10	
	Mercury	mg/kg	0.1	1	15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Molybdenum	mg/kg	1			<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
	Nickel	mg/kg	1	60	600	3	12	4	180	7	19	4	15	81	14	7	1	1	53	18	<1	2	
	Phosphorus	mg/kg	10	2000		-																	

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	HA32	HA33	HA33	HA34	HA34	HA34	HA35	HA35	HA36	HA37	HA37	HA39	HA40	HA40	HA40	HA40	HA41	HA42	HA44	HA44
Sampled_Date/Time	23/03/2011	25/03/2011	25/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011
Sample_Depth Range	1	0.1	0.4	0.15	0.45	1.6	0.22	0.4	0.2	0.15	0.3	0.6	0.1	0.3	0.5	0.9	0.5	0.5	0.27	0.35

Chem_Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	HA32	HA33	HA33	HA34	HA34	HA34	HA35	HA35	HA36	HA37	HA37	HA39	HA40	HA40	HA40	HA40	HA41	HA42	HA44	HA44
Organophosphorous Pesticides	Endosulfan II	mg/kg	0.1			-	<1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Endosulfan sulphate	mg/kg	0.1			-	<1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Endrin	mg/kg	0.1			-	<1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Endrin aldehyde	mg/kg	0.1			-	<1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	g-BHC (Lindane)	mg/kg	0.1			-	<1	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Heptachlor	mg/kg	0.1		10		-	<1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Heptachlor epoxide	mg/kg	0.1				-	<1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Hexachlorobenzene	mg/kg	0.1				-	<1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Methoxychlor	mg/kg	0.1				-	<1	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-
	Bromophos-ethyl	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorpyrifos-methyl	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diazinon	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethoate	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethion	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethyl methanesulfonate	mg/kg	1				-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
Fenitrothion	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ronnel	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Safrole	mg/kg	1				-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
PAH/Phenols	2,4-dimethylphenol	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	2,4-dinitrophenol	mg/kg	10			-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	<10	-	
	2-chloronaphthalene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	2-methylnaphthalene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	2-methylphenol	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	2-nitrophenol	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	3-methylcholanthrene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	4,6-Dinitro-2-methylphenol	mg/kg	10			-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	<10	-	
	4-methylphenol	mg/kg	2			-	<2	-	-	-	<2	-	-	-	-	-	-	-	-	-	-	-	<2	-	
	4-nitrophenol	mg/kg	10			-	<10	-	-	-	<10	-	-	-	-	-	-	-	-	-	-	-	<10	-	
	Acenaphthene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1
	Acetophenone	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	Anthracene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.2	-	-	-	<0.1	<0.1	<0.1	<0.1
	Benzo(a) pyrene	mg/kg	0.05			1	<1 - 0.06	-	-	<0.05	-	<0.05	-	<0.05	<0.05	-	0.37	-	-	-	-	<0.05	<0.05	<0.05	<0.05
	Benzo(b)&(k)fluoranthene	mg/kg	0.2			-	<0.2	-	-	<0.2	-	<0.2	-	<0.2	<0.2	-	0.5	-	-	-	-	<0.2	<0.2	<0.2	<0.2
	Benzo(b)fluoranthene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
	Benzo(g,h,i)perylene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.3	-	-	-	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	<1	-	
Chrysene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.4	-	-	-	<0.1	<0.1	<0.1	<0.1	
Dibenz(a,h)anthracene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	
Fluoranthene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.5	-	-	-	<0.1	<0.1	<0.1	<0.1	
Fluorene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.2	-	-	-	<0.1	<0.1	<0.1	<0.1	
Naphthalene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	<0.1	-	-	-	<0.1	<0.1	<0.1	<0.1	
Phenanthrene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.4	-	-	-	<0.1	<0.1	<0.1	<0.1	
Phenol	mg/kg	1			8500	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
Pyrene	mg/kg	0.1			-	<0.1	-	-	<0.1	-	<0.1	-	<0.1	<0.1	<0.1	-	0.9	-	-	-	<0.1	<0.1	<0.1	<0.1	
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
	Butyl benzyl phthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
	Diethylphthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
	Dimethyl phthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
	Di-n-butyl phthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
	Di-n-octyl phthalate	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	<1	-		
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 1221	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 1232	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 1242	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 1248	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 1254	mg/kg	0.1			-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	
	Arochlor 126																								

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	HA32	HA33	HA33	HA34	HA34	HA34	HA35	HA35	HA36	HA37	HA37	HA39	HA40	HA40	HA40	HA40	HA41	HA42	HA44	HA44
Sample Date-Time	23/03/2011	25/03/2011	25/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011
Sample Depth Range	1	0.1	0.4	0.15	0.45	1.6	0.22	0.4	0.2	0.15	0.3	0.6	0.1	0.3	0.5	0.9	0.5	0.5	0.27	0.35

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	HA32	HA33	HA33	HA34	HA34	HA34	HA35	HA35	HA36	HA37	HA37	HA39	HA40	HA40	HA40	HA40	HA41	HA42	HA44	HA44	
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	-	<25	<25	-	<25	<25	<25	-	<25	<25	-	<25	<25	<25	<25	<25	<25	<25	<25	-	
	TPH C10 - C14	mg/kg	50			-	<50	<50	-	<50	<50	<50	-	<50	<50	-	<50	<50	<50	<50	<50	<50	<50	<50	-	
	TPH C15 - C28	mg/kg	100			-	<100	<100	-	<100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-
	TPH C29-C36	mg/kg	100			-	<100	<100	-	<100	<100	<100	-	<100	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	-	<250	<250	-	<250	<250	<250	-	<250	<250	-	<250	<250	<250	<250	<250	<250	<250	<250	<250	-
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,1,1-trichloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,1,2,2-tetrachloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,1,2-trichloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,1-dichloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,1-dichloroethene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2,3-trichlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2,3-trichloropropane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2,4-trichlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2-dibromoethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2-dichlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,2-dichloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,3-dichlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	1,4-dichlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Bromodichloromethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Bromoform	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Carbon tetrachloride	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Chlorobenzene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Chlorodibromomethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Chloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Chloroform	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	cis-1,2-dichloroethene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	cis-1,3-dichloropropene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Dibromomethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Hexachlorobutadiene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Pentachloroethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Trichloroethene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	Tetrachloroethene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	trans-1,2-dichloroethene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
	trans-1,3-dichloropropene	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-	
Trichlorofluoromethane	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-		
Vinyl chloride	mg/kg	1			-	<1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	<1	-		

Comments
(a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
(b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
(c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	TP01	TP02	TP03	TP03	TP04	TP05	TP05	TP06	TP06	TP06	TP07	TP08	TP09	TP09	TP10	TP11	TP12	TP13	TP13	TP14					
Sample Date/Time	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	23/03/2011	23/03/2011	22/03/2011	22/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011					
Sample Depth Range	0.1	0.5	0.5	1	1	1	2.5	0.1	1	1.5	0.5	0.5	0.5	1	0.1	0.5	0.5	0.1	0.5	0.1					
Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																				
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	N-nitrosodi-n-propylamine	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Amino Aromatics	1-naphthylamine	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2-naphthylamine	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Diphenylamine	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Anilines	2-nitroaniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	3-nitroaniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	4-chloroaniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	4-nitroaniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2-methyl-5-nitroaniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Aniline	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	-	<1			
Asbestos	Asbestos fibres	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0			
BTEX	Benzene	mg/kg	0.5	1 (a)	1 (b)	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5			
	Ethylbenzene	mg/kg	1	3.1 (a)	50 (b)	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1			
	Toluene	mg/kg	0.5	1.4 (a)	130 (b)	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	-	<0.5			
	Xylene (m & p)	mg/kg	2	-	-	<2	<2	-	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	-	<2	-	<2			
	Xylene (o)	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	-	<1	-	<1			
Chlorinated Hydrocarbons	1,1-dichloropropane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	1,2-dibromo-3-chloropropane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	1,2-dichloropropane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	1,3-dichloropropane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,2-dichloropropane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Bromochloromethane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Chloromethane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Explosives	1,3-Dinitrobenzene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,6-dinitrotoluene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Nitrobenzene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Halogenated Benzenes	2-chlorotoluene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	4-chlorotoluene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Bromobenzene	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Halogenated Hydrocarbons	Bromomethane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	Dichlorodifluoromethane	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,4,5-trichlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,4,6-trichlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,4-dichlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2,6-dichlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
	2-chlorophenol	mg/kg	1	-	-	<1	-	-	-	-	<1	-	-	-	<1	-	<1	-	-	-	-	<1			
Herbicides	Pentachlorophenol	mg/kg	10	-	-	<10	-	-	-	<10	-	-	<10	-	<10	-	<10	-	-	-	-	<10			
Herbicides	Dinoseb	mg/kg	1	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	<1	-	-	-	-	<1			
Inorganics	Cyanide Total	mg/kg	0.5	-	500	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<0.5	-	-	-	-	<0.5			
	Nitrate (as N)	mg/kg	0.5	-	-	-	-	-	-	<0.5	-	-	-	-	<0.5	-	<0.5	-	-	-	-	<0.5			
	Nitrite (as N)	mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Sulphate	mg/kg	2	-	2000	-	-	-	-	-	98	-	-	-	-	32	-	-	-	-	-	-	15		
	Sulphur as S	mg/kg	10	-	600	-	-	-	-	-	180	-	-	-	-	110	-	-	-	-	-	-	260		
Lead	Lead	mg/kg	1	600	300	24	22	45	30	18	12	12	-	20	55	8	14	17	12	44	13	16	-	14	43
MAH	1,2,4-trimethylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	1,3,5-trimethylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	Isopropylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	n-butylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	n-propylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	p-isopropyltoluene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	sec-butylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	Styrene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	tert-butylbenzene	mg/kg	1	-	-	<1	<1	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	-	<1	-	<1		
	Metals	Antimony	mg/kg	7	-	20 (c)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Arsenic		mg/kg	4	-	20	8	11	9	8	12	9	8	-	6	14	<4	10	<4	5	6	7	-	7	5	
Beryllium		mg/kg	1	-	20	1	<1	2	<1	1	<1	<1	-	2	1	<1	<1	3	<1	2	<1	-	<1	2	
Cadmium		mg/kg	0.5	-	3	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	
Chromium (hexavalent)		mg/kg	1	-	1	100	-	-	-	-	-	-	-	-	-	<1	-	<1	-	-	-	-	<1		
Chromium (III+VI)		mg/kg	1	-	400	10	14	15	14	19	5	15	-	7	9	5	5	5	5	12	11	17	-	20	7
Cobalt		mg/kg	1	-	100	16	21	23	7	22	4	5	-	540	15	1	4	4	<1	28	3	-	4	32	
Copper		mg/kg	1	-	100	48	40	40	31	38	23	17	-	39	140	8	22	23	16	55	14	19	-	9	27
Manganese		mg/kg	1	-	500	310	690	660	160	450	57	44	-	2900	300	15	70	35	9						

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

Table with columns: LocCode, Sample Date-Time, Sample Depth Range, and 21 sampling points (TP01-TP21). Rows are categorized by Chem Group (e.g., Organophosphorous Pesticides, PAH, Phthalates, Polychlorinated Biphenyls, Solvents, SVOCs) and list various chemical compounds with their units, EQI, NEPM 1999 EIL, and NEPM 1999 HIL A values.

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	TP01	TP02	TP03	TP03	TP04	TP05	TP05	TP06	TP06	TP06	TP07	TP08	TP09	TP09	TP10	TP11	TP12	TP13	TP13	TP14
Sample Date/Time	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011	23/03/2011	23/03/2011	22/03/2011	22/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Sample Depth Range	0.1	0.5	0.5	1	1	1	2.5	0.1	1	1.5	0.5	0.5	0.5	1	0.1	0.5	0.5	0.1	0.5	0.1

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	TP01	TP02	TP03	TP03	TP04	TP05	TP05	TP06	TP06	TP06	TP07	TP08	TP09	TP09	TP10	TP11	TP12	TP13	TP13	TP14
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	<25	<25	-	<25	<25	<25	-	-	<25	<25	<25	<25	<25	<25	<25	<25	<25	-	<25	<25
	TPH C10 - C14	mg/kg	50			<50	<50	-	<50	<50	<50	-	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50
	TPH C15 - C28	mg/kg	100			<100	<100	-	<100	<100	<100	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	140
	TPH C29-C36	mg/kg	100			<100	<100	-	<100	<100	<100	-	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	-	<100	<100
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	<250	<250	-	<250	<250	<250	-	-	<250	<250	<250	<250	<250	<250	<250	<250	<250	-	<250	290
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,1,1-trichloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,1,2,2-tetrachloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,1,2-trichloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,1-dichloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,1-dichloroethene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2,3-trichlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2,3-trichloropropane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2,4-trichlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2-dibromoethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2-dichlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,2-dichloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,3-dichlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	1,4-dichlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Bromodichloromethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Bromoform	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Carbon tetrachloride	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Chlorobenzene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Chlorodibromomethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Chloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Chloroform	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	cis-1,2-dichloroethene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	cis-1,3-dichloropropene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Dibromomethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Hexachlorobutadiene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Pentachloroethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Trichloroethene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
	Tetrachloroethene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1
trans-1,2-dichloroethene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1	
trans-1,3-dichloropropene	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1	
Trichlorofluoromethane	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1	
Vinyl chloride	mg/kg	1			<1	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	<1	-	-	-	-	<1	

Comments
(a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
(b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
(c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
 Table C1 Soil Analytical Results

LocCode		TP14	TP15	TP16	TP17	TP18	TP19	TP21	TP25	TP28	TP28	TP29	TP29	TP30	TP30	TP30	TP31	TP31	TP31	TP32	TP32		
Sample Date/Time		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011		
Sample Depth Range		0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	2	0.1	1	0.1	1	2	0.1	0.5	2	1	2		
Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																		
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	N-nitrosodi-n-propylamine	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
Amino Aromatics	1-naphthylamine	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	2-naphthylamine	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
Anilines	Diphenylamine	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	2-nitroaniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	3-nitroaniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	4-chloroaniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	4-nitroaniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
	2-methyl-5-nitroaniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
Asbestos	Aniline	mg/kg	1	-	-	-	-	<1	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	
Asbestos	Asbestos fibres	-	-	0	0	-	-	0	0	-	0	-	-	0	0	0	-	0	-	0	0	0	
	BTEX	Benzene	mg/kg	0.5	1 (a)	1 (b)	-	<0.5	-	<0.5	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	
BTEX	Ethylbenzene	mg/kg	1	3.1 (a)	50 (b)	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Toluene	mg/kg	0.5	1.4 (a)	130 (b)	-	<0.5	-	<0.5	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	
	Xylene (m & p)	mg/kg	2	-	-	-	<2	-	<2	-	-	-	-	-	-	-	<2	-	-	<2	-	-	
	Xylene (o)	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Chlorinated Hydrocarbons	1,1-dichloropropane	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-
1,2-dibromo-3-chloropropane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
1,2-dichloropropane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
1,3-dichloropropane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
2,2-dichloropropane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Bromochloromethane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Chloromethane		mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Explosives	1,3-Dinitrobenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,6-dinitrotoluene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Nitrobenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Halogenated Benzenes	2-chlorotoluene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	4-chlorotoluene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Halogenated Hydrocarbons	Bromobenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Bromomethane	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Halogenated Phenols	Dichlorodifluoromethane	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,3,4,6-tetrachlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,4,5-trichlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,4,6-trichlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,4-dichlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	2,6-dichlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
Herbicides	2-chlorophenol	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Pentachlorophenol	mg/kg	10	-	-	-	<10	-	<10	-	-	-	-	-	-	-	<10	-	-	<10	-	-	
Herbicides	Dinoseb	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Inorganics	Cyanide Total	mg/kg	0.5	-	500	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-
Nitrate (as N)		mg/kg	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	<0.5	-	-	
Nitrite (as N)		mg/kg	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sulphate		mg/kg	2	2000	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	3	-	-	
Sulphur as S		mg/kg	10	600	-	-	-	-	-	-	-	-	-	-	-	-	120	-	-	120	-	-	
Lead	Lead	mg/kg	1	600	300	12	18	13	14	8	29	17	16	17	13	-	15	27	28	-	9	58	21
MAH	1,2,4-trimethylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	1,3,5-trimethylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Isopropylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	n-butylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	n-propylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	p-isopropyltoluene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	sec-butylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
	Styrene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-	
tert-butylbenzene	mg/kg	1	-	-	-	<1	-	<1	-	-	-	-	-	-	-	<1	-	-	<1	-	-		
Metals	Antimony	mg/kg	7	20 (c)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arsenic	mg/kg	4	20	100	16	10	11	8	<4	9	5	6	10	5	-	15	6	6	-	<4	10	13
	Beryllium	mg/kg	1	-	20	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	1	<1
	Cadmium	mg/kg	0.5	3	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
	Chromium (hexavalent)	mg/kg	1	1	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chromium (III+VI)	mg/kg	1	400	120000	14	8	6	6	5	8	7	6	3	3	-	4	11	11	-	2	8	19
	Cobalt	mg/kg	1	-	100	2	18	7	3	3	33	16	15	2	2	-	4	3	9	-	1	14	9
	Copper	mg/kg	1	100	1000	22	30	21	22	17	38	27	25	26	26	-	29	20	24	-	15	80	35
	Manganese	mg/kg	1	500	1500	3	280	230	92	48	640	540	210	7	78	-	83	66	240	-	12	460	250
	Mercury	mg/kg	0.1	1	15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1
	Molybdenum	mg/kg	1	-	600	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	-	<1	<1	<1
	Nickel	mg/kg	1	60	-	1	15	5	3	2	13	10	6	1	<1	-	2	6	14	-	1	9	22
	Phosphorus	mg/kg	10	2000	-	-	-	-	-														

			TP14	TP15	TP16	TP17	TP18	TP19	TP21	TP25	TP28	TP28	TP29	TP29	TP30	TP30	TP30	TP31	TP31	TP31	TP32	TP32	
LocCode	TP14	TP15	TP16	TP17	TP18	TP19	TP21	TP25	TP28	TP28	TP29	TP29	TP30	TP30	TP30	TP31	TP31	TP31	TP32	TP32			
Sampled_Date/Time	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	
Sample_Depth	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	2	0.1	1	0.1	1	2	0.1	0.5	2	1	2		
Range	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	2	0.1	1	0.1	1	2	0.1	0.5	2	1	2		
Chem_Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A																		
Organophosphorus Pesticides	Endosulfan II	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Endosulfan sulphate	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Endrin	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Endrin aldehyde	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	g-BHC (Lindane)	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Heptachlor	mg/kg	0.1			10	-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Heptachlor epoxide	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Hexachlorobenzene	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Methoxychlor	mg/kg	0.1			-	<1	-	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
	Organophosphorus Pesticides	Bromophos-ethyl	mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-
Chlorpyrifos		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Chlorpyrifos-methyl		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Diazinon		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Dimethoate		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Ethion		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Ethyl methanesulfonate		mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-
Fenitrothion		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-
Ronnel		mg/kg	0.1			-	<1	-	-	-	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	-
Safrole	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	
PAH/Phenols	2,4-dimethylphenol	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	-	<1	-	-	-	-	-	
	2,4-dinitrophenol	mg/kg	10			-	<10	-	-	<10	-	-	-	-	-	<10	-	-	<10	-	<10	-	-
	2-chloronaphthalene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	2-methylnaphthalene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	2-methylphenol	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	2-nitrophenol	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	3-methylcholanthrene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	4,6-Dinitro-2-methylphenol	mg/kg	10			-	<10	-	-	<10	-	-	-	-	-	<10	-	-	<10	-	<10	-	-
	4-methylphenol	mg/kg	2			-	<2	-	-	<2	-	-	-	-	-	<2	-	-	<2	-	<2	-	-
	4-nitrophenol	mg/kg	10			-	<10	-	-	<10	-	-	-	-	-	<10	-	-	<10	-	<10	-	-
	Acenaphthene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	-	-	<0.1	-	<0.1	-	<0.1
	Acenaphthylene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1
	Acetophenone	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	Anthracene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1
	Benz(a)anthracene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1
	Benzo(a) pyrene	mg/kg	0.05			1	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	-	<0.05	-	<0.05	-	<0.05	-	<0.05	-	<0.05
	Benzo(b)&(k)fluoranthene	mg/kg	0.2			-	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	-	<0.2	-	<0.2	-	<0.2	-	<0.2	-	<0.2
	Benzo(b)fluoranthene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1
Benzo(k)fluoranthene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-	
Chrysene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Dibenz(a,h)anthracene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Fluoranthene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Fluorene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Naphthalene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Phenanthrene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Phenol	mg/kg	1			8500	<1	-	-	<1	-	-	-	-	-	<1	-	-	<1	-	<1	-	-	
Pyrene	mg/kg	0.1			-	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Butyl benzyl phthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Diethylphthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Dimethyl phthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Di-n-butyl phthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Di-n-octyl phthalate	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1221	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1232	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1242	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1248	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1254	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
	Arochlor 1260	mg/kg	0.1			-	<1	-	-	<1	-	-	-	-	<0.1	-	-	<0.1	-	<0.1	-	-	
Solvents	Cyclohexane	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Isophorone	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
SVOCS	1,2,4,5-tetrachlorobenzene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	2-(acetylamino) fluorene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	4-(dimethylamino) azobenzene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	4-bromophenyl phenyl ether	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	4-chlorophenyl phenyl ether	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Azobenzene	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Benzyl alcohol	mg/kg	1			-	<1	-	-	<1	-	-	-	-	<1	-	-	<1	-	<1	-	-	
	Bis(2-chloroethoxy) methane	mg/kg	1																				

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	TP14	TP15	TP16	TP17	TP18	TP19	TP21	TP25	TP28	TP28	TP29	TP29	TP30	TP30	TP30	TP31	TP31	TP31	TP32	TP32
Sample Date-Time	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Sample Depth Range	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	2	0.1	1	0.1	1	2	0.1	0.5	2	1	2

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	TP14	TP15	TP16	TP17	TP18	TP19	TP21	TP25	TP28	TP28	TP29	TP29	TP30	TP30	TP30	TP31	TP31	TP31	TP32	TP32
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	-	<25	<25	<25	<25	<25	-	<25	-	<25	-	<25	-	<25	-	-	<25	-	<25	-
	TPH C10 - C14	mg/kg	50			-	<50	<50	<50	<50	<50	-	<50	-	<50	-	<50	-	<50	-	-	<50	-	<50	-
	TPH C15 - C28	mg/kg	100			-	<100	<100	<100	<100	<100	-	<100	-	<100	-	<100	-	<100	-	-	<100	-	<100	-
	TPH C29-C36	mg/kg	100			-	<100	<100	<100	<100	<100	-	<100	-	<100	-	<100	-	<100	-	-	<100	-	<100	-
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	-	<250	<250	<250	<250	<250	-	<250	-	<250	-	<250	-	<250	-	-	<250	-	<250	-
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,1-trichloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2,2-tetrachloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1,2-trichloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,1-dichloroethene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,3-trichloropropane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2,4-trichlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dibromoethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,2-dichloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,3-dichlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1,4-dichlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromodichloromethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Bromoform	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Carbon tetrachloride	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorobenzene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chlorodibromomethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chloroform	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,2-dichloroethene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	cis-1,3-dichloropropene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibromomethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorobutadiene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachloroethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Trichloroethene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Tetrachloroethene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,2-dichloroethene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	trans-1,3-dichloropropene	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vinyl chloride	mg/kg	1			-	<1	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Comments
 (a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
 (b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
 (c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	TP33	TP33	TP34	TP34	TP35	TP35	TP38	TP38	TP38	TP39	TP39	TP39	TP40	TP40	TP40	TP43	TP43	TP45	TP45	WS10
Sample Date-Time	25/03/2011	25/03/2011	25/03/2011	25/03/2011	24/03/2011	24/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011	24/03/2011	24/03/2011	23/03/2011	23/03/2011	20/05/2009
Sample Depth Range	0.5	1	0.2	1	0.1	0.5	0.5	1	2	0.5	1	1.9	0.5	1	2	0.1	0.5	0.1	0.5	0-0.1

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	TP33	TP33	TP34	TP34	TP35	TP35	TP38	TP38	TP38	TP39	TP39	TP39	TP40	TP40	TP40	TP43	TP43	TP45	TP45	WS10
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	<25	-	-	<25	-	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
	TPH C10 - C14	mg/kg	50			<50	-	-	<50	-	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	TPH C15 - C28	mg/kg	100			<100	-	-	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH C29-C36	mg/kg	100			<100	-	-	<100	-	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	<250	-	-	<250	-	<250	<250	<250	<250	<250	<250	<250	320	<250	<250	<250	340	<250	<250	<250
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,1,1-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,1,2,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,1,2-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,1-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,1-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2,3-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2,3-trichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2,4-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2-dibromoethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,2-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,3-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	1,4-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Bromodichloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Bromoform	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Carbon tetrachloride	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Chlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Chlorodibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Chloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Chloroform	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	cis-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	cis-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Dibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Hexachlorobutadiene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Pentachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
	Trichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-
Tetrachloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-	
trans-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-	
trans-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-	
Trichlorofluoromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-	
Vinyl chloride	mg/kg	1			-	-	-	-	-	-	-	-	-	<1	-	-	<1	<1	-	-	<1	<1	-	-	

Comments
(a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
(b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
(c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9
Sampled_Date-Time	14/05/2009	14/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009
Sample_Depth Range	0.2-0.3	0.6-0.7	0.3-0.4	0.2-0.3	1.3-1.4	0.3-0.4	0.2-0.3	0-0.1	0.2-0.3	0.7-0.8	0.2-0.3	0.2-0.3	0-0.1	0.6-0.7

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9	
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	N-nitrosodi-n-propylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Amino Aromatics	1-naphthylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-naphthylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Diphenylamine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Anilines	2-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-chloroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-methyl-5-nitroaniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Aniline	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Asbestos	Asbestos fibres	-				-	-	0	0	-	-	-	0	-	-	-	0	0	-	
BTEX	Benzene	mg/kg	0.5	1 (a)	1 (b)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	
	Ethylbenzene	mg/kg	1	3.1 (a)	50 (b)	<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	
	Toluene	mg/kg	0.5	1.4 (a)	130 (b)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	
	Xylene (m & p)	mg/kg	2			<2	<2	<2	<2	<2	<2	<2	<2	-	-	<2	<2	<2	<2	
	Xylene (o)	mg/kg	1			<1	<1	<1	<1	<1	<1	<1	<1	-	-	<1	<1	<1	<1	
Chlorinated Hydrocarbons	1,1-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2-dibromo-3-chloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,3-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,2-dichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bromochloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Explosives	1,3-Dinitrobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,6-dinitrotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nitrobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Halogenated Benzenes	2-chlorotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-chlorotoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bromobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Halogenated Hydrocarbons	Bromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Dichlorodifluoromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,4,5-trichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,4,6-trichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,4-dichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,6-dichlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-chlorophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Herbicides	Pentachlorophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Dinoseb	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Inorganics	Cyanide Total	mg/kg	0.5		500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nitrate (as N)	mg/kg	0.5			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nitrite (as N)	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Sulphate	mg/kg	2	2000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Sulphur as S	mg/kg	10	600		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Lead	Lead	mg/kg	1	600	300	9	15	12	14	180	23	11	270	-	-	5	12	45	39	
MAH	1,2,4-trimethylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,3,5-trimethylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Isopropylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	n-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	n-propylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	p-isopropyltoluene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	sec-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Styrene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	tert-butylbenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Metals	Antimony	mg/kg	7	20 (c)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arsenic	mg/kg	4	20		8	6	5	6	8	5	<4	200	-	-	<4	7	7	10	
	Beryllium	mg/kg	1		20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Cadmium	mg/kg	0.5	3	20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	3.1	-	-	<0.5	<0.5	0.6	<0.5	
	Chromium (hexavalent)	mg/kg	1	1	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chromium (III+VI)	mg/kg	1	400	120000	5	5	6	25	19	17	170	3300	-	-	2	11	22	10	
	Cobalt	mg/kg	1		100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Copper	mg/kg	1	100	1000	25	43	21	42	34	36	35	520	-	-	11	11	45	39	
	Manganese	mg/kg	1	500	1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Mercury	mg/kg	0.1	1	15	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	-	-	<0.1	<0.1	<0.1	<0.1	
	Molybdenum	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Nickel	mg/kg	1	60	600	2	4	14	27	9	20	79	75	-	-	1	1	21	9	
	Phosphorus	mg/kg	10	2000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Selenium	mg/kg	2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Tin	mg/kg	1	50 (c)		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Vanadium	mg/kg	1	50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Zinc	mg/kg	1	200	7000	12	36	63	71	140	48	240	2300	-	-	6	6	100	73	
	Nitroaromatics	Pentachloronitrobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Organochlorine Pesticides	4,4-DDE	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-
a-BHC		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Aldrin		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
b-BHC		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
chlordane		mg/kg	1		50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlordane (cis)		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlordane (trans)		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
d-BHC		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DDD		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DDT		mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dieldrin		mg/kg	0.1																	

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9
Sampled_Date-Time	14/05/2009	14/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009
Sample_Depth Range	0.2-0.3	0.6-0.7	0.3-0.4	0.2-0.3	1.3-1.4	0.3-0.4	0.2-0.3	0-0.1	0.2-0.3	0.7-0.8	0.2-0.3	0.2-0.3	0-0.1	0.6-0.7

Chem_Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9	
Organophosphorous Pesticides	Endosulfan II	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Endosulfan sulphate	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Endrin	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Endrin aldehyde	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	g-BHC (Lindane)	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Heptachlor	mg/kg	0.1		10		-	-	-	-	-	-	-	-	-	-	-	-	-	
	Heptachlor epoxide	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	
	Hexachlorobenzene	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	
	Methoxychlor	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bromophos-ethyl	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-	
Chlorpyrifos	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Chlorpyrifos-methyl	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Diazinon	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Dimethoate	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Ethion	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Ethyl methanesulfonate	mg/kg	1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Fenitrothion	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Ronnel	mg/kg	0.1				-	-	-	-	-	-	-	-	-	-	-	-	-		
Safrole	mg/kg	1				-	-	-	-	-	-	-	-	-	-	-	-	-		
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-		
PAH/Phenols	2,4-dimethylphenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2,4-dinitrophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-chloronaphthalene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-methylnaphthalene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-methylphenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-nitrophenol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3-methylcholanthrene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4,6-Dinitro-2-methylphenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-methylphenol	mg/kg	2			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-nitrophenol	mg/kg	10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Acenaphthene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Acenaphthylene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Acetophenone	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benz(a)anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Benzo(a) pyrene	mg/kg	0.05		1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	-	-	<0.05	0.07	<0.05	<0.05
	Benzo(b)&(k)fluoranthene	mg/kg	0.2			<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	Benzo(b)fluoranthene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chrysene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.1	0.1	<0.1	<0.1
	Dibenz(a,h)anthracene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.1	0.1	<0.1	<0.1
Fluorene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	
Naphthalene	mg/kg	0.1			<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	
Phenanthrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	<0.1	<0.1	<0.1	0.1	
Phenol	mg/kg	1			8500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pyrene	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	-	-	<0.1	0.2	0.1	<0.1	
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Butyl benzyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Diethylphthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Dimethyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Di-n-butyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Di-n-octyl phthalate	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Polychlorinated Biphenyls	Arochlor 1016	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Arochlor 1221	mg/kg	0.1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Arochlor 1232	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Arochlor 1242	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Arochlor 1248	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Arochlor 1254	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	7	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
	Arochlor 1260	mg/kg	0.1			<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<2	<1	<0.1	<0.1	<0.1	<0.1	<0.1	
Solvents	Cyclohexane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Isophorone	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SVOCs	1,2,4,5-tetrachlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2-(acetylamino) fluorene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-(dimethylamino) azobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-bromophenyl phenyl ether	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4-chlorophenyl phenyl ether	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Azobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Benzyl alcohol	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bis(2-chloroethoxy) methane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bis(2-chloroethyl)ether	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bis(2-chloroisopropyl) ether	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Carbazole	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Dibenzofuran	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachlorocyclopentadiene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Hexachloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Isosafrole	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Methapyrene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosomorpholine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	N-nitrosopiperidine	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Pentachlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenacetin	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C1 Soil Analytical Results

LocCode	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9
Sampled_Date-Time	14/05/2009	14/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	20/05/2009	14/05/2009	14/05/2009	20/05/2009	20/05/2009
Sample_Depth Range	0.2-0.3	0.6-0.7	0.3-0.4	0.2-0.3	1.3-1.4	0.3-0.4	0.2-0.3	0-0.1	0.2-0.3	0.7-0.8	0.2-0.3	0.2-0.3	0-0.1	0.6-0.7

Chem Group	ChemName	Units	EQL	NEPM 1999 EIL	NEPM 1999 HIL A	WS11	WS1	WS2	WS3	WS3	WS4	WS5	WS6	WS6	WS6	WS7	WS8	WS9	WS9	
TPH	TPH C6 - C9	mg/kg	25	65 (a)	65 (b)	<25	<25	<25	<25	<25	<25	<25	<25	-	-	<25	<25	<25	<25	
	TPH C10 - C14	mg/kg	50			<50	<50	<50	<50	<50	<50	<50	<50	-	-	<50	<50	<50	<50	
	TPH C15 - C28	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	180	-	-	<100	<100	<100	<100
	TPH C29-C36	mg/kg	100			<100	<100	<100	<100	<100	<100	<100	<100	100	-	-	<100	<100	<100	<100
	TPH+C10 - C36 (Sum of total)	mg/kg			1000 (b)	<250	<250	<250	<250	<250	<250	<250	<250	330	-	-	<250	<250	<250	<250
VOCs	1,1,1,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,1,1-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,1,2,2-tetrachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,1,2-trichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,1-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,1-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2,3-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2,3-trichloropropane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2,4-trichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2-dibromoethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,2-dichloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,3-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1,4-dichlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bromodichloromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Bromoform	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Carbon tetrachloride	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chlorobenzene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chlorodibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Chloroform	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	cis-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	cis-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Dibromomethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Hexachlorobutadiene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Pentachloroethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Tetrachloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
trans-1,2-dichloroethene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
trans-1,3-dichloropropene	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Trichlorofluoromethane	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Vinyl chloride	mg/kg	1			-	-	-	-	-	-	-	-	-	-	-	-	-	-		

Comments

- (a) Derived from NSW EPA (1994) Sensitive Land Use - Terrestrial Organisms
- (b) Derived from NSW EPA (1994) Sensitive Land Use - Human Health
- (c) Derived from ANZECC (1992) EIL

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C2 Groundwater Analytical Results

LocCode	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW4	GW4	GW6	GW7	GW8	GW9
Sampled_Date-Time	15/05/2009	7/04/2011	15/05/2009	6/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	7/04/2011	6/04/2011	6/04/2011	7/04/2011

Chem_Group	ChemName	Units	ANZECC (2000) Ecosystems Fresh Water (95%)														
Amino Aliphatics	N-nitrosodi-n-butylamine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	N-nitrosodi-n-propylamine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
Amino Aromatics	1-naphthylamine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	2-naphthylamine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	Diphenylamine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
Anilines	2-nitroaniline	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	3-nitroaniline	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	4-chloroaniline	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	4-nitroaniline	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	2-methyl-5-nitroaniline	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	-
	Aniline	µg/L	8	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
BTEX	Benzene	µg/L	950	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Ethylbenzene	µg/L	80 ^A	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Toluene	µg/L	180	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene (m & p)	µg/L		<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Xylene (o)	µg/L	350	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Xylene Total	µg/L	625 ^A	-	<3	-	-	<3	-	<3	-	<3	<3	-	<3	<3	<3
Chlorinated Hydrocarbons	1,1-dichloropropene	µg/L		<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	1,2-dibromo-3-chloropropane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2-dichloropropane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,3-dichloropropane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	2,2-dichloropropane	µg/L		<1	-	<1	-	<1	-	<1	-	<1	<5	<5	-	-	<5
	Bromochloromethane	µg/L		<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	Chloromethane	µg/L		<10	<50	<10	<50	<10	<50	<10	<50	<10	<50	<50	<50	<50	<50
Explosives	1,3-Dinitrobenzene	mg/L		<0.01	-	<0.01	-	<0.01	-	<0.01	-	<0.01	-	-	-	-	-
	2,6-dinitrotoluene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	Nitrobenzene	µg/L	550	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
Halogenated Benzenes	2-chlorotoluene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	4-chlorotoluene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Bromobenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
Halogenated Hydrocarbons	Bromomethane	µg/L		<10	-	<10	<50	<10	-	<10	-	<10	<50	<50	<50	-	<50
	Dichlorodifluoromethane	µg/L		<10	<50	<10	<50	<10	<50	<10	<50	<10	<50	<50	<50	<50	<50
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/L	10	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2,4,5-trichlorophenol	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2,4,6-trichlorophenol	µg/L	3	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2,4-dichlorophenol	µg/L	120	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2,6-dichlorophenol	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2-chlorophenol	µg/L	340	<10	<2	<10	-	<10	<2	<10	<2	<10	-	-	-	-	-
Herbicides	Pentachlorophenol	µg/L	3.6	<100	<10	<100	-	<100	<10	<100	<10	<100	-	-	-	-	-
Inorganics	Dinoseb	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	Ammonia	mg/L	0.9	0.3	<0.01	0.3	0.12	1.4	0.21	0.3	0.35	1.6	0.17	2.6	0.17	2.7	0.04
	Cyanide Total	mg/L	0.007	-	<0.005	-	-	-	<0.005	-	0.008	-	-	-	-	<0.005	-
	pH (Lab)	pH_Units		-	5.5	-	-	-	5.8	-	6	-	-	-	-	6.8	-
	Sulphate as S	mg/L		-	5.8	-	-	-	290	-	52	-	-	-	-	220	-
TDS	mg/L		-	130	-	170	-	3400	-	680	-	8100	12,000	6500	11000	5100	
Lead	Lead (Filtered)	mg/L	0.0034	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
MAH	1,2,4-trimethylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,3,5-trimethylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Isopropylbenzene	µg/L		<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<5	<5	<5	<5
	n-butylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	n-propylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	p-isopropyltoluene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	sec-butylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Styrene	µg/L		<1	<1	<1	<5	<1	<1	<1	<1	<1	<5	<5	<5	<5	<5
tert-butylbenzene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5	
Metals	Antimony (Filtered)	mg/L		-	<0.005	-	<0.005	-	<0.005	-	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C2 Groundwater Analytical Results

LocCode	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW4	GW4	GW6	GW7	GW8	GW9
Sampled_Date-Time	15/05/2009	7/04/2011	15/05/2009	6/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	7/04/2011	6/04/2011	6/04/2011	7/04/2011

Chem_Group	ChemName	Units	ANZECC (2000) Ecosystems Fresh Water (95%)														
	Arsenic (Filtered)	mg/L		<0.001	<0.001	<0.001	<0.001	<0.001	0.007	0.002	0.005	0.018	0.034	0.02	0.022	0.014	0.01
	Beryllium (Filtered)	mg/L		-	<0.001	-	-	-	0.002	-	<0.001	-	<0.001	<0.001	-	<0.001	<0.001
	Boron (Filtered)	mg/L	0.37	-	0.06	-	0.11	-	0.03	-	0.12	-	-	-	0.05	-	-
	Cadmium (Filtered)	mg/L	0.0002	0.0002	0.0002	<0.0001	<0.0001	0.0008	0.0021	<0.0001	<0.0001	0.0002	0.0001	0.0002	0.0001	<0.0001	0.0001
	Chromium (III+VI) (Filtered)	mg/L		<0.001	0.008	<0.001	0.003	0.002	0.012	0.002	0.008	<0.001	0.018	0.026	0.017	0.03	0.041
	Cobalt (Filtered)	mg/L		-	<0.001	-	<0.001	-	0.17	-	0.024	-	0.012	0.034	0.14	0.007	0.022
	Copper (Filtered)	mg/L	0.0014	<0.001	0.017	<0.001	0.002	0.004	0.015	0.003	0.005	0.001	0.012	0.021	0.016	0.021	0.021
	Manganese (Filtered)	mg/L	1.9	-	0.092	-	0.44	-	6.6	-	0.81	-	-	-	8.6	-	-
	Mercury (Filtered)	mg/L	0.00006	<0.0005	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
	Molybdenum (Filtered)	mg/L		-	<0.001	-	<0.001	-	<0.001	-	<0.001	-	0.004	0.009	0.001	0.005	0.001
	Nickel (Filtered)	mg/L	0.011	0.016	0.033	<0.001	0.006	0.037	0.19	0.01	0.054	0.052	0.071	0.094	0.15	0.18	0.11
	Selenium (Filtered)	mg/L	0.005	-	0.008	-	<0.005	-	0.009	-	0.006	-	<0.005	<0.005	<0.005	<0.005	0.038
	Tin (Filtered)	mg/L		-	<0.005	-	<0.005	-	<0.005	-	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005
	Vanadium (Filtered)	mg/L		-	<0.005	-	<0.005	-	0.034	-	<0.005	-	-	-	0.015	-	-
	Zinc (Filtered)	mg/L	0.008	0.15	0.2	0.035	0.1	0.2	0.41	0.071	0.053	0.011	0.034	0.049	0.075	0.044	0.15
Nitroaromatics	Pentachloronitrobenzene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
Organochlorine Pesticides	4,4-DDE	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	a-BHC	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Aldrin	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	b-BHC	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Chlordane (cis)	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Chlordane (trans)	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	d-BHC	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	DDD	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	DDT	µg/L	0.006	<10	<2	<10	-	<10	<2	<10	<2	<10	-	-	-	<2	-
	Dieldrin	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endosulfan I	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endosulfan II	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endosulfan sulphate	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endrin	µg/L	0.01	<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endrin aldehyde	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Endrin ketone	µg/L		-	<0.5	-	-	-	<0.5	-	<0.5	-	-	-	-	<0.5	-
	g-BHC (Lindane)	µg/L	0.2	<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Heptachlor	µg/L	0.01	<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Heptachlor epoxide	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Hexachlorobenzene	µg/L		<10	<0.5	<10	-	<10	<0.5	<10	<0.5	<10	-	-	-	<0.5	-
	Methoxychlor	µg/L		-	<2	-	-	-	<2	-	<2	-	-	-	-	<2	-
Organophosphorous Pesticides	Ethyl methanesulfonate	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	Isosafrole (trans)	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	Safrole	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
PAH	7,12-dimethylbenz(a)anthracene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
PAH/Phenols	2,4-dimethylphenol	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2,4-dinitrophenol	mg/L	0.045	<0.1	-	<0.1	-	<0.1	-	<0.1	-	<0.1	-	-	-	-	-
	2-chloronaphthalene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2-methylnaphthalene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	2-methylphenol	µg/L		<10	<2	<10	-	<10	<2	<10	<2	<10	-	-	-	-	-
	2-nitrophenol	µg/L		<10	<2	<10	-	<10	<2	<10	<2	<10	-	-	-	-	-
	3-&4-methylphenol	µg/L		-	<4	-	-	-	<4	-	<4	-	-	-	-	-	-
	3-methylcholanthrene	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	3-Methylphenol	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	4,6-Dinitro-2-methylphenol	µg/L		<100	-	<100	-	<100	-	<100	-	<100	-	-	-	-	-
	4-chloro-3-methylphenol	µg/L		-	<2	-	-	-	<2	-	<2	-	-	-	-	-	-
	4-methylphenol	mg/L		<0.02	-	<0.02	-	<0.02	-	<0.02	-	<0.02	-	-	-	-	-
	4-nitrophenol	µg/L		<100	-	<100	-	<100	-	<100	-	<100	-	-	-	-	-
	Acenaphthene	µg/L		<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-
	Acenaphthylene	µg/L		<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-
	Acetophenone	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C2 Groundwater Analytical Results

LocCode	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW4	GW4	GW6	GW7	GW8	GW9
Sampled_Date-Time	15/05/2009	7/04/2011	15/05/2009	6/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	7/04/2011	6/04/2011	6/04/2011	7/04/2011

Chem_Group	ChemName	Units	ANZECC (2000) Ecosystems Fresh Water (95%)														
PAHs	Anthracene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Benz(a)anthracene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Benzo(a) pyrene	µg/L	0.2A	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-
	Benzo(b)&(k)fluoranthene	µg/L	-	<2	-	-	-	<2	-	<2	-	-	-	-	<2	-	
	Benzo(b)fluoranthene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Benzo(g,h,i)perylene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Benzo(k)fluoranthene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Chrysene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Dibenz(a,h)anthracene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Fluoranthene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Fluorene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Indeno(1,2,3-c,d)pyrene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
	Naphthalene	µg/L	16	<10	<1	<10	<5	<10	<1	<10	<1	<10	<5	<5	<5	<1	<5
	PAHs (Sum of total)	µg/L	-	<2	-	-	-	<2	-	<2	-	-	-	-	<2	-	
	Phenanthrene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-	
Phenol	µg/L	320	<10	<2	<10	-	<10	<2	<10	<2	<10	-	-	-	-		
Pyrene	µg/L	<10	<1	<10	-	<10	<1	<10	<1	<10	-	-	-	<1	-		
Phthalates	Bis(2-ethylhexyl) phthalate	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Butyl benzyl phthalate	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Diethylphthalate	µg/L	1000	<10	-	<10	-	<10	-	<10	-	21	-	-	-	-	
	Dimethyl phthalate	µg/L	3700	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	
	Di-n-butyl phthalate	µg/L	9.9	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	
	Di-n-octyl phthalate	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
Polychlorinated Biphenyls	Arochlor 1016	µg/L	-	<5	-	-	-	<5	-	<5	-	-	-	-	<5	-	
	Arochlor 1232	µg/L	-	<5	-	-	-	<5	-	<5	-	-	-	-	<5	-	
	Arochlor 1242	µg/L	0.3	-	<5	-	-	<5	-	<5	-	-	-	-	<5	-	
	Arochlor 1248	µg/L	-	<5	-	-	-	<5	-	<5	-	-	-	-	<5	-	
	Arochlor 1254	µg/L	0.01	-	<5	-	-	<5	-	<5	-	-	-	-	<5	-	
	Arochlor 1260	µg/L	-	<5	-	-	-	<5	-	<5	-	-	-	-	<5	-	
PCBs (Sum of total)	µg/L	-	<20	-	-	-	<20	-	<20	-	-	-	-	-	-		
Solvents	Methyl Ethyl Ketone	µg/L	-	-	-	<5	-	-	-	-	<5	<5	<5	-	<5		
	2-hexanone (MBK)	µg/L	-	-	-	<5	-	-	-	-	<5	<5	<5	-	<5		
	2-pentanone	µg/L	-	-	-	<5	-	-	-	-	<5	<5	<5	-	<5		
	4-Methyl-2-pentanone	µg/L	-	-	-	<5	-	-	-	-	<5	<5	<5	-	<5		
	Cyclohexane	mg/L	<0.001	-	<0.001	-	<0.001	-	<0.001	-	<0.001	-	-	-	-		
	Ethyl acetate	µg/L	-	-	-	-	-	-	-	-	<5	<5	-	-	-		
	Isophorone	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-		
Vinyl acetate	µg/L	-	-	-	<5	-	-	-	-	<5	<5	<5	-	<5			
SVOCs	1,2,4,5-tetrachlorobenzene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	2-(acetylamino) fluorene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	4-(dimethylamino) azobenzene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	4-bromophenyl phenyl ether	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	4-chlorophenyl phenyl ether	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Azobenzene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Benzyl alcohol	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Bis(2-chloroethoxy) methane	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Bis(2-chloroethyl)ether	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Bis(2-chloroisopropyl) ether	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Carbazole	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Dibenzofuran	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Hexachlorocyclopentadiene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Hexachloroethane	µg/L	290	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	
	Hexachloropropene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	Methapyrilene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
	N-nitrosomorpholine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-	
N-nitrosopiperidine	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-		
Pentachlorobenzene	µg/L	<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-		

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table C2 Groundwater Analytical Results

LocCode	BH4	BH4	BH5	BH5	GW1	GW1	GW2	GW2	GW4	GW4	GW6	GW7	GW8	GW9
Sampled_Date-Time	15/05/2009	7/04/2011	15/05/2009	6/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	15/05/2009	7/04/2011	7/04/2011	6/04/2011	6/04/2011	7/04/2011

Chem_Group	ChemName	Units	ANZECC (2000) Ecosystems Fresh Water (95%)														
	Phenacetin	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
TPH	TPH C6 - C9	µg/L	65 (b)	<10	<20	<10	<20	200	30	<10	<20	<10	<20	<20	<20	<20	<20
	TPH C10 - C14	µg/L		<50	<50	<50	<50	<50	50	<50	<50	<50	<50	<50	<50	<50	<50
	TPH C15 - C28	µg/L		<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH C29-C36	µg/L		<100	<100	<100	<100	<100	100	<100	<100	<100	<100	<100	<100	<100	<100
	TPH+C10 - C36 (Sum of total)	µg/L	1000 (b)	<250	<200	<250	<200	<250	200 - 250	<250	<200	<250	<200	<200	<200	<200	<200
VOCs	1,1,1,2-tetrachloroethane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,1,1-trichloroethane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,1,2,2-tetrachloroethane	µg/L		<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	1,1,2-trichloroethane	µg/L	6500	<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,1-dichloroethane	µg/L		<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	1,1-dichloroethene	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2,3-trichlorobenzene	µg/L	3	<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	1,2,3-trichloropropane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2,4-trichlorobenzene	µg/L	85	<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2-dibromoethane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2-dichlorobenzene	µg/L	160	<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,2-dichloroethane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,3-dichlorobenzene	µg/L	260	<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	1,4-dichlorobenzene	µg/L	60	<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Bromodichloromethane	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Bromoform	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Carbon tetrachloride	µg/L		<1	-	<1	<5	<1	-	<1	-	<1	<5	<5	<5	-	<5
	Chlorobenzene	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5
	Chlorodibromomethane	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5
	Chloroethane	µg/L		<10	<50	<10	<50	<10	<50	<10	<50	<10	<50	<50	<50	<50	<50
	Chloroform	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5
	cis-1,2-dichloroethene	µg/L		<1	<5	<1	<5	98	<5	<1	<5	<1	<5	<5	<5	<5	<5
	cis-1,3-dichloropropene	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5
	Dibromomethane	µg/L		<1	-	<1	-	<1	-	<1	-	<1	-	-	-	-	-
	Dichloromethane	µg/L		-	<20	-	<20	-	<20	-	<20	-	<20	<20	<20	<20	<20
	Hexachlorobutadiene	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5
	Pentachloroethane	µg/L		<10	-	<10	-	<10	-	<10	-	<10	-	-	-	-	-
	Trichloroethene	µg/L	330 ^A	<1	<5	<1	<5	18	<5	<1	<5	<1	<5	<5	<5	<5	<5
	Tetrachloroethene	µg/L	70 ^A	<1	<5	<1	<5	200	20	<1	<5	<1	<5	<5	<5	<5	<5
	trans-1,2-dichloroethene	µg/L		<1	<5	<1	<5	1	<5	<1	<5	<1	<5	<5	<5	<5	<5
trans-1,3-dichloropropene	µg/L		<1	<5	<1	<5	<1	<5	<1	<5	<1	<5	<5	<5	<5	<5	
Trichlorofluoromethane	µg/L		<10	<50	<10	<50	<10	<50	<10	<50	<10	<50	<50	<50	<50	<50	
Vinyl chloride	µg/L		<10	<1	<10	<1	22	<1	<10	<1	<10	<1	<1	<1	<1	<1	

Comments

A - Low reliability trigger value

B - threshold concentration from Table 3 titled 'Threshold Concentrations for Sensitive Land Use – Soils' in the "Guidelines for Assessing Service Station Sites" (NSW EPA, 1994).



Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment

Table C3 Groundwater Field Parameters

Well	D.O (mg/L)	E.C (us/cm)	pH	Eh (mv)	Temp (°C)	Comments
BH4	0.47	169	5.26	114.2	23.1	Clear. No odour or sheen.
BH5	0.01	329	6.84	-197	21.5	Clear. No odour or sheen.
GW1	0.77	6201	5.38	94.3	21.2	Cloudy. No odour or sheen.
GW2	0.13	875	5.87	-67	24.4	Clear. No odour or sheen.
GW4	2.16	13222	6.59	-140	20.6	Cloudy/yellow, turbid brown, no odours or sheen.
GW6	5.15	19744	6.62	108.4	19.6	Very turbid, brown.
GW7	0.89	11828	5.78	48.8	19.9	Clear to cloudy. No odour or sheen.
GW8	0.82	17988	6.36	33.4	22.3	Clear. No odour or sheen.
GW9	2.77	8495	5.62	111.7	22.4	Slightly cloudy to clear.



Appendix D

Laboratory Reports and Chain of Custody Documentation

**Pacific Brands, Wentworthville Phase 2 ESA
Laboratory Reports - Asbestos**

Sample Location	Laboratory Report No.
TP25	54368
TP30A	54368
TP31A	54368
TP32A	54368
TP33	54368
TP40	54368



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

54368

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Ellen Swanson / Adam Tilling

Sample log in details:

Your Reference:	<u>2120474, Pacific Brands</u>
No. of samples:	11 Materials
Date samples received / completed instructions received	15/04/11 / 15/04/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 27/04/11 / 20/04/11
Date of Preliminary Report: Not Issued

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Results Approved By:



Paul Ching
Approved Signatory

Envirolab Reference: 54368
Revision No: R 00



Asbestos ID - materials Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	54368-1 TP25 24/03/2011 Material	54368-2 TP30A 24/03/2011 Material	54368-6 TP31A 24/03/2011 Material	54368-8 TP32A 24/03/2011 Material	54368-10 TP33 24/03/2011 Material
Date analysed	-	20/04/2011	20/04/2011	20/04/2011	20/04/2011	20/04/2011
Mass / Dimension of Sample	-	35x34x4mm	112x67x40m m	111x50x18m m	79x64x17mm	124x87x10m m
Sample Description	-	Fibre Cement Sheet	Fibre Cement Sheet	Fibre Cement Sheet	Fibre Cement Sheet	Fibre Cement Sheet
Asbestos ID in materials	-	Chrysotile asbestos detected	Chrysotile asbestos detected Amosite asbestos detected Crocidolite asbestos detected	Chrysotile asbestos detected Amosite asbestos detected	Chrysotile asbestos detected Amosite asbestos detected	Chrysotile asbestos detected

Asbestos ID - materials Our Reference: Your Reference Date Sampled Type of sample	UNITS ----- -----	54368-11 TP40 24/03/2011 Material
Date analysed	-	20/04/2011
Mass / Dimension of Sample	-	85x46x27mm
Sample Description	-	Fibre Cement Sheet
Asbestos ID in materials	-	Chrysotile asbestos detected Amosite asbestos detected

Method ID	Methodology Summary
AS4964-2004	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Report Comments:

Asbestos ID was analysed by Approved Identifier: Alex Tam
Asbestos ID was authorised by Approved Signatory: Paul Ching

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

**Pacific Brands, Wentworthville Phase 2 ESA
Laboratory Reports - Groundwater**

Sample Location	Laboratory Report No.
BH4	295938, 298166, 298189
BH5	295853, 298189
GW1	295938, 298166, 298189
GW2	295938, 298166, 298189
GW4	295938, 298189
GW6	295938, 298189
GW7	295853, 298189
GW8	295853, 298166, 298189
GW9	295938, 298189
RB2	295938
QA1	295853, 298189
Trip Blank	295853

Savita Rodrigues

295853

From: Leanne Knowles
Sent: Thursday, 7 April 2011 5:38 PM
To: Savita Rodrigues
Subject: FW: Emailing: 2120474 - ALS COC (Groundwater Samples 6 April 2011).xls, 2120474 - MGT Labmark COC (Groundwater Samples collected 6 April 2011).xls
Attachments: 2120474 - ALS COC (Groundwater Samples 6 April 2011).xls; 2120474 - MGT Labmark COC (Groundwater Samples collected 6 April 2011).xls

Leanne Knowles**Client Services & Reporting Manager NSW**

M 0488 785 666

Please note we have moved from Asquith to Lane Cove new address details below

**Reception**

Unit F6, Building F
 16 Mars Road
 Lane Cove West, NSW 2066
 T:(+61) (2) 8215 6222
 F:(+61) (2) 9420 2977

Sample Receipt

Unit F3, Building F
 16 Mars Road
 Lane Cove West, NSW 2066
 T:(+61) (2) 8215 6222
 F:(+61) (2) 9654 7190

♻️ Please consider the environment before printing this e-mail

From: George.Iliopoulos@ghd.com [mailto:George.Iliopoulos@ghd.com]
Sent: Thursday, 7 April 2011 5:17 PM
To: Leanne Knowles
Cc: Adam.Tilling@ghd.com
Subject: Emailing: 2120474 - ALS COC (Groundwater Samples 6 April 2011).xls, 2120474 - MGT Labmark COC (Groundwater Samples collected 6 April 2011).xls

Hi Leanne,

Please find attached coc for water samples picked up today.

Please note, more samples will be available tomorrow morning. Ill let you know when.

Please include adam tilling in the correspondance please as i will be on leave next week.

Thanks for your help.

The message is ready to be sent with the following file or link attachments:

2120474 - ALS COC (Groundwater Samples 6 April 2011).xls

2120474 - MGT Labmark COC (Groundwater Samples collected 6 April 2011).xls

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

George Iliopoulos
Environmental Engineer – Contamination Assessment & Remediation


GHD Accomplish More Together

T: 61 2 9239 7492 | F: 61 2 9239 7199 | V: 217492 | M: 61 419 691 836 | E: george.iliopoulos@ghd.com

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7/04/2011

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295853

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This e-mail has been scanned for viruses by MessageLabs.

Ellen Scott-Aitken

From: Adam.Tilling@ghd.com
Sent: Monday, 11 April 2011 3:46 PM
To: Ellen Scott-Aitken
Subject: Re: mgt-Labmark Sample Receipt Advice - Report 295938 : Site PACIFIC BRANDS WENTWORTHVILLE 2120474

Thanks Ellen

~~Can you please add analysis of Ammonia to samples GW1, GW2 and BH4 for *mgt no.* 295938~~

Could you also add analysis of Ammonia to sample GW8 for *mgt no.* 295853.

Thanks

EMH 110411 295853

Adam

Adam Tilling
Project Manager / Senior Hydrogeologist

GHD Accomplish More Together

T: 03 8687 8471 | M: 0448 005 299 | V: 318471 | T: 03 8687 8111 | adam.tilling@ghd.com
 Level 8, 180 Lonsdale St, Melbourne, Vic 3000, Australia | <http://www.ghd.com/>

[Water](#) | [Energy & Resources](#) | [Environment](#) | [Property & Buildings](#) | [Transportation](#)

Please consider the environment before printing this email

From: <ellen.scottaitken@labmark.com.au>
To: <adam.tilling@ghd.com.au>
Cc: <George.Iliopoulos@ghd.com>
Date: 11/04/2011 03:02 PM
Subject: mgt-Labmark Sample Receipt Advice - Report 295938 : Site PACIFIC BRANDS WENTWORTHVILLE 2120474

Dear Valued Client,
 Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your mgt-LabMark Client Services Manager as soon as possible to make certain that they get changed.
 Please send all reply correspondence to enviro.sydney@labmark.com.au

This e-mail has been scanned for viruses by MessageLabs. [attachment "295938_COC.pdf" deleted by Adam Tilling/Melbourne/GHD/AU] [attachment "295938_sample_receipt_coc.pdf" deleted by Adam Tilling/Melbourne/GHD/AU]

12/04/2011

Certificate of Analysis

GHD Pty Ltd NSW
 Level 15, 133 Castlereagh Street
 Sydney
 New South Wales 2000



NATA Accredited
 Accreditation Number 1261
 Site Number 18217

This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: Adam Tilling

Report 295853-W
 Client Reference PACIFIC BRANDS WENTWORTHVILLE 2120474
 Received Date Apr 08, 2011

Client Sample ID			BH5 Water	GW7 Water	GW8 Water	QA1 Water
Sample Matrix			S11-Ap30381	S11-Ap30382	S11-Ap30383	S11-Ap30384
mgt-LabMark Sample No.			Apr 06, 2011	Apr 06, 2011	Apr 06, 2011	Apr 06, 2011
Date Sampled	LOR	Unit				
Test/Reference						
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Volatile Halogenated Compounds (VHC)						
Chlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
cis-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dibromochloromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Methylene Chloride	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Tetrachloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
trans-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
trans-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Toluene-d8 (surr.)	1	%	102	102	101	101
Pentafluorobenzene (surr.)	1	%	99	103	101	101
Volatile Organic Compounds (VOC)						
1.1-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.1.1-Trichloroethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.1.1.2-Tetrachloroethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.1.2-Trichloroethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2-Dibromo-3-chloropropane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2-Dibromoethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2-Dichloroethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2-Dichloropropane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2.3-Trichloropropane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.2.4-Trimethylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.3-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.3-Dichloropropane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.3.5-Trimethylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
1.4-Dichlorobenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
2-Butanone (MEK)	0.005	mg/L	< 0.005	< 0.005	-	< 0.005

Client Sample ID			BH5	GW7	GW8	QA1
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30381	S11-Ap30382	S11-Ap30383	S11-Ap30384
Date Sampled			Apr 06, 2011	Apr 06, 2011	Apr 06, 2011	Apr 06, 2011
Test/Reference	LOR	Unit				
2-Chlorotoluene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
2-Hexanone	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
2-Pentanone	0.005		< 0.005	< 0.005	-	< 0.005
4-Chlorotoluene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Bromodichloromethane	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Bromoform	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Bromomethane	0.05	mg/L	< 0.05	< 0.05	-	< 0.05
Carbon Tetrachloride	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
n-Butylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
n-Propylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Naphthalene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
p-Isopropyltoluene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
sec-Butylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Styrene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
tert-Butylbenzene	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl acetate	0.005	mg/L	< 0.005	< 0.005	-	< 0.005
4-Bromofluorobenzene (surr.)	1	%	108	107	-	106
BTEX						
Xylenes(ortho.meta and para)	0.003	mg/L	-	-	< 0.003	-
Monocyclic Aromatic Hydrocarbons						
Fluorobenzene (surr.)	1	%	-	-	101	-
Total Recoverable Hydrocarbons						
TRH C10-C14 Fraction by GC	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.2	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.005	mg/L	-	-	< 0.005	-
Aroclor-1232	0.005	mg/L	-	-	< 0.005	-
Aroclor-1242	0.005	mg/L	-	-	< 0.005	-
Aroclor-1248	0.005	mg/L	-	-	< 0.005	-
Aroclor-1254	0.005	mg/L	-	-	< 0.005	-
Aroclor-1260	0.005	mg/L	-	-	< 0.005	-
Dibutylchlorendate (surr.)	1	%	-	-	111	-
Organochlorine Pesticides (OC)						
4,4'-DDD	0.0005	mg/L	-	-	< 0.0005	-
4,4'-DDE	0.0005	mg/L	-	-	< 0.0005	-
4,4'-DDT	0.002	mg/L	-	-	< 0.002	-
a-BHC	0.0005	mg/L	-	-	< 0.0005	-
a-Chlordane	0.0005	mg/L	-	-	< 0.0005	-
Aldrin	0.0005	mg/L	-	-	< 0.0005	-
b-BHC	0.0005	mg/L	-	-	< 0.0005	-

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled			BH5 Water S11-Ap30381 Apr 06, 2011	GW7 Water S11-Ap30382 Apr 06, 2011	GW8 Water S11-Ap30383 Apr 06, 2011	QA1 Water S11-Ap30384 Apr 06, 2011
Test/Reference	LOR	Unit				
d-BHC	0.0005	mg/L	-	-	< 0.0005	-
Dieldrin	0.0005	mg/L	-	-	< 0.0005	-
Endosulfan I	0.0005	mg/L	-	-	< 0.0005	-
Endosulfan II	0.0005	mg/L	-	-	< 0.0005	-
Endosulfan sulphate	0.0005	mg/L	-	-	< 0.0005	-
Endrin	0.0005	mg/L	-	-	< 0.0005	-
Endrin aldehyde	0.0005	mg/L	-	-	< 0.0005	-
Endrin ketone	0.0005	mg/L	-	-	< 0.0005	-
g-BHC (Lindane)	0.0005	mg/L	-	-	< 0.0005	-
g-Chlordane	0.0005	mg/L	-	-	< 0.0005	-
Heptachlor	0.0005	mg/L	-	-	< 0.0005	-
Heptachlor epoxide	0.0005	mg/L	-	-	< 0.0005	-
Hexachlorobenzene	0.0005	mg/L	-	-	< 0.0005	-
Methoxychlor	0.002	mg/L	-	-	< 0.002	-
Tetrachloro-m-xylene (surr.)	1	%	-	-	100	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.001	mg/L	-	-	< 0.001	-
Acenaphthylene	0.001	mg/L	-	-	< 0.001	-
Anthracene	0.001	mg/L	-	-	< 0.001	-
Benz(a)anthracene	0.001	mg/L	-	-	< 0.001	-
Benzo(a)pyrene	0.001	mg/L	-	-	< 0.001	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	-	-	< 0.002	-
Benzo(g,h,i)perylene	0.001	mg/L	-	-	< 0.001	-
Chrysene	0.001	mg/L	-	-	< 0.001	-
Dibenz(a,h)anthracene	0.001	mg/L	-	-	< 0.001	-
Fluoranthene	0.001	mg/L	-	-	< 0.001	-
Fluorene	0.001	mg/L	-	-	< 0.001	-
Indeno(1,2,3-cd)pyrene	0.001	mg/L	-	-	< 0.001	-
Naphthalene	0.001	mg/L	-	-	< 0.001	-
Phenanthrene	0.001	mg/L	-	-	< 0.001	-
Pyrene	0.001	mg/L	-	-	< 0.001	-
Total PAH	0.002	mg/L	-	-	< 0.002	-
2-Fluorobiphenyl (surr.)	1	%	-	-	87	-
p-Terphenyl-d14 (surr.)	1	%	-	-	75	-
Ammonia(N)	0.01	mg/L	0.12	0.17	2.7	0.16
Cyanide (total)	0.005	mg/L	-	-	< 0.005	-
pH	0.1	units	-	-	6.8	-
Sulphate (S)	2	mg/L	-	-	220	-
Total Dissolved Solids	5	mg/L	170	6500	-	7000
Heavy Metals						
Antimony (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic (filtered)	0.001	mg/L	< 0.001	0.022	0.014	0.023
Beryllium (filtered)	0.001	mg/L	-	-	< 0.001	-
Boron (filtered)	0.01	mg/L	0.11	0.05	-	0.05
Cadmium (filtered)	0.0001	mg/L	< 0.0001	0.0001	< 0.0001	0.0001
Chromium (filtered)	0.001	mg/L	0.003	0.017	0.030	0.017
Cobalt (filtered)	0.001	mg/L	< 0.001	0.14	0.007	0.13
Copper (filtered)	0.001	mg/L	0.002	0.016	0.021	0.018

Client Sample ID			BH5	GW7	GW8	QA1
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30381	S11-Ap30382	S11-Ap30383	S11-Ap30384
Date Sampled			Apr 06, 2011	Apr 06, 2011	Apr 06, 2011	Apr 06, 2011
Test/Reference	LOR	Unit				
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.001	mg/L	0.44	8.6	-	9.2
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Molybdenum (filtered)	0.001	mg/L	< 0.001	0.001	0.005	0.001
Nickel (filtered)	0.001	mg/L	0.006	0.15	0.18	0.15
Selenium (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Tin (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium (filtered)	0.005	mg/L	< 0.005	0.015	-	0.11
Zinc (filtered)	0.005	mg/L	0.10	0.075	0.044	0.072

Client Sample ID			TRIP BLANK
Sample Matrix			Water
mgt-LabMark Sample No.			S11-Ap30385
Date Sampled			Apr 06, 2011
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons			
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02
Volatile Organic Compounds (VOC)			
Benzene	0.001	mg/L	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001
o-Xylene	0.001	mg/L	< 0.001
Toluene	0.001	mg/L	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002
4-Bromofluorobenzene (surr.)	1	%	119
BTEX			
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003
Total BTEX	0.01	mg/L	< 0.01

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Apr 07, 2011	14 Day
Volatile Halogenated Compounds (VHC) - Method: E016 Volatile Halogenated Compounds (VHC)	Sydney	Apr 11, 2011	14 Day
Volatile Organic Compounds (VOC) - Method: E016 Volatile Organic Compounds (VOC)	Sydney	Apr 11, 2011	14 Day
Total Recoverable Hydrocarbons - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Apr 08, 2011	7 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Apr 08, 2011	7 Day
Organochlorine Pesticides (OC) - Method: E013 Organochlorine Pesticides (OC)	Sydney	Apr 08, 2011	7 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Apr 08, 2011	7 Day
Ammonia(N) - Method: E036/E050 Ammonia as N	Sydney	Apr 12, 2011	28 Day
Cyanide (total) - Method: E040 /E054 Total Cyanide	Sydney	Apr 07, 2011	14 Day
pH - Method: E018 pH	Sydney	Apr 08, 2011	1 Day
Sulphate (S) - Method: E045 Sulphate	Sydney	Apr 11, 2011	28 Day
Total Dissolved Solids - Method: 4110 Total Dissolved Solids	Sydney	Apr 07, 2011	7 Day
Antimony (filtered)	Sydney	Apr 14, 2011	180 Day

mgt-LabMark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis.
7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

UNITS

mg/kg: milligrams per Kilogram	mg/L: milligrams per litre
µg/l: micrograms per litre	ppm: Parts per million
ppb: Parts per billion	%: Percentage
org/100ml: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-20%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Method Blank						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon						
TRH C6-C9 Fraction by GC	mg/L	< 0.02		0.02	Pass	
Method Blank						
Volatile Halogenated Compounds (VHC) E016 Volatile Halogen						
Chlorobenzene	mg/L	< 0.005		0.005	Pass	
Chloroethane	mg/L	< 0.05		0.05	Pass	
Chloroform	mg/L	< 0.005		0.005	Pass	
Chloromethane	mg/L	< 0.05		0.05	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.005		0.005	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.005		0.005	Pass	
Dibromochloromethane	mg/L	< 0.005		0.005	Pass	
Dichlorodifluoromethane	mg/L	< 0.05		0.05	Pass	
Hexachlorobutadiene	mg/L	< 0.005		0.005	Pass	
Methylene Chloride	mg/L	< 0.02		0.02	Pass	
Tetrachloroethene	mg/L	< 0.005		0.005	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.005		0.005	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.005		0.005	Pass	
Trichloroethene	mg/L	< 0.005		0.005	Pass	
Trichlorofluoromethane	mg/L	< 0.05		0.05	Pass	
Vinyl chloride	mg/L	< 0.05		0.05	Pass	
Method Blank						
Volatile Organic Compounds (VOC) E016 Volatile Organic Comp						
1.1-Dichloroethene	mg/L	< 0.005		0.005	Pass	
1.1.1-Trichloroethane	mg/L	< 0.005		0.005	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.005		0.005	Pass	
1.1.2-Trichloroethane	mg/L	< 0.005		0.005	Pass	
1.2-Dibromo-3-chloropropane	mg/L	< 0.005		0.005	Pass	
1.2-Dibromoethane	mg/L	< 0.005		0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.2-Dichloroethane	mg/L	< 0.005		0.005	Pass	
1.2-Dichloropropane	mg/L	< 0.005		0.005	Pass	
1.2.3-Trichloropropane	mg/L	< 0.005		0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.005		0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.3-Dichloropropane	mg/L	< 0.005		0.005	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.005		0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
2-Butanone (MEK)	mg/L	< 0.005		0.005	Pass	
2-Chlorotoluene	mg/L	< 0.005		0.005	Pass	
2-Hexanone	mg/L	< 0.005		0.005	Pass	
2-Pentanone		< 0.005		0.005	Pass	
4-Chlorotoluene	mg/L	< 0.005		0.005	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005		0.005	Pass	
Benzene	mg/L	< 0.001		0.001	Pass	
Bromobenzene	mg/L	< 0.005		0.005	Pass	
Bromodichloromethane	mg/L	< 0.005		0.005	Pass	
Bromoform	mg/L	< 0.005		0.005	Pass	
Bromomethane	mg/L	< 0.05		0.05	Pass	
Carbon Tetrachloride	mg/L	< 0.005		0.005	Pass	
Ethylbenzene	mg/L	< 0.001		0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.005		0.005	Pass	
n-Butylbenzene	mg/L	< 0.005		0.005	Pass	
n-Propylbenzene	mg/L	< 0.005		0.005	Pass	
Naphthalene	mg/L	< 0.005		0.005	Pass	
o-Xylene	mg/L	< 0.001		0.001	Pass	
p-Isopropyltoluene	mg/L	< 0.005		0.005	Pass	
sec-Butylbenzene	mg/L	< 0.005		0.005	Pass	
Styrene	mg/L	< 0.005		0.005	Pass	
tert-Butylbenzene	mg/L	< 0.005		0.005	Pass	
Toluene	mg/L	< 0.001		0.001	Pass	
Total m+p-Xylenes	mg/L	< 0.002		0.002	Pass	
Vinyl acetate	mg/L	< 0.005		0.005	Pass	

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Method Blank						
BTEX E029/E016 BTEX						
Xylenes(ortho.meta and para)	mg/L	< 0.003		0.003	Pass	
Total BTEX	mg/L	< 0.01		0.01	Pass	
Method Blank						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon						
TRH C10-C14 Fraction by GC	mg/L	< 0.05		0.05	Pass	
TRH C15-C28 Fraction by GC	mg/L	< 0.1		0.1	Pass	
TRH C29-C36 Fraction by GC	mg/L	< 0.1		0.1	Pass	
Method Blank						
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphen						
Aroclor-1016	mg/L	< 0.005		0.005	Pass	
Aroclor-1232	mg/L	< 0.005		0.005	Pass	
Aroclor-1242	mg/L	< 0.005		0.005	Pass	
Aroclor-1248	mg/L	< 0.005		0.005	Pass	
Aroclor-1254	mg/L	< 0.005		0.005	Pass	
Aroclor-1260	mg/L	< 0.005		0.005	Pass	
Method Blank						
Organochlorine Pesticides (OC) E013 Organochlorine Pesticid						
4,4'-DDD	mg/L	< 0.0005		0.0005	Pass	
4,4'-DDE	mg/L	< 0.0005		0.0005	Pass	
4,4'-DDT	mg/L	< 0.002		0.002	Pass	
a-BHC	mg/L	< 0.0005		0.0005	Pass	
a-Chlordane	mg/L	< 0.0005		0.0005	Pass	
Aldrin	mg/L	< 0.0005		0.0005	Pass	
b-BHC	mg/L	< 0.0005		0.0005	Pass	
d-BHC	mg/L	< 0.0005		0.0005	Pass	
Dieldrin	mg/L	< 0.0005		0.0005	Pass	
Endosulfan I	mg/L	< 0.0005		0.0005	Pass	
Endosulfan II	mg/L	< 0.0005		0.0005	Pass	
Endosulfan sulphate	mg/L	< 0.0005		0.0005	Pass	
Endrin	mg/L	< 0.0005		0.0005	Pass	
Endrin aldehyde	mg/L	< 0.0005		0.0005	Pass	
Endrin ketone	mg/L	< 0.0005		0.0005	Pass	
g-BHC (Lindane)	mg/L	< 0.0005		0.0005	Pass	
g-Chlordane	mg/L	< 0.0005		0.0005	Pass	
Heptachlor	mg/L	< 0.0005		0.0005	Pass	
Heptachlor epoxide	mg/L	< 0.0005		0.0005	Pass	
Hexachlorobenzene	mg/L	< 0.0005		0.0005	Pass	
Methoxychlor	mg/L	< 0.002		0.002	Pass	
Method Blank						
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydroc						
Acenaphthene	mg/L	< 0.001		0.001	Pass	
Acenaphthylene	mg/L	< 0.001		0.001	Pass	
Anthracene	mg/L	< 0.001		0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001		0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001		0.001	Pass	
Benzo(b)fluoranthene & Benzo(k)fluor	mg/L	< 0.002		0.002	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001		0.001	Pass	
Chrysene	mg/L	< 0.001		0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001		0.001	Pass	
Fluoranthene	mg/L	< 0.001		0.001	Pass	
Fluorene	mg/L	< 0.001		0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001		0.001	Pass	
Naphthalene	mg/L	< 0.001		0.001	Pass	
Phenanthrene	mg/L	< 0.001		0.001	Pass	
Pyrene	mg/L	< 0.001		0.001	Pass	
Method Blank						
Ammonia(N)	mg/L	< 0.01		0.01	Pass	
Cyanide (total)	mg/L	< 0.005		0.005	Pass	
Sulphate (S)	mg/L	< 2		2	Pass	
Total Dissolved Solids	mg/L	< 5		5	Pass	
Method Blank						
Antimony (filtered)	mg/L	< 0.005		0.005	Pass	

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Arsenic (filtered)	mg/L	< 0.001		0.001	Pass	
Beryllium (filtered)	mg/L	< 0.001		0.001	Pass	
Boron (filtered)	mg/L	< 0.01		0.01	Pass	
Cadmium (filtered)	mg/L	< 0.0001		0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001		0.001	Pass	
Cobalt (filtered)	mg/L	< 0.001		0.001	Pass	
Copper (filtered)	mg/L	< 0.001		0.001	Pass	
Lead (filtered)	mg/L	< 0.001		0.001	Pass	
Manganese (filtered)	mg/L	< 0.001		0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001		0.0001	Pass	
Molybdenum (filtered)	mg/L	< 0.001		0.001	Pass	
Nickel (filtered)	mg/L	< 0.001		0.001	Pass	
Selenium (filtered)	mg/L	< 0.005		0.005	Pass	
Tin (filtered)	mg/L	< 0.005		0.005	Pass	
Vanadium (filtered)	mg/L	< 0.005		0.005	Pass	
Zinc (filtered)	mg/L	< 0.005		0.005	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon		Result 1				
TRH C6-C9 Fraction by GC	%	101		70-130	Pass	
LCS - % Recovery						
Volatile Halogenated Compounds (VHC) E016 Volatile Halogen		Result 1				
Chlorobenzene	%	104		70-130	Pass	
Chloroethane	%	100		70-130	Pass	
Chloroform	%	101		70-130	Pass	
Chloromethane	%	92		70-130	Pass	
cis-1.2-Dichloroethene	%	99		70-130	Pass	
cis-1.3-Dichloropropene	%	98		70-130	Pass	
Dibromochloromethane	%	96		70-130	Pass	
Dichlorodifluoromethane	%	98		70-130	Pass	
Hexachlorobutadiene	%	100		70-130	Pass	
Methylene Chloride	%	101		70-130	Pass	
Tetrachloroethene	%	99		70-130	Pass	
trans-1.2-Dichloroethene	%	101		70-130	Pass	
trans-1.3-Dichloropropene	%	97		70-130	Pass	
Trichloroethene	%	99		70-130	Pass	
Trichlorofluoromethane	%	100		70-130	Pass	
Vinyl chloride	%	93		70-130	Pass	
LCS - % Recovery						
Volatile Organic Compounds (VOC) E016 Volatile Organic Com		Result 1				
1.1-Dichloroethene	%	101		70-130	Pass	
1.1.1-Trichloroethane	%	100		70-130	Pass	
1.1.1.2-Tetrachloroethane	%	102		70-130	Pass	
1.1.2-Trichloroethane	%	99		70-130	Pass	
1.2-Dibromo-3-chloropropane	%	96		70-130	Pass	
1.2-Dibromoethane	%	99		70-130	Pass	
1.2-Dichlorobenzene	%	102		70-130	Pass	
1.2-Dichloroethane	%	97		70-130	Pass	
1.2-Dichloropropane	%	99		70-130	Pass	
1.2.3-Trichloropropane	%	100		70-130	Pass	
1.2.4-Trichlorobenzene	%	98		70-130	Pass	
1.2.4-Trimethylbenzene	%	103		70-130	Pass	
1.3-Dichlorobenzene	%	101		70-130	Pass	
1.3-Dichloropropane	%	99		70-130	Pass	
1.3.5-Trimethylbenzene	%	102		70-130	Pass	
1.4-Dichlorobenzene	%	101		70-130	Pass	
2-Butanone (MEK)	%	98		70-130	Pass	
2-Chlorotoluene	%	101		70-130	Pass	
2-Hexanone	%	96		70-130	Pass	
2-Pentanone	%	95		70-130	Pass	
4-Chlorotoluene	%	101		70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	96		70-130	Pass	
Benzene	%	100		70-130	Pass	
Bromobenzene	%	102		70-130	Pass	
Bromodichloromethane	%	98		70-130	Pass	
Bromoform	%	98		70-130	Pass	
Bromomethane	%	105		70-130	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Carbon Tetrachloride	%	101			70-130	Pass	
Ethylbenzene	%	105			70-130	Pass	
Isopropyl benzene (Cumene)	%	104			70-130	Pass	
n-Butylbenzene	%	101			70-130	Pass	
n-Propylbenzene	%	101			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
o-Xylene	%	104			70-130	Pass	
p-Isopropyltoluene	%	101			70-130	Pass	
sec-Butylbenzene	%	103			70-130	Pass	
Styrene	%	102			70-130	Pass	
tert-Butylbenzene	%	102			70-130	Pass	
Toluene	%	100			70-130	Pass	
Total m+p-Xylenes	%	104			70-130	Pass	
Vinyl acetate	%	96			70-130	Pass	
LCS - % Recovery							
BTEX E029/E016 BTEX		Result 1					
Xylenes(ortho.meta and para)	%	98			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon		Result 1					
TRH C15-C28 Fraction by GC	%	88			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphen		Result 1					
Aroclor-1248	%	126			70-130	Pass	
Aroclor-1254	%	97			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides (OC) E013 Organochlorine Pesticid		Result 1					
4.4'-DDD	%	107			70-130	Pass	
4.4'-DDE	%	93			70-130	Pass	
4.4'-DDT	%	70			70-130	Pass	
a-BHC	%	94			70-130	Pass	
a-Chlordane	%	95			70-130	Pass	
Aldrin	%	98			70-130	Pass	
b-BHC	%	101			70-130	Pass	
d-BHC	%	92			70-130	Pass	
Dieldrin	%	91			70-130	Pass	
Endosulfan I	%	95			70-130	Pass	
Endosulfan II	%	89			70-130	Pass	
Endosulfan sulphate	%	75			70-130	Pass	
Endrin	%	80			70-130	Pass	
Endrin aldehyde	%	109			70-130	Pass	
Endrin ketone	%	90			70-130	Pass	
g-BHC (Lindane)	%	90			70-130	Pass	
g-Chlordane	%	95			70-130	Pass	
Heptachlor	%	77			70-130	Pass	
Heptachlor epoxide	%	96			70-130	Pass	
Hexachlorobenzene	%	95			70-130	Pass	
Methoxychlor	%	91			70-130	Pass	
LCS - % Recovery							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydroca		Result 1					
Acenaphthene	%	100			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	93			70-130	Pass	
Benz(a)anthracene	%	107			70-130	Pass	
Benzo(a)pyrene	%	120			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluorar	%	116			70-130	Pass	
Benzo(g,h,i)perylene	%	88			70-130	Pass	
Chrysene	%	106			70-130	Pass	
Dibenz(a,h)anthracene	%	97			70-130	Pass	
Fluoranthene	%	110			70-130	Pass	
Fluorene	%	103			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
Phenanthrene	%	98			70-130	Pass	
Pyrene	%	112			70-130	Pass	
LCS - % Recovery							
		Result 1					

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Ammonia(N)	%	99			70-130	Pass	
Cyanide (total)	%	93			70-130	Pass	
Sulphate (S)	%	99			70-130	Pass	
LCS - % Recovery							
		Result 1					
Antimony (filtered)	%	103			70-130	Pass	
Arsenic (filtered)	%	105			70-130	Pass	
Beryllium (filtered)	%	94			70-130	Pass	
Boron (filtered)	%	97			70-130	Pass	
Cadmium (filtered)	%	97			70-130	Pass	
Chromium (filtered)	%	96			70-130	Pass	
Cobalt (filtered)	%	98			70-130	Pass	
Copper (filtered)	%	99			70-130	Pass	
Lead (filtered)	%	101			70-130	Pass	
Manganese (filtered)	%	95			70-130	Pass	
Mercury (filtered)	%	100			70-130	Pass	
Molybdenum (filtered)	%	96			70-130	Pass	
Nickel (filtered)	%	98			70-130	Pass	
Selenium (filtered)	%	96			70-130	Pass	
Tin (filtered)	%	99			70-130	Pass	
Vanadium (filtered)	%	74			70-130	Pass	
Zinc (filtered)	%	100			70-130	Pass	
[Duplicate of S11-Ap30381]							
Total Recoverable Hydrocarbons		Result 1	Result 2	RPD			
TRH C6-C9 Fraction by GC	mg/L	< 0.02	< 0.02	<1	30%	Pass	
[Duplicate of S11-Ap30381]							
BTEX		Result 1	Result 2	RPD			
Xylenes(ortho.meta and para)	mg/L	< 0.003	< 0.003	<1	30%	Pass	
[Duplicate of S11-Ap30381]							
Total Recoverable Hydrocarbons		Result 1	Result 2	RPD			
TRH C10-C14 Fraction by GC	mg/L	< 0.05	< 0.05	<1	30%	Pass	
TRH C15-C28 Fraction by GC	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C29-C36 Fraction by GC	mg/L	< 0.1	< 0.1	<1	30%	Pass	
[Duplicate of S11-Ap30381]							
		Result 1	Result 2	RPD			
Ammonia(N)	mg/L	0.12	0.11	1	30%	Pass	
Total Dissolved Solids	mg/L	170	170	2	30%	Pass	
[Duplicate of S11-Ap30381]							
		Result 1	Result 2	RPD			
Antimony (filtered)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Arsenic (filtered)	mg/L	< 0.001	0.001	60	30%	Fail	Q15
Boron (filtered)	mg/L	0.11	0.11	6	30%	Pass	
Cadmium (filtered)	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Chromium (filtered)	mg/L	0.003	0.003	12	30%	Pass	
Cobalt (filtered)	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Copper (filtered)	mg/L	0.002	< 0.001	130	30%	Fail	Q15
Lead (filtered)	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	mg/L	0.44	0.48	8	30%	Pass	
Mercury (filtered)	mg/L	< 0.0001	< 0.0001	1	30%	Pass	
Molybdenum (filtered)	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Nickel (filtered)	mg/L	0.006	0.006	7	30%	Pass	
Selenium (filtered)	mg/L	< 0.005	< 0.005	200	30%	Fail	Q15
Tin (filtered)	mg/L	< 0.005	< 0.005	200	30%	Fail	Q15
Vanadium (filtered)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Zinc (filtered)	mg/L	0.1	0.1	3	30%	Pass	
[Duplicate of S11-Ap30324 - BATCH]							
Polyaromatic Hydrocarbons (PAH)		Result 1	Result 2	RPD			
Acenaphthene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoran	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Fluoranthene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
[Duplicate of S11-Ap30383]							
		Result 1	Result 2	RPD			
Cyanide (total)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
[Spike of S11-Ap30382] - % Recovery							
Total Recoverable Hydrocarbons		Result 1					
TRH C6-C9 Fraction by GC	%	104			70 - 130	Pass	
TRH C15-C28 Fraction by GC	%	77			70 - 130	Pass	
[Spike of S11-Ap30383] - % Recovery							
Polyaromatic Hydrocarbons (PAH)		Result 1					
Acenaphthene	%	98			70 - 130	Pass	
Acenaphthylene	%	104			70 - 130	Pass	
Anthracene	%	94			70 - 130	Pass	
Benz(a)anthracene	%	85			70 - 130	Pass	
Benzo(a)pyrene	%	102			70 - 130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	%	102			70 - 130	Pass	
Benzo(g,h,i)perylene	%	90			70 - 130	Pass	
Chrysene	%	100			70 - 130	Pass	
Dibenz(a,h)anthracene	%	95			70 - 130	Pass	
Fluoranthene	%	94			70 - 130	Pass	
Fluorene	%	93			70 - 130	Pass	
Indeno(1.2.3-cd)pyrene	%	95			70 - 130	Pass	
Naphthalene	%	93			70 - 130	Pass	
Phenanthrene	%	91			70 - 130	Pass	
Pyrene	%	93			70 - 130	Pass	
[Spike of S11-Ap30381] - % Recovery							
		Result 1					
Ammonia(N)	%	95			70 - 130	Pass	
Cyanide (total)	%	90			70 - 130	Pass	
Sulphate (S)	%	100			70 - 130	Pass	
[Spike of S11-Ap30382] - % Recovery							
		Result 1					
Antimony (filtered)	%	103			70 - 130	Pass	
Arsenic (filtered)	%	115			70 - 130	Pass	
Boron (filtered)	%	92			70 - 130	Pass	
Cadmium (filtered)	%	101			70 - 130	Pass	
Chromium (filtered)	%	101			70 - 130	Pass	
Cobalt (filtered)	%	92			70 - 130	Pass	
Copper (filtered)	%	101			70 - 130	Pass	
Lead (filtered)	%	98			70 - 130	Pass	
Manganese (filtered)	%	64			70 - 130	Fail	Q08
Mercury (filtered)	%	93			70 - 130	Pass	
Molybdenum (filtered)	%	99			70 - 130	Pass	
Nickel (filtered)	%	90			70 - 130	Pass	
Selenium (filtered)	%	112			70 - 130	Pass	
Vanadium (filtered)	%	103			70 - 130	Pass	
Zinc (filtered)	%	96			70 - 130	Pass	

Comments

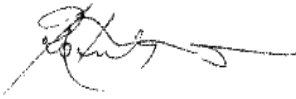
Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in AS-POL-002. Refer to Glossary Page of this report for further details

Authorised By



Dr. Bob Symons

NATA Signatory

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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ABN 39 008 488 373

Project No: 2120474
Project Name: Pacific Brands wentworthville
Project Manager: Adam Tilling (GHD Melbourne)
Contact Name: George Iliopoulos / Terry Nham
Phone No: 9239 7100
Fax No: 02 9239 7195
Email: adam.tilling@ghd.com.au

Sent to Lab: MGT - Labmark
Address: Unit F3, Parkview Building
LANE COVE NSW 2066
Date Required: Standard 5 day TAR
Date Submitted: 08-April-2011
Attention: Sample Receipt
Phone: 8215 6222
Page: 1 of 1
Fax: 9420 2977

Table with columns: SAMPLE No., Date Sampled, No. of Containers, Container Type/Size, MATRIX (Water, Soil), PRESERVATION (Chill, Acid, Other), ANALYSIS REQUIRED (1-10), COMMENTS. Includes handwritten sample IDs like AP30478, AP30479, etc.

295938

Signature and receipt table with columns: RELINQUISHED BY (Name, Organisation, Date, Time, Signed) and RECEIVED BY (Name, Organisation, Date, Time, Signed). Includes signature of George Iliopoulos and Dan MAT.

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

PLEASE FAXED COMPLETED FORM TO GHD PROJECT MANAGER ON RECEIPT (02) 9462 4710

Ellen Scott-Aitken

From: Adam.Tilling@ghd.com
Sent: Monday, 11 April 2011 3:46 PM
To: Ellen Scott-Aitken
Subject: Re: mgt-Labmark Sample Receipt Advice - Report 295938 : Site PACIFIC BRANDS WENTWORTHVILLE 2120474

Thanks Ellen

Can you please add analysis of Ammonia to samples GW1, GW2 and BH4 for *mgt no.* 295938

~~Could you also add analysis of Ammonia to sample GW8 for *mgt no.* 295853.~~

Thanks

Adam

YMTs 11/04/11 295938.

Adam Tilling
Project Manager / Senior Hydrogeologist

GHD Accomplish More Together

T: 03 8687 8471 | M: 0448 005 299 | V: 318471 | T: 03 8687 8111 | adam.tilling@ghd.com
 Level 8, 180 Lonsdale St, Melbourne, Vic 3000, Australia | <http://www.ghd.com/>

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Please consider the environment before printing this email

From: <ellen.scottaitken@labmark.com.au>
To: <adam.tilling@ghd.com.au>
Cc: <George.Iliopoulos@ghd.com>
Date: 11/04/2011 03:02 PM
Subject: mgt-Labmark Sample Receipt Advice - Report 295938 : Site PACIFIC BRANDS WENTWORTHVILLE 2120474

Dear Valued Client,
 Please find attached a Sample Receipt Advice (SRA), a Summary Sheet and a scanned copy of your Chain-of-Custody (COC). It is important that you check this documentation to ensure that the details are correct such as the Client Job Number, Turn Around Time, any comments in the Notes section and sample numbers as well as the requested analysis. If there are any irregularities then please contact your mgt-LabMark Client Services Manager as soon as possible to make certain that they get changed.
 Please send all reply correspondence to enviro.sydney@labmark.com.au

This e-mail has been scanned for viruses by MessageLabs. [attachment "295938_COC.pdf" deleted by Adam Tilling/Melbourne/GHD/AU] [attachment "295938_sample_receipt_coc.pdf" deleted by Adam Tilling/Melbourne/GHD/AU]

11/04/2011

GHD Pty Ltd NSW
Level 15, 133 Castlereagh Street
Sydney
New South Wales 2000

Certificate of Analysis



NATA Accredited
Accreditation Number 1261
Site Number 18217

This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: Adam Tilling

Report 295938-W
Client Reference PACIFIC BRANDS WENTWORTHVILLE 2120474
Received Date Apr 08, 2011

Client Sample ID			GW1 Water S11-Ap30478 Apr 07, 2011	GW2 Water S11-Ap30479 Apr 07, 2011	GW4 Water S11-Ap30480 Apr 07, 2011	GW6 Water S11-Ap30481 Apr 07, 2011
Sample Matrix	LOR	Unit				
mgt-LabMark Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons						
TRH C6-C9 Fraction by GC	0.02	mg/L	0.03	< 0.02	< 0.02	< 0.02
Volatile Halogenated Compounds (VHC)						
Chlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloroethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Chloromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
cis-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dibromochloromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Methylene Chloride	0.02	mg/L	< 0.02	< 0.02	< 0.02	< 0.02
Tetrachloroethene	0.005	mg/L	0.020	< 0.005	< 0.005	< 0.005
trans-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
trans-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Trichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Toluene-d8 (surr.)	1	%	104	103	101	101
Pentafluorobenzene (surr.)	1	%	100	100	100	103
Volatile Organic Compounds (VOC)						
1.1-Dichloroethene	0.005	mg/L	-	-	< 0.005	< 0.005
1.1.1-Trichloroethane	0.005	mg/L	-	-	< 0.005	< 0.005
1.1.1.2-Tetrachloroethane	0.005	mg/L	-	-	< 0.005	< 0.005
1.1.2-Trichloroethane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2-Dibromo-3-chloropropane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2-Dibromoethane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2-Dichlorobenzene	0.005	mg/L	-	-	< 0.005	< 0.005
1.2-Dichloroethane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2-Dichloropropane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2.3-Trichloropropane	0.005	mg/L	-	-	< 0.005	< 0.005
1.2.4-Trichlorobenzene	0.005	mg/L	-	-	< 0.005	< 0.005
1.2.4-Trimethylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
1.3-Dichlorobenzene	0.005	mg/L	-	-	< 0.005	< 0.005
1.3-Dichloropropane	0.005	mg/L	-	-	< 0.005	< 0.005
1.3.5-Trimethylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
1.4-Dichlorobenzene	0.005	mg/L	-	-	< 0.005	< 0.005
2-Butanone (MEK)	0.005	mg/L	-	-	< 0.005	< 0.005

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled			GW1 Water S11-Ap30478 Apr 07, 2011	GW2 Water S11-Ap30479 Apr 07, 2011	GW4 Water S11-Ap30480 Apr 07, 2011	GW6 Water S11-Ap30481 Apr 07, 2011
Test/Reference	LOR	Unit				
2-Chlorotoluene	0.005	mg/L	-	-	< 0.005	< 0.005
2-Hexanone	0.005	mg/L	-	-	< 0.005	< 0.005
2-Pentanone	0.005		-	-	< 0.005	< 0.005
2,2-Dichloropropane	0.005	mg/L	-	-	< 0.005	< 0.005
4-Chlorotoluene	0.005	mg/L	-	-	< 0.005	< 0.005
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	-	-	< 0.005	< 0.005
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Bromobenzene	0.005	mg/L	-	-	< 0.005	< 0.005
Bromodichloromethane	0.005	mg/L	-	-	< 0.005	< 0.005
Bromoform	0.005	mg/L	-	-	< 0.005	< 0.005
Bromomethane	0.05	mg/L	-	-	< 0.05	< 0.05
Carbon Tetrachloride	0.005	mg/L	-	-	< 0.005	< 0.005
Ethyl Acetate	0.005		-	-	< 0.005	< 0.005
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.005	mg/L	< 0.001	< 0.001	< 0.005	< 0.005
n-Butylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
n-Propylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
Naphthalene	0.005	mg/L	-	-	< 0.005	< 0.005
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
p-Isopropyltoluene	0.005	mg/L	-	-	< 0.005	< 0.005
sec-Butylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
Styrene	0.005	mg/L	< 0.001	< 0.001	< 0.005	< 0.005
tert-Butylbenzene	0.005	mg/L	-	-	< 0.005	< 0.005
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl acetate	0.005	mg/L	-	-	< 0.005	< 0.005
4-Bromofluorobenzene (surr.)	1	%	-	-	106	107
BTEX						
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003	< 0.003	< 0.003	< 0.003
Total BTEX	0.01	mg/L	-	-	< 0.01	< 0.01
Total Recoverable Hydrocarbons						
TRH C10-C14 Fraction by GC	0.05	mg/L	0.05	< 0.05	< 0.05	< 0.05
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1	< 0.1
TRH C29-C36 Fraction by GC	0.1	mg/L	0.1	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.2	mg/L	0.2	< 0.1	< 0.1	< 0.1
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1232	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1242	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1248	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1254	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1260	0.005	mg/L	< 0.005	< 0.005	-	-
Total PCB	0.001	mg/L	< 0.02	< 0.02	-	-
Dibutylchloroendate (surr.)	1	%	113	109	-	-
Speciated Phenols						
Phenol	0.002	mg/L	< 0.002	< 0.002	-	-
2-Methylphenol (o-Cresol)	0.002	mg/L	< 0.002	< 0.002	-	-
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	< 0.004	< 0.004	-	-
2-Chlorophenol	0.002	mg/L	< 0.002	< 0.002	-	-
2-Nitrophenol	0.002	mg/L	< 0.002	< 0.002	-	-

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled	LOR	Unit	GW1 Water S11-Ap30478 Apr 07, 2011	GW2 Water S11-Ap30479 Apr 07, 2011	GW4 Water S11-Ap30480 Apr 07, 2011	GW6 Water S11-Ap30481 Apr 07, 2011
Test/Reference						
4-Chloro-3-methylphenol	0.002	mg/L	< 0.002	< 0.002	-	-
Pentachlorophenol	0.01	mg/L	< 0.01	< 0.01	-	-
2,4,6-Tribromophenol (surr.)	1	%	92	88	-	-
Phenol-d5 (surr.)	1	%	100	97	-	-
Organochlorine Pesticides (OC)						
4,4'-DDD	0.0005	mg/L	< 0.0005	< 0.0005	-	-
4,4'-DDE	0.0005	mg/L	< 0.0005	< 0.0005	-	-
4,4'-DDT	0.002	mg/L	< 0.002	< 0.002	-	-
a-BHC	0.0005	mg/L	< 0.0005	< 0.0005	-	-
a-Chlordane	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Aldrin	0.0005	mg/L	< 0.0005	< 0.0005	-	-
b-BHC	0.0005	mg/L	< 0.0005	< 0.0005	-	-
d-BHC	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Dieldrin	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endosulfan I	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endosulfan II	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endosulfan sulphate	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endrin	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endrin aldehyde	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Endrin ketone	0.0005	mg/L	< 0.0005	< 0.0005	-	-
g-BHC (Lindane)	0.0005	mg/L	< 0.0005	< 0.0005	-	-
g-Chlordane	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Heptachlor	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Heptachlor epoxide	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Hexachlorobenzene	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Methoxychlor	0.002	mg/L	< 0.002	< 0.002	-	-
Tetrachloro-m-xylene (surr.)	1	%	109	111	-	-
Polyaromatic Hydrocarbons (PAH)						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	< 0.002	< 0.002	-	-
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	< 0.001	-	-
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	< 0.001	-	-
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Total PAH	0.002	mg/L	< 0.002	< 0.002	-	-
2-Fluorobiphenyl (surr.)	1	%	80	72	-	-
p-Terphenyl-d14 (surr.)	1	%	77	73	-	-
Ammonia(N)	0.01	mg/L	0.21	0.35	0.17	2.6
Cyanide (total)	0.005	mg/L	< 0.005	0.008	-	-

Client Sample ID			GW1	GW2	GW4	GW6
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30478	S11-Ap30479	S11-Ap30480	S11-Ap30481
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Test/Reference	LOR	Unit				
pH	0.1	units	5.8	6.0	-	-
Sulphate (S)	2	mg/L	290	52	-	-
Total Dissolved Solids	5	mg/L	-	-	8100	12000
Heavy Metals						
Antimony (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Arsenic (filtered)	0.001	mg/L	0.007	0.005	0.034	0.020
Beryllium (filtered)	0.001	mg/L	0.002	< 0.001	< 0.001	< 0.001
Boron (filtered)	0.01	mg/L	0.03	0.12	-	-
Cadmium (filtered)	0.0001	mg/L	0.0021	< 0.0001	0.0001	0.0002
Chromium (filtered)	0.001	mg/L	0.012	0.008	0.018	0.026
Cobalt (filtered)	0.001	mg/L	0.17	0.024	0.012	0.034
Copper (filtered)	0.001	mg/L	0.015	0.005	0.012	0.021
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.001	mg/L	6.6	0.81	-	-
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Molybdenum (filtered)	0.001	mg/L	< 0.001	< 0.001	0.004	0.009
Nickel (filtered)	0.001	mg/L	0.19	0.054	0.071	0.094
Selenium (filtered)	0.005	mg/L	0.009	0.006	< 0.005	< 0.005
Tin (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005	< 0.005
Vanadium (filtered)	0.005	mg/L	0.034	< 0.005	-	-
Zinc (filtered)	0.005	mg/L	0.41	0.053	0.034	0.049

Client Sample ID			GW9	BH4	RB2
Sample Matrix			Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30482	S11-Ap30483	S11-Ap30485
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Test/Reference	LOR	Unit			
Total Recoverable Hydrocarbons					
TRH C6-C9 Fraction by GC	0.02	mg/L	< 0.02	< 0.02	< 0.02
Volatile Halogenated Compounds (VHC)					
Chlorobenzene	0.005	mg/L	< 0.005	< 0.005	< 0.005
Chloroethane	0.05	mg/L	< 0.05	< 0.05	< 0.05
Chloroform	0.005	mg/L	< 0.005	< 0.005	< 0.005
Chloromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005
cis-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005
Dibromochloromethane	0.005	mg/L	< 0.005	< 0.005	< 0.005
Dichlorodifluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05
Hexachlorobutadiene	0.005	mg/L	< 0.005	< 0.005	< 0.005
Methylene Chloride	0.02	mg/L	< 0.02	< 0.02	< 0.02
Tetrachloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005
trans-1.2-Dichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005
trans-1.3-Dichloropropene	0.005	mg/L	< 0.005	< 0.005	< 0.005
Trichloroethene	0.005	mg/L	< 0.005	< 0.005	< 0.005
Trichlorofluoromethane	0.05	mg/L	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/L	< 0.05	< 0.05	< 0.05
Toluene-d8 (surr.)	1	%	101	102	101
Pentafluorobenzene (surr.)	1	%	103	101	101
Volatile Organic Compounds (VOC)					
1.1-Dichloroethene	0.005	mg/L	< 0.005	-	-
1.1.1-Trichloroethane	0.005	mg/L	< 0.005	-	-
1.1.1.2-Tetrachloroethane	0.005	mg/L	< 0.005	-	-
1.1.2-Trichloroethane	0.005	mg/L	< 0.005	-	-
1.2-Dibromo-3-chloropropane	0.005	mg/L	< 0.005	-	-
1.2-Dibromoethane	0.005	mg/L	< 0.005	-	-
1.2-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
1.2-Dichloroethane	0.005	mg/L	< 0.005	-	-
1.2-Dichloropropane	0.005	mg/L	< 0.005	-	-
1.2.3-Trichloropropane	0.005	mg/L	< 0.005	-	-
1.2.4-Trichlorobenzene	0.005	mg/L	< 0.005	-	-
1.2.4-Trimethylbenzene	0.005	mg/L	< 0.005	-	-
1.3-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
1.3-Dichloropropane	0.005	mg/L	< 0.005	-	-
1.3.5-Trimethylbenzene	0.005	mg/L	< 0.005	-	-
1.4-Dichlorobenzene	0.005	mg/L	< 0.005	-	-
2-Butanone (MEK)	0.005	mg/L	< 0.005	-	-
2-Chlorotoluene	0.005	mg/L	< 0.005	-	-
2-Hexanone	0.005	mg/L	< 0.005	-	-
2-Pentanone	0.005		< 0.005	-	-
2.2-Dichloropropane	0.005	mg/L	< 0.005	-	-
4-Chlorotoluene	0.005	mg/L	< 0.005	-	-
4-Methyl-2-pentanone (MIBK)	0.005	mg/L	< 0.005	-	-
Benzene	0.001	mg/L	< 0.001	< 0.001	< 0.001
Bromobenzene	0.005	mg/L	< 0.005	-	-
Bromodichloromethane	0.005	mg/L	< 0.005	-	-
Bromoform	0.005	mg/L	< 0.005	-	-
Bromomethane	0.05	mg/L	< 0.05	-	-
Carbon Tetrachloride	0.005	mg/L	< 0.005	-	-

Client Sample ID			GW9	BH4	RB2
Sample Matrix			Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30482	S11-Ap30483	S11-Ap30485
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Test/Reference	LOR	Unit			
Ethyl Acetate	0.005		< 0.005	-	-
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	< 0.001
Isopropyl benzene (Cumene)	0.001	mg/L	< 0.005	< 0.001	< 0.001
n-Butylbenzene	0.005	mg/L	< 0.005	-	-
n-Propylbenzene	0.005	mg/L	< 0.005	-	-
Naphthalene	0.005	mg/L	< 0.005	-	-
o-Xylene	0.001	mg/L	< 0.001	< 0.001	< 0.001
p-Isopropyltoluene	0.005	mg/L	< 0.005	-	-
sec-Butylbenzene	0.005	mg/L	< 0.005	-	-
Styrene	0.001	mg/L	< 0.005	< 0.001	< 0.001
tert-Butylbenzene	0.005	mg/L	< 0.005	-	-
Toluene	0.001	mg/L	< 0.001	< 0.001	< 0.001
Total m+p-Xylenes	0.002	mg/L	< 0.002	< 0.002	< 0.002
Vinyl acetate	0.005	mg/L	< 0.005	-	-
4-Bromofluorobenzene (surr.)	1	%	107	-	-
BTEX					
Xylenes(ortho.meta and para)	0.003	mg/L	< 0.003	< 0.003	< 0.003
Total BTEX	0.01	mg/L	< 0.01	-	-
Total Recoverable Hydrocarbons					
TRH C10-C14 Fraction by GC	0.05	mg/L	< 0.05	< 0.05	< 0.05
TRH C15-C28 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1
TRH C29-C36 Fraction by GC	0.1	mg/L	< 0.1	< 0.1	< 0.1
TRH C10-36 (Total)	0.2	mg/L	< 0.1	< 0.1	< 0.1
Polychlorinated Biphenyls (PCB)					
Aroclor-1016	0.005	mg/L	-	< 0.005	< 0.005
Aroclor-1232	0.005	mg/L	-	< 0.005	< 0.005
Aroclor-1242	0.005	mg/L	-	< 0.005	< 0.005
Aroclor-1248	0.005	mg/L	-	< 0.005	< 0.005
Aroclor-1254	0.005	mg/L	-	< 0.005	< 0.005
Aroclor-1260	0.005	mg/L	-	< 0.005	< 0.005
Total PCB	0.001	mg/L	-	< 0.02	< 0.02
Dibutylchloroendate (surr.)	1	%	-	91	85
Speciated Phenols					
Phenol	0.002	mg/L	-	< 0.002	< 0.002
2-Methylphenol (o-Cresol)	0.002	mg/L	-	< 0.002	< 0.002
3&4-Methylphenol (m&p-Cresol)	0.004	mg/L	-	< 0.004	< 0.004
2-Chlorophenol	0.002	mg/L	-	< 0.002	< 0.002
2-Nitrophenol	0.002	mg/L	-	< 0.002	< 0.002
4-Chloro-3-methylphenol	0.002	mg/L	-	< 0.002	< 0.002
Pentachlorophenol	0.01	mg/L	-	< 0.01	< 0.01
2,4,6-Tribromophenol (surr.)	1	%	-	73	82
Phenol-d5 (surr.)	1	%	-	99	101
Organochlorine Pesticides (OC)					
4,4'-DDD	0.0005	mg/L	-	< 0.0005	< 0.0005
4,4'-DDE	0.0005	mg/L	-	< 0.0005	< 0.0005
4,4'-DDT	0.002	mg/L	-	< 0.002	< 0.002
a-BHC	0.0005	mg/L	-	< 0.0005	< 0.0005
a-Chlordane	0.0005	mg/L	-	< 0.0005	< 0.0005
Aldrin	0.0005	mg/L	-	< 0.0005	< 0.0005
b-BHC	0.0005	mg/L	-	< 0.0005	< 0.0005
d-BHC	0.0005	mg/L	-	< 0.0005	< 0.0005

Client Sample ID			GW9	BH4	RB2
Sample Matrix			Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30482	S11-Ap30483	S11-Ap30485
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Test/Reference	LOR	Unit			
Dieldrin	0.0005	mg/L	-	< 0.0005	< 0.0005
Endosulfan I	0.0005	mg/L	-	< 0.0005	< 0.0005
Endosulfan II	0.0005	mg/L	-	< 0.0005	< 0.0005
Endosulfan sulphate	0.0005	mg/L	-	< 0.0005	< 0.0005
Endrin	0.0005	mg/L	-	< 0.0005	< 0.0005
Endrin aldehyde	0.0005	mg/L	-	< 0.0005	< 0.0005
Endrin ketone	0.0005	mg/L	-	< 0.0005	< 0.0005
g-BHC (Lindane)	0.0005	mg/L	-	< 0.0005	< 0.0005
g-Chlordane	0.0005	mg/L	-	< 0.0005	< 0.0005
Heptachlor	0.0005	mg/L	-	< 0.0005	< 0.0005
Heptachlor epoxide	0.0005	mg/L	-	< 0.0005	< 0.0005
Hexachlorobenzene	0.0005	mg/L	-	< 0.0005	< 0.0005
Methoxychlor	0.002	mg/L	-	< 0.002	< 0.002
Tetrachloro-m-xylene (surr.)	1	%	-	107	81
Polyaromatic Hydrocarbons (PAH)					
Acenaphthene	0.001	mg/L	-	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	-	< 0.001	< 0.001
Anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	-	< 0.001	< 0.001
Benzo(b)fluoranthene & Benzo(k)fluoranthene	0.002	mg/L	-	< 0.002	< 0.002
Benzo(g,h,i)perylene	0.001	mg/L	-	< 0.001	< 0.001
Chrysene	0.001	mg/L	-	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	-	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	-	< 0.001	< 0.001
Fluorene	0.001	mg/L	-	< 0.001	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	-	< 0.001	< 0.001
Naphthalene	0.001	mg/L	-	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	-	< 0.001	< 0.001
Pyrene	0.001	mg/L	-	< 0.001	< 0.001
Total PAH	0.002	mg/L	-	< 0.002	< 0.002
2-Fluorobiphenyl (surr.)	1	%	-	79	83
p-Terphenyl-d14 (surr.)	1	%	-	74	77
Ammonia(N)	0.01	mg/L	0.04	< 0.01	-
Cyanide (total)	0.005	mg/L	-	< 0.005	< 0.005
pH	0.1	units	-	5.5	6.6
Sulphate (S)	2	mg/L	-	5.8	< 2
Total Dissolved Solids	5	mg/L	5100	-	-
Heavy Metals					
Antimony (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005
Arsenic (filtered)	0.001	mg/L	0.010	< 0.001	< 0.001
Beryllium (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001
Boron (filtered)	0.01	mg/L	-	0.06	< 0.01
Cadmium (filtered)	0.0001	mg/L	0.0001	0.0002	< 0.0001
Chromium (filtered)	0.001	mg/L	0.041	0.008	0.002
Cobalt (filtered)	0.001	mg/L	0.022	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	0.021	0.017	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001	< 0.001
Manganese (filtered)	0.001	mg/L	-	0.092	< 0.001

Client Sample ID			GW9	BH4	RB2
Sample Matrix			Water	Water	Water
mgt-LabMark Sample No.			S11-Ap30482	S11-Ap30483	S11-Ap30485
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Test/Reference	LOR	Unit			
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001	< 0.0001
Molybdenum (filtered)	0.001	mg/L	0.001	< 0.001	< 0.001
Nickel (filtered)	0.001	mg/L	0.11	0.033	< 0.001
Selenium (filtered)	0.005	mg/L	0.038	0.008	0.013
Tin (filtered)	0.005	mg/L	< 0.005	< 0.005	< 0.005
Vanadium (filtered)	0.005	mg/L	-	< 0.005	< 0.005
Zinc (filtered)	0.005	mg/L	0.15	0.20	0.009

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Apr 08, 2011	14 Day
Volatile Halogenated Compounds (VHC) - Method: E016 Volatile Halogenated Compounds (VHC)	Sydney	Apr 11, 2011	14 Day
Volatile Organic Compounds (VOC) - Method: E016 Volatile Organic Compounds (VOC)	Sydney	Apr 11, 2011	14 Day
BTEX - Method: E029/E016 BTEX	Melbourne	Apr 08, 2011	14 Day
Total Recoverable Hydrocarbons - Method: E004 Petroleum Hydrocarbons (TPH)	Sydney	Apr 11, 2011	7 Day
Polychlorinated Biphenyls (PCB) - Method: E013 Polychlorinated Biphenyls (PCB)	Sydney	Apr 11, 2011	7 Day
Speciated Phenols - Method: E008 Speciated Phenols	Sydney	Apr 11, 2011	7 Day
Organochlorine Pesticides (OC) - Method: E013 Organochlorine Pesticides (OC)	Sydney	Apr 11, 2011	7 Day
Polyaromatic Hydrocarbons (PAH) - Method: E007 Polyaromatic Hydrocarbons (PAH)	Sydney	Apr 11, 2011	7 Day
Ammonia(N) - Method: E036/E050 Ammonia as N	Sydney	Apr 12, 2011	28 Day
Cyanide (total) - Method: E040 /E054 Total Cyanide	Sydney	Apr 11, 2011	14 Day
pH - Method: E018 pH	Sydney	Apr 08, 2011	1 Day
Sulphate (S) - Method: E045 Sulphate	Sydney	Apr 11, 2011	28 Day
Total Dissolved Solids - Method: 4110 Total Dissolved Solids	Sydney	Apr 11, 2011	7 Day
Antimony (filtered)	Sydney	Apr 14, 2011	180 Day

mgt-LabMark Internal Quality Control Review

General

- Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
- All soil results are reported on a dry basis, unless otherwise stated.
- Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
- Results are uncorrected for matrix spikes or surrogate recoveries.
- SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
- Samples were analysed on an 'as received' basis.
- This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

UNITS

mg/kg: milligrams per Kilogram	mg/L: milligrams per litre
µg/l: micrograms per litre	ppm: Parts per million
ppb: Parts per billion	%: Percentage
org/100ml: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-20%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

- Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
- Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
- Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
- Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
- Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
- pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
- Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
- Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
- For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
- Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Method Blank						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon						
TRH C6-C9 Fraction by GC	mg/L	< 0.02		0.02	Pass	
Method Blank						
Volatile Halogenated Compounds (VHC) E016 Volatile Halogen						
Chlorobenzene	mg/L	< 0.005		0.005	Pass	
Chloroethane	mg/L	< 0.05		0.05	Pass	
Chloroform	mg/L	< 0.005		0.005	Pass	
Chloromethane	mg/L	< 0.05		0.05	Pass	
cis-1.2-Dichloroethene	mg/L	< 0.005		0.005	Pass	
cis-1.3-Dichloropropene	mg/L	< 0.005		0.005	Pass	
Dibromochloromethane	mg/L	< 0.005		0.005	Pass	
Dichlorodifluoromethane	mg/L	< 0.05		0.05	Pass	
Hexachlorobutadiene	mg/L	< 0.005		0.005	Pass	
Methylene Chloride	mg/L	< 0.02		0.02	Pass	
Tetrachloroethene	mg/L	< 0.005		0.005	Pass	
trans-1.2-Dichloroethene	mg/L	< 0.005		0.005	Pass	
trans-1.3-Dichloropropene	mg/L	< 0.005		0.005	Pass	
Trichloroethene	mg/L	< 0.005		0.005	Pass	
Trichlorofluoromethane	mg/L	< 0.05		0.05	Pass	
Vinyl chloride	mg/L	< 0.05		0.05	Pass	
Method Blank						
Volatile Organic Compounds (VOC) E016 Volatile Organic Comp						
1.1-Dichloroethene	mg/L	< 0.005		0.005	Pass	
1.1.1-Trichloroethane	mg/L	< 0.005		0.005	Pass	
1.1.1.2-Tetrachloroethane	mg/L	< 0.005		0.005	Pass	
1.1.2-Trichloroethane	mg/L	< 0.005		0.005	Pass	
1.2-Dibromo-3-chloropropane	mg/L	< 0.005		0.005	Pass	
1.2-Dibromoethane	mg/L	< 0.005		0.005	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.2-Dichloroethane	mg/L	< 0.005		0.005	Pass	
1.2-Dichloropropane	mg/L	< 0.005		0.005	Pass	
1.2.3-Trichloropropane	mg/L	< 0.005		0.005	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.005		0.005	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
1.3-Dichloropropane	mg/L	< 0.005		0.005	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.005		0.005	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005		0.005	Pass	
2-Butanone (MEK)	mg/L	< 0.005		0.005	Pass	
2-Chlorotoluene	mg/L	< 0.005		0.005	Pass	
2-Hexanone	mg/L	< 0.005		0.005	Pass	
2-Pentanone	mg/L	< 0.005		0.005	Pass	
2.2-Dichloropropane	mg/L	< 0.005		0.005	Pass	
4-Chlorotoluene	mg/L	< 0.005		0.005	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005		0.005	Pass	
Benzene	mg/L	< 0.001		0.001	Pass	
Bromobenzene	mg/L	< 0.005		0.005	Pass	
Bromodichloromethane	mg/L	< 0.005		0.005	Pass	
Bromoform	mg/L	< 0.005		0.005	Pass	
Bromomethane	mg/L	< 0.05		0.05	Pass	
Carbon Tetrachloride	mg/L	< 0.005		0.005	Pass	
Ethyl Acetate	mg/L	< 0.005		0.005	Pass	
Ethylbenzene	mg/L	< 0.001		0.001	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.005		0.005	Pass	
n-Butylbenzene	mg/L	< 0.005		0.005	Pass	
n-Propylbenzene	mg/L	< 0.005		0.005	Pass	
Naphthalene	mg/L	< 0.005		0.005	Pass	
o-Xylene	mg/L	< 0.001		0.001	Pass	
p-Isopropyltoluene	mg/L	< 0.005		0.005	Pass	
sec-Butylbenzene	mg/L	< 0.005		0.005	Pass	
Styrene	mg/L	< 0.005		0.005	Pass	
tert-Butylbenzene	mg/L	< 0.005		0.005	Pass	
Toluene	mg/L	< 0.001		0.001	Pass	

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Total m+p-Xylenes	mg/L	< 0.002		0.002	Pass	
Vinyl acetate	mg/L	< 0.005		0.005	Pass	
Method Blank						
BTEX E029/E016 BTEX						
Xylenes(ortho.meta and para)	mg/L	< 0.003		0.003	Pass	
Total BTEX	mg/L	< 0.01		0.01	Pass	
Method Blank						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbons						
TRH C10-C14 Fraction by GC	mg/L	< 0.05		0.05	Pass	
TRH C15-C28 Fraction by GC	mg/L	< 0.1		0.1	Pass	
TRH C29-C36 Fraction by GC	mg/L	< 0.1		0.1	Pass	
Method Blank						
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphenyls						
Aroclor-1016	mg/L	< 0.005		0.005	Pass	
Aroclor-1232	mg/L	< 0.005		0.005	Pass	
Aroclor-1242	mg/L	< 0.005		0.005	Pass	
Aroclor-1248	mg/L	< 0.005		0.005	Pass	
Aroclor-1254	mg/L	< 0.005		0.005	Pass	
Aroclor-1260	mg/L	< 0.005		0.005	Pass	
Method Blank						
Speciated Phenols E008 Speciated Phenols						
Phenol	mg/L	< 0.002		0.002	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.002		0.002	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.004		0.004	Pass	
2-Chlorophenol	mg/L	< 0.002		0.002	Pass	
2-Nitrophenol	mg/L	< 0.002		0.002	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.002		0.002	Pass	
Pentachlorophenol	mg/L	< 0.01		0.01	Pass	
Method Blank						
Organochlorine Pesticides (OC) E013 Organochlorine Pesticides						
4,4'-DDD	mg/L	< 0.0005		0.0005	Pass	
4,4'-DDE	mg/L	< 0.0005		0.0005	Pass	
4,4'-DDT	mg/L	< 0.002		0.002	Pass	
a-BHC	mg/L	< 0.0005		0.0005	Pass	
a-Chlordane	mg/L	< 0.0005		0.0005	Pass	
Aldrin	mg/L	< 0.0005		0.0005	Pass	
b-BHC	mg/L	< 0.0005		0.0005	Pass	
d-BHC	mg/L	< 0.0005		0.0005	Pass	
Dieldrin	mg/L	< 0.0005		0.0005	Pass	
Endosulfan I	mg/L	< 0.0005		0.0005	Pass	
Endosulfan II	mg/L	< 0.0005		0.0005	Pass	
Endosulfan sulphate	mg/L	< 0.0005		0.0005	Pass	
Endrin	mg/L	< 0.0005		0.0005	Pass	
Endrin aldehyde	mg/L	< 0.0005		0.0005	Pass	
Endrin ketone	mg/L	< 0.0005		0.0005	Pass	
g-BHC (Lindane)	mg/L	< 0.0005		0.0005	Pass	
g-Chlordane	mg/L	< 0.0005		0.0005	Pass	
Heptachlor	mg/L	< 0.0005		0.0005	Pass	
Heptachlor epoxide	mg/L	< 0.0005		0.0005	Pass	
Hexachlorobenzene	mg/L	< 0.0005		0.0005	Pass	
Methoxychlor	mg/L	< 0.002		0.002	Pass	
Method Blank						
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons						
Acenaphthene	mg/L	< 0.001		0.001	Pass	
Acenaphthylene	mg/L	< 0.001		0.001	Pass	
Anthracene	mg/L	< 0.001		0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001		0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001		0.001	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/L	< 0.002		0.002	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001		0.001	Pass	
Chrysene	mg/L	< 0.001		0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001		0.001	Pass	
Fluoranthene	mg/L	< 0.001		0.001	Pass	
Fluorene	mg/L	< 0.001		0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001		0.001	Pass	
Naphthalene	mg/L	< 0.001		0.001	Pass	

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
Phenanthrene	mg/L	< 0.001		0.001	Pass	
Pyrene	mg/L	< 0.001		0.001	Pass	
Method Blank						
Ammonia(N)	mg/L	< 0.01		0.01	Pass	
Cyanide (total)	mg/L	< 0.005		0.005	Pass	
Sulphate (S)	mg/L	< 2		2	Pass	
Total Dissolved Solids	mg/L	< 5		5	Pass	
Method Blank						
Antimony (filtered)	mg/L	< 0.005		0.005	Pass	
Arsenic (filtered)	mg/L	< 0.001		0.001	Pass	
Boron (filtered)	mg/L	< 0.01		0.01	Pass	
Cadmium (filtered)	mg/L	< 0.0001		0.0001	Pass	
Chromium (filtered)	mg/L	< 0.001		0.001	Pass	
Cobalt (filtered)	mg/L	< 0.001		0.001	Pass	
Copper (filtered)	mg/L	< 0.001		0.001	Pass	
Lead (filtered)	mg/L	< 0.001		0.001	Pass	
Manganese (filtered)	mg/L	< 0.001		0.001	Pass	
Mercury (filtered)	mg/L	< 0.0001		0.0001	Pass	
Molybdenum (filtered)	mg/L	< 0.001		0.001	Pass	
Nickel (filtered)	mg/L	< 0.001		0.001	Pass	
Tin (filtered)	mg/L	< 0.005		0.005	Pass	
Vanadium (filtered)	mg/L	< 0.005		0.005	Pass	
Zinc (filtered)	mg/L	< 0.005		0.005	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon	Result 1					
TRH C6-C9 Fraction by GC	%	92		70-130	Pass	
LCS - % Recovery						
Volatile Halogenated Compounds (VHC) E016 Volatile Halogen	Result 1					
Chlorobenzene	%	98		70-130	Pass	
Chloroethane	%	100		70-130	Pass	
Chloroform	%	100		70-130	Pass	
Chloromethane	%	87		70-130	Pass	
cis-1.2-Dichloroethene	%	100		70-130	Pass	
cis-1.3-Dichloropropene	%	106		70-130	Pass	
Dibromochloromethane	%	107		70-130	Pass	
Dichlorodifluoromethane	%	100		70-130	Pass	
Hexachlorobutadiene	%	96		70-130	Pass	
Methylene Chloride	%	101		70-130	Pass	
Tetrachloroethene	%	103		70-130	Pass	
trans-1.2-Dichloroethene	%	101		70-130	Pass	
trans-1.3-Dichloropropene	%	106		70-130	Pass	
Trichloroethene	%	101		70-130	Pass	
Trichlorofluoromethane	%	101		70-130	Pass	
Vinyl chloride	%	93		70-130	Pass	
LCS - % Recovery						
Volatile Organic Compounds (VOC) E016 Volatile Organic Com	Result 1					
1.1-Dichloroethene	%	101		70-130	Pass	
1.1.1-Trichloroethane	%	100		70-130	Pass	
1.1.1.2-Tetrachloroethane	%	97		70-130	Pass	
1.1.2-Trichloroethane	%	107		70-130	Pass	
1.2-Dibromo-3-chloropropane	%	101		70-130	Pass	
1.2-Dibromoethane	%	110		70-130	Pass	
1.2-Dichlorobenzene	%	98		70-130	Pass	
1.2-Dichloroethane	%	102		70-130	Pass	
1.2-Dichloropropane	%	103		70-130	Pass	
1.2.3-Trichloropropane	%	104		70-130	Pass	
1.2.4-Trichlorobenzene	%	97		70-130	Pass	
1.2.4-Trimethylbenzene	%	97		70-130	Pass	
1.3-Dichlorobenzene	%	97		70-130	Pass	
1.3-Dichloropropane	%	107		70-130	Pass	
1.3.5-Trimethylbenzene	%	98		70-130	Pass	
1.4-Dichlorobenzene	%	97		70-130	Pass	
2-Butanone (MEK)	%	110		70-130	Pass	
2-Chlorotoluene	%	95		70-130	Pass	

Sample, Test, Result Reference	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Codes
2-Hexanone	%	115		70-130	Pass	
2-Pentanone	%	111		70-130	Pass	
4-Chlorotoluene	%	97		70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	113		70-130	Pass	
Benzene	%	102		70-130	Pass	
Bromobenzene	%	98		70-130	Pass	
Bromodichloromethane	%	104		70-130	Pass	
Bromoform	%	103		70-130	Pass	
Bromomethane	%	109		70-130	Pass	
Carbon Tetrachloride	%	102		70-130	Pass	
Ethylbenzene	%	98		70-130	Pass	
Isopropyl benzene (Cumene)	%	98		70-130	Pass	
n-Butylbenzene	%	98		70-130	Pass	
n-Propylbenzene	%	96		70-130	Pass	
Naphthalene	%	92		70-130	Pass	
o-Xylene	%	97		70-130	Pass	
p-Isopropyltoluene	%	97		70-130	Pass	
sec-Butylbenzene	%	98		70-130	Pass	
Styrene	%	97		70-130	Pass	
tert-Butylbenzene	%	96		70-130	Pass	
Toluene	%	103		70-130	Pass	
Total m+p-Xylenes	%	99		70-130	Pass	
Vinyl acetate	%	113		70-130	Pass	
LCS - % Recovery						
BTEX E029/E016 BTEX		Result 1				
Xylenes(ortho.meta and para)	%	91		70-130	Pass	
LCS - % Recovery						
Total Recoverable Hydrocarbons E004 Petroleum Hydrocarbon		Result 1				
TRH C10-C14 Fraction by GC	%	94		70-130	Pass	
TRH C15-C28 Fraction by GC	%	102		70-130	Pass	
LCS - % Recovery						
Polychlorinated Biphenyls (PCB) E013 Polychlorinated Biphen		Result 1				
Aroclor-1248	%	126		70-130	Pass	
Aroclor-1254	%	97		70-130	Pass	
LCS - % Recovery						
Speciated Phenols E008 Speciated Phenols		Result 1				
Phenol	%	99		70-130	Pass	
2-Methylphenol (o-Cresol)	%	113		70-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	51		70-130	Fail	Q17
2-Chlorophenol	%	85		70-130	Pass	
2-Nitrophenol	%	73		70-130	Pass	
4-Chloro-3-methylphenol	%	83		70-130	Pass	
Pentachlorophenol	%	88		70-130	Pass	
LCS - % Recovery						
Organochlorine Pesticides (OC) E013 Organochlorine Pesticid		Result 1				
4,4'-DDD	%	94		70-130	Pass	
4,4'-DDE	%	90		70-130	Pass	
4,4'-DDT	%	88		70-130	Pass	
a-BHC	%	91		70-130	Pass	
a-Chlordane	%	95		70-130	Pass	
Aldrin	%	93		70-130	Pass	
b-BHC	%	94		70-130	Pass	
d-BHC	%	87		70-130	Pass	
Dieldrin	%	93		70-130	Pass	
Endosulfan I	%	96		70-130	Pass	
Endosulfan II	%	96		70-130	Pass	
Endosulfan sulphate	%	90		70-130	Pass	
Endrin	%	91		70-130	Pass	
Endrin aldehyde	%	104		70-130	Pass	
Endrin ketone	%	99		70-130	Pass	
g-BHC (Lindane)	%	92		70-130	Pass	
g-Chlordane	%	94		70-130	Pass	
Heptachlor	%	93		70-130	Pass	
Heptachlor epoxide	%	94		70-130	Pass	
Hexachlorobenzene	%	92		70-130	Pass	
Methoxychlor	%	97		70-130	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
LCS - % Recovery							
Polyaromatic Hydrocarbons (PAH) E007 Polyaromatic Hydrocarbons		Result 1					
Acenaphthene	%	73			70-130	Pass	
Acenaphthylene	%	87			70-130	Pass	
Anthracene	%	86			70-130	Pass	
Benz(a)anthracene	%	100			70-130	Pass	
Benzo(a)pyrene	%	109			70-130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	%	106			70-130	Pass	
Benzo(g,h,i)perylene	%	88			70-130	Pass	
Chrysene	%	97			70-130	Pass	
Dibenz(a,h)anthracene	%	97			70-130	Pass	
Fluoranthene	%	102			70-130	Pass	
Fluorene	%	75			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	96			70-130	Pass	
Naphthalene	%	90			70-130	Pass	
Phenanthrene	%	91			70-130	Pass	
Pyrene	%	104			70-130	Pass	
LCS - % Recovery							
		Result 1					
Ammonia(N)	%	94			70-130	Pass	
Cyanide (total)	%	93			70-130	Pass	
Sulphate (S)	%	99			70-130	Pass	
LCS - % Recovery							
		Result 1					
Antimony (filtered)	%	102			70-130	Pass	
Arsenic (filtered)	%	111			70-130	Pass	
Boron (filtered)	%	112			70-130	Pass	
Cadmium (filtered)	%	103			70-130	Pass	
Chromium (filtered)	%	98			70-130	Pass	
Cobalt (filtered)	%	99			70-130	Pass	
Copper (filtered)	%	99			70-130	Pass	
Lead (filtered)	%	98			70-130	Pass	
Manganese (filtered)	%	97			70-130	Pass	
Mercury (filtered)	%	100			70-130	Pass	
Molybdenum (filtered)	%	100			70-130	Pass	
Nickel (filtered)	%	96			70-130	Pass	
Selenium (filtered)	%	100			70-130	Pass	
Tin (filtered)	%	94			70-130	Pass	
Vanadium (filtered)	%	103			70-130	Pass	
Zinc (filtered)	%	94			70-130	Pass	
[Duplicate of S11-Ap30478]							
Total Recoverable Hydrocarbons		Result 1	Result 2	RPD			
TRH C6-C9 Fraction by GC	mg/L	0.03	0.04	10	30%	Pass	
[Duplicate of S11-Ap30478]							
Volatile Halogenated Compounds (VHC)		Result 1	Result 2	RPD			
Chlorobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloroethane	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Chloroform	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Chloromethane	mg/L	< 0.05	< 0.05	<1	30%	Pass	
cis-1,2-Dichloroethene	mg/L	< 0.005	-1.65	<1	30%	Pass	
cis-1,3-Dichloropropene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dibromochloromethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Dichlorodifluoromethane	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobutadiene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Methylene Chloride	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Tetrachloroethene	mg/L	0.02	0.019	9	30%	Pass	
trans-1,2-Dichloroethene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
trans-1,3-Dichloropropene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Trichloroethene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Trichlorofluoromethane	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Vinyl chloride	mg/L	< 0.05	< 0.05	<1	30%	Pass	
[Duplicate of S11-Ap30478]							
Volatile Organic Compounds (VOC)		Result 1	Result 2	RPD			
1,1-Dichloroethene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1,1,1-Trichloroethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1,1,1,2-Tetrachloroethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
1.1.2-Trichloroethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dibromo-3-chloropropane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dibromoethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dichlorobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dichloroethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2-Dichloropropane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.3-Trichloropropane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4-Trichlorobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.2.4-Trimethylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3-Dichlorobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3-Dichloropropane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.3.5-Trimethylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
1.4-Dichlorobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Butanone (MEK)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Chlorotoluene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Hexanone	mg/L	< 0.005	< 0.005	<1	30%	Pass	
2-Pentanone		< 0.005	< 0.005	<1	30%	Pass	
2.2-Dichloropropane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Chlorotoluene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Benzene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Bromobenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bromodichloromethane	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bromoform	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Bromomethane	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Carbon Tetrachloride	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Ethyl Acetate		< 0.005	< 0.005	<1	30%	Pass	
Ethylbenzene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Isopropyl benzene (Cumene)	mg/L	< 0.001	< 0.005	<1	30%	Pass	
n-Butylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
n-Propylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Naphthalene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
o-Xylene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
p-Isopropyltoluene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
sec-Butylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Styrene	mg/L	< 0.001	< 0.005	<1	30%	Pass	
tert-Butylbenzene	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Toluene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Total m+p-Xylenes	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Vinyl acetate	mg/L	< 0.005	< 0.005	<1	30%	Pass	
[Duplicate of S11-Ap30478]							
BTEX		Result 1	Result 2	RPD			
Xylenes(ortho.meta and para)	mg/L	< 0.003	< 0.003	<1	30%	Pass	
[Duplicate of S11-Ap30324 - BATCH]							
Speciated Phenols		Result 1	Result 2	RPD			
Phenol	mg/L	< 0.002	< 0.002	<1	30%	Pass	
2-Methylphenol (o-Cresol)	mg/L	< 0.002	< 0.002	<1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/L	< 0.004	< 0.004	<1	30%	Pass	
2-Chlorophenol	mg/L	< 0.002	< 0.002	<1	30%	Pass	
2-Nitrophenol	mg/L	< 0.002	< 0.002	<1	30%	Pass	
4-Chloro-3-methylphenol	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Pentachlorophenol	mg/L	< 0.01	< 0.01	<1	30%	Pass	
[Duplicate of S11-Ap30194 - BATCH]							
Polyaromatic Hydrocarbons (PAH)		Result 1	Result 2	RPD			
Acenaphthene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoranthene	mg/L	< 0.002	< 0.002	<1	30%	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Naphthalene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	mg/L	< 0.001	< 0.001	<1	30%	Pass	
[Duplicate of S11-Ap30478]							
		Result 1	Result 2	RPD			
Ammonia(N)	mg/L	0.21	0.21	1	30%	Pass	
[Duplicate of S11-Ap30478]							
		Result 1	Result 2	RPD			
Antimony (filtered)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Arsenic (filtered)	mg/L	0.007	0.007	3	30%	Pass	
Boron (filtered)	mg/L	0.03	0.03	6	30%	Pass	
Cadmium (filtered)	mg/L	0.0021	0.0021	<1	30%	Pass	
Chromium (filtered)	mg/L	0.012	0.014	17	30%	Pass	
Cobalt (filtered)	mg/L	0.17	0.17	1	30%	Pass	
Copper (filtered)	mg/L	0.015	0.015	3	30%	Pass	
Lead (filtered)	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Manganese (filtered)	mg/L	6.6	**	3	30%	Pass	
Mercury (filtered)	mg/L	< 0.0001	< 0.0001	18	30%	Pass	
Molybdenum (filtered)	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Nickel (filtered)	mg/L	0.19	0.18	3	30%	Pass	
Tin (filtered)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Vanadium (filtered)	mg/L	0.034	0.039	16	30%	Pass	
Zinc (filtered)	mg/L	0.41	0.4	1	30%	Pass	
[Duplicate of S11-Ap30480]							
		Result 1	Result 2	RPD			
Ammonia(N)	mg/L	0.17	0.17	2	30%	Pass	
Total Dissolved Solids	mg/L	8100	7500	8	30%	Pass	
[Duplicate of S11-Ap30383 - BATCH]							
		Result 1	Result 2	RPD			
Cyanide (total)	mg/L	< 0.005	< 0.005	<1	30%	Pass	
[Spike of S11-Ap30479] - % Recovery							
Total Recoverable Hydrocarbons		Result 1					
TRH C6-C9 Fraction by GC	%	84			70 - 130	Pass	
[Spike of S11-Ap30479] - % Recovery							
Volatile Organic Compounds (VOC)		Result 1					
Benzene	%	105			70 - 130	Pass	
Ethylbenzene	%	104			70 - 130	Pass	
Isopropyl benzene (Cumene)	%	104			70 - 130	Pass	
o-Xylene	%	104			70 - 130	Pass	
Styrene	%	104			70 - 130	Pass	
Toluene	%	105			70 - 130	Pass	
Total m+p-Xylenes	%	105			70 - 130	Pass	
[Spike of S11-Ap30479] - % Recovery							
BTEX		Result 1					
Xylenes(ortho.meta and para)	%	103			70 - 130	Pass	
[Spike of S11-Ap30478] - % Recovery							
Total Recoverable Hydrocarbons		Result 1					
TRH C15-C28 Fraction by GC	%	78			70 - 130	Pass	
[Spike of S11-Ap30478] - % Recovery							
Speciated Phenols		Result 1					
Phenol	%	125			70 - 130	Pass	
2-Methylphenol (o-Cresol)	%	80			70 - 130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	130			70 - 130	Pass	
2-Chlorophenol	%	123			70 - 130	Pass	
2-Nitrophenol	%	89			70 - 130	Pass	
4-Chloro-3-methylphenol	%	127			70 - 130	Pass	
Pentachlorophenol	%	78			70 - 130	Pass	
[Spike of S11-Ap30478] - % Recovery							
Polyaromatic Hydrocarbons (PAH)		Result 1					
Acenaphthene	%	96			70 - 130	Pass	
Acenaphthylene	%	81			70 - 130	Pass	
Anthracene	%	94			70 - 130	Pass	
Benz(a)anthracene	%	91			70 - 130	Pass	
Benzo(a)pyrene	%	107			70 - 130	Pass	
Benzo(b)fluoranthene & Benzo(k)fluoran	%	101			70 - 130	Pass	
Benzo(g,h,i)perylene	%	85			70 - 130	Pass	

Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Chrysene	%	100			70 - 130	Pass	
Dibenz(a,h)anthracene	%	88			70 - 130	Pass	
Fluoranthene	%	101			70 - 130	Pass	
Fluorene	%	88			70 - 130	Pass	
Indeno(1.2.3-cd)pyrene	%	89			70 - 130	Pass	
Naphthalene	%	87			70 - 130	Pass	
Phenanthrene	%	97			70 - 130	Pass	
Pyrene	%	102			70 - 130	Pass	
[Spike of S11-Ap30478] - % Recovery							
		Result 1					
Ammonia(N)	%	107			70 - 130	Pass	
Cyanide (total)	%	90			70 - 130	Pass	
Sulphate (S)	%	100			70 - 130	Pass	
[Spike of S11-Ap30479] - % Recovery							
		Result 1					
Antimony (filtered)	%	106			70 - 130	Pass	
Arsenic (filtered)	%	118			70 - 130	Pass	
Boron (filtered)	%	108			70 - 130	Pass	
Cadmium (filtered)	%	104			70 - 130	Pass	
Chromium (filtered)	%	102			70 - 130	Pass	
Cobalt (filtered)	%	100			70 - 130	Pass	
Copper (filtered)	%	101			70 - 130	Pass	
Lead (filtered)	%	100			70 - 130	Pass	
Manganese (filtered)	%	79			70 - 130	Pass	Q08
Mercury (filtered)	%	88			70 - 130	Pass	
Molybdenum (filtered)	%	99			70 - 130	Pass	
Nickel (filtered)	%	95			70 - 130	Pass	
Selenium (filtered)	%	112			70 - 130	Pass	
Vanadium (filtered)	%	103			70 - 130	Pass	
Zinc (filtered)	%	100			70 - 130	Pass	

Comments

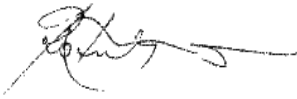
Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference
Q17	LCS Recovery outside of acceptance criteria however acceptable recoveries were obtained for other compounds in this group

Authorised By



Dr. Bob Symons

NATA Signatory

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

mgt-LabMark shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall mgt-LabMark be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

Company Name:	GHD Pty Ltd NSW	Order No.:		Received:	May 4, 2011 12:00
Address:	Level 15, 133 Castlereagh Street Sydney New South Wales 2000	Report #:	298166	Due:	May 5, 2011 04:44
		Phone:	02 9239 7100	Priority:	1 Day
		Fax:	02 9239 7199	Contact name:	Adam Tilling
Client Job No.:	PACIFIC BRANDS WENTWORTHVILLE 2120474 - ADDITIONAL			mgt-LabMark Client Manager: Leanne Knowles	

Sample Detail					Total Dissolved Solids
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site #1261					
Sydney Laboratory - NATA Site #1645					X
GW1	Apr 07, 2011		Water	S11-My30320	X
GW2	Apr 07, 2011		Water	S11-My30321	X
GW8	Apr 06, 2011		Water	S11-My30322	X
BH4	Apr 07, 2011		Water	S11-My30323	X

Certificate of Analysis

GHD Pty Ltd NSW
 Level 15, 133 Castlereagh Street
 Sydney
 New South Wales 2000



NATA Accredited
 Accreditation Number 1261
 Site Number 18217

This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: Adam Tilling

Report 298166-W
 Client Reference PACIFIC BRANDS WENTWORTHVILLE 2120474 - ADDITIONAL
 Received Date May 04, 2011

Client Sample ID			GW1	GW2	GW8	BH4
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			S11-My30320	S11-My30321	S11-My30322	S11-My30323
Date Sampled			Apr 07, 2011	Apr 07, 2011	Apr 06, 2011	Apr 07, 2011
Test/Reference	LOR	Unit				
Total Dissolved Solids	5	mg/L	3400	680	11000	130

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Dissolved Solids - Method: 4110 Total Dissolved Solids	Sydney	May 04, 2011	7 Day

Company Name:	GHD Pty Ltd NSW	Order No.:		Received:	May 4, 2011 12:00
Address:	Level 15, 133 Castlereagh Street Sydney New South Wales 2000	Report #:	298166	Due:	May 5, 2011 04:44
		Phone:	02 9239 7100	Priority:	1 Day
		Fax:	02 9239 7199	Contact name:	Adam Tilling
Client Job No.:	PACIFIC BRANDS WENTWORTHVILLE 2120474 - ADDITIONAL			mgt-LabMark Client Manager: Leanne Knowles	

Sample Detail					Total Dissolved Solids
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site #1261					
Sydney Laboratory - NATA Site #1645					X
GW1	Apr 07, 2011		Water	S11-My30320	X
GW2	Apr 07, 2011		Water	S11-My30321	X
GW8	Apr 06, 2011		Water	S11-My30322	X
BH4	Apr 07, 2011		Water	S11-My30323	X

mgt-LabMark Internal Quality Control Review

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis.
7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

UNITS

mg/kg: milligrams per Kilogram	mg/L: milligrams per litre
µg/l: micrograms per litre	ppm: Parts per million
ppb: Parts per billion	%: Percentage
org/100ml: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-20%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Quality Control Results

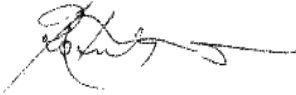
Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Method Blank							
Total Dissolved Solids	mg/L	< 5			5	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By



Dr. Bob Symons

NATA Signatory

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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Company Name:	GHD Pty Ltd NSW	Order No.:		Received:	May 5, 2011 12:00
Address:	Level 15, 133 Castlereagh Street Sydney New South Wales 2000	Report #:	298189	Due:	May 12, 2011 07:08
		Phone:	02 9239 7100	Priority:	5 Day
		Fax:	02 9239 7199	Contact name:	Adam Tilling
Client Job No.:	PACIFIC BRANDS WENTWORTHVILLE 2120474			mgt-LabMark Client Manager: Leanne Knowles	

Sample Detail					Vinyl chloride
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site #1261					
Sydney Laboratory - NATA Site #1645					X
GW1	Apr 07, 2011		Water	S11-My30345	X
GW2	Apr 07, 2011		Water	S11-My30346	X
GW4	Apr 07, 2011		Water	S11-My30347	X
GW6	Apr 07, 2011		Water	S11-My30348	X
GW9	Apr 07, 2011		Water	S11-My30349	X
BH4	Apr 07, 2011		Water	S11-My30350	X
BH5	Apr 07, 2011		Water	S11-My30351	X
GW7	Apr 07, 2011		Water	S11-My30352	X
GW8	Apr 07, 2011		Water	S11-My30353	X
QA1	Apr 07, 2011		Water	S11-My30354	X

Certificate of Analysis

GHD Pty Ltd NSW
 Level 15, 133 Castlereagh Street
 Sydney
 New South Wales 2000



NATA Accredited
 Accreditation Number 1261
 Site Number 18217

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Attention: Adam Tilling

Report 298189-W
 Client Reference PACIFIC BRANDS WENTWORTHVILLE 2120474
 Received Date May 05, 2011

Client Sample ID			GW1	GW2	GW4	GW6
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			(Ultra-trace)	(Ultra-trace)	(Ultra-trace)	(Ultra-trace)
Date Sampled			S11-My30345	S11-My30346	S11-My30347	S11-My30348
Test/Reference	LOR	Unit	Apr 07, 2011	Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Volatile Organics						
Vinyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			GW9	BH4	BH5	GW7
Sample Matrix			Water	Water	Water	Water
mgt-LabMark Sample No.			(Ultra-trace)	(Ultra-trace)	(Ultra-trace)	(Ultra-trace)
Date Sampled			S11-My30349	S11-My30350	S11-My30351	S11-My30352
Test/Reference	LOR	Unit	Apr 07, 2011	Apr 07, 2011	Apr 07, 2011	Apr 07, 2011
Volatile Organics						
Vinyl chloride	0.001	mg/L	< 0.001	< 0.001	< 0.001	< 0.001

Client Sample ID			GW8	QA1
Sample Matrix			Water	Water
mgt-LabMark Sample No.			(Ultra-trace)	(Ultra-trace)
Date Sampled			S11-My30353	S11-My30354
Test/Reference	LOR	Unit	Apr 07, 2011	Apr 07, 2011
Volatile Organics				
Vinyl chloride	0.001	mg/L	< 0.001	< 0.001

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 13, 2011	14 Day

Company Name: GHD Pty Ltd NSW Address: Level 15, 133 Castlereagh Street Sydney New South Wales 2000	Order No.: Report #: 298189 Phone #: 02 9239 7100 Fax: 02 9239 7199	Received: May 5, 2011 12:00 Due: May 12, 2011 07:08 Priority: 5 Day Contact name: Adam Tilling
Client Job No.: PACIFIC BRANDS WENTWORTHVILLE 2120474	mgt-LabMark Client Manager: Leanne Knowles	

Sample Detail					Vinyl chloride
Laboratory where analysis is conducted					
Melbourne Laboratory - NATA Site #1261					
Sydney Laboratory - NATA Site #1645					X
Sample ID	Sample Date	Sampling Time	Matrix	LAB ID	
GW1	Apr 07, 2011		Water	S11-My30345	X
GW2	Apr 07, 2011		Water	S11-My30346	X
GW4	Apr 07, 2011		Water	S11-My30347	X
GW6	Apr 07, 2011		Water	S11-My30348	X
GW9	Apr 07, 2011		Water	S11-My30349	X
BH4	Apr 07, 2011		Water	S11-My30350	X
BH5	Apr 07, 2011		Water	S11-My30351	X
GW7	Apr 07, 2011		Water	S11-My30352	X
GW8	Apr 07, 2011		Water	S11-My30353	X
QA1	Apr 07, 2011		Water	S11-My30354	X

mgt-LabMark Internal Quality Control Review

General

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5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
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Holding Times

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RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
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Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

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3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
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9. For Matrix Spikes and LCS results a dash "-" in the report means that the specific analyte was not added to the QC sample.
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Quality Control Results

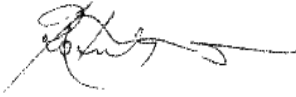
Sample, Test, Result Reference	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Codes
Method Blank							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by							
Vinyl chloride	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Volatile Organics USEPA 8260 - MGT 350A Volatile Organics by							
Vinyl chloride	%	93			70-130	Pass	
[Duplicate of S11-My30345]							
Volatile Organics		Result 1	Result 2	RPD			
Vinyl chloride	mg/L	< 0.001	< 0.005	<1	30%	Pass	
[Spike of S11-My30346] - % Recovery							
Volatile Organics		Result 1					
Vinyl chloride	%	91			70 - 130	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By



Dr. Bob Symons

NATA Signatory

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

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**Pacific Brands, Wentworthville Phase 2 ESA
 Laboratory Reports - Soil**

Sample Location	Laboratory Report No.	Sample Location	Laboratory Report No.
TP01	53287	HA30	53366
TP02	53287	HA31	53366
TP03	53287	HA32	53366
TP04	53287	HA33	53456
TP05	53287	HA34	53366
TP06	53287	HA35	53366
TP07	53427	HA36	53366
TP08	53427	HA37	53406
TP09	53321	HA39	53406
TP10	53427	HA40	53456
TP11	53427	HA41	53406
TP12	53427	HA42	53406
TP13	53427	HA44	53456
TP14	53427	QA01	53287
TP15	53427	QA02	ES1106282
TP16	53427	QA03	53366
TP17	53427	QA04	ES1106406
TP18	53427	QA05	53406
TP19	53427	QA06	ES1106469
TP21	53406	QA07	53456
TP25	53406	QA08	53456
TP28	53406	QA09	ES1106469
TP29	53406, 53366A	QA10	53456
TP30	53406	Trip Blank	53456
TP31	53406	Trip Blank 1	53321
TP32	53406	Trip Blank 2	53366
TP33	53456	Trip Blank 3	53406
TP34	53456, 53366A	RB1	53321
TP35	53406, 53406A	RB2	53366
TP38	53456	RB3	53406
TP39	53456	RB4	53456
TP40	53456		
TP43	53406		
TP45	53366		
HA04	53321		
HA05	53321		
HA06	53406		
HA08	No samples analysed		
HA13	53321		
HA14	53406		
HA17	53321		
HA18	53321		
HA19	53321		
HA23	53321		
HA24	53321		
HA25	53321		
HA26	53456		
HA27	53406		
HA28	53406		
HA29	53366		



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

ABN 39 008 468 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>	Date Required: <u>standard TAT</u>
Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	Date Submitted: <u>22.03.2011</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>
		Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>
			Page <u>1</u> of <u>4</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX				PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10					
1-TP01_0.1	22.03.11	1	Jar		✓	✓				✓	✓	✓	✓	✓	✓								1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
2-TP01_0.5	"	1	"		✓	✓				Hold													2=MAH
3-TP01_1.0	"	1	"		✓	✓				Hold													3=TPH
4-TP01_1.5	"	1	"		✓	✓				Hold													4= PAH
5-TP01_2.0	"	1	"		✓	✓				Hold													5= PCB
6-TP02_0.1	"	1	"		✓	✓				Hold													6=VOC & SVOC
7-TP02_0.5	"	1	"		✓	✓				✓	✓	✓	✓								✓		7= Pesticides
8-TP02_1.0	"	1	"		✓	✓				Hold													8= Asbestos
9-TP02_1.5	"	1	"		✓	✓				Hold													9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
10-TP02_2.0	"	1	"		✓	✓				Hold													

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	22.03.11	1600	<i>Adam Tilling</i>	JHie	ELS	22/3/11	5:30	<i>JHie</i>
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

EnviroLab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200

Job No: **53287**
 Date received: **22/3/11**
 Time received: **5:30**
 Received by: **JHie**
 Temp: Ambient
 Cooling: Ice/Deepack
 Security: Intact Broken/None



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>Envirolab Services</u>	Address: <u>12 Ashley Street</u>
Project Manager <u>Amy Dobson</u>	Email <u>amy.dobson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>
Contact Name <u>Ellen Swanson</u>	Email <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>
		Date Required: <u>standard TAT</u>	Date Submitted: <u>22-03-11</u>
		Page <u>2</u> of <u>4</u>	

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX			PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil		Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10				
11-TP03_1.0	22.03.11	1	Jar		✓					✓	✓	✓	✓										1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
12-TP03_0.5					✓					✓													2=MAH
13-TP03_0.1					✓					Hold													3=TPH
14-TP03_1.5					✓					Hold													4= PAH
15-TP04_0.1					✓					Hold													5= PCB
16-TP04_0.5					✓					Hold													6=VOC & SVOC
17-TP04_1.0					✓					✓	✓	✓	✓										7= Pesticides
18-TP04_1.5					✓					Hold													8= Asbestos
19-TP04_2.0					✓					Hold													9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
20-TP04_2.5					✓					Hold													

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	22.03.11	1600	<i>[Signature]</i>	JHie	ELS	22/3/11	5:30	<i>[Signature]</i>
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194	ABN 99 008 488 373
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>		
Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>		
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com;</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>	Date Required: <u>standard TAT</u>
		Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>	Date Submitted: <u>22-03-11</u>
			Page <u>3</u> of <u>4</u>	

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS										
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10																
21	TP05_0.1	22.03.11	1	Jar		✓					Hold																							1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
22	TP05_0.5					✓					Hold																						2=MAH	
23	TP05_1.0					✓																											3=TPH	
24	TP05_1.5					✓					Hold																						4= PAH	
25	TP05_2.0					✓					Hold																						5= PCB	
26	TP05_2.5					✓					✓																						6=VOC & SVOC	
27	TP06_0.1					✓					Hold																						7= Pesticides	
28	TP06_0.5					✓					Hold																						8= Asbestos	
29	TP06_1.0					✓					Hold	✓	✓	✓																			9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)	
30	TP06_1.5					✓					✓	✓	✓	✓	✓	✓																	10= NEPM Screen	

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	22.03.11	1600	<i>Adam Tilling</i>	JHie	ELS	22/3/11	5:30	<i>JHie</i>
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

ABN 39 008 488 373

Project No. <u>2120474</u> Project Name <u>Phase 2 Environmental Site Assessment</u> Project Manager <u>Amy Dobson</u> Contact Name <u>Ellen Swanson</u>	Phone No. <u>04 32805099</u> Fax No. <u>02 9239 7195</u> Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Telephone: (02) 9239 7100 Sent to Lab: <u>EnviroLab Services</u> Address: <u>12 Ashley Street</u> <u>CHATSWOOD NSW 2067</u> Fax: <u>02 9910 6201</u>
		Attention: <u>Aileen Hie</u> Date Required: <u>standard TAT</u> Date Submitted: <u>22.03.11</u> Page <u>4</u> of <u>4</u>

31
32

SAMPLE No.	Date Sampled	No. of Containers	Container Type/Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10				
TP06-2.0	22.03.11	1	Jar						Hold													1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
QA01	22-03-11	1	Jar						✓	✓	✓	✓										2=MAH
																						3=TPH
																						4= PAH
																						5= PCB
																						6=VOC & SVOC
																						7= Pesticides
																						8= Asbestos
																						9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	22-03-11	1600	[Signature]	JHie	ELS	22/3/11	5:30	[Signature]
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



EnviroLab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53287

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	<u>2120474, Phase 2</u>
No. of samples:	32 soils
Date samples received / completed instructions received	22/03/2011 / 22/03/2011

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 29/03/11 / 30/03/11

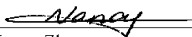
Date of Preliminary Report: Not issued


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Results Approved By:


Nancy Zhang
Chemist


Rhian Morgan
Reporting Supervisor


Nick Sarlamis
Inorganics Supervisor


Jeremy Faircloth
Chemist

EnviroLab Reference: 53287
Revision No: R 00



VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1
chloroform	mg/kg	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1
bromoform	mg/kg	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2
styrene	mg/kg	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1
Surrogate Dibromofluorometha	%	93	91	93
Surrogate aaa-Trifluorotoluene	%	124	117	117
Surrogate Toluene-d8	%	105	103	105
Surrogate 4-Bromofluorobenzene	%	103	101	101

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-7 TP02 0.5 22/03/2011 Soil	53287-11 TP03 1.0 22/03/2011 Soil	53287-17 TP04 1.0 22/03/2011 Soil	53287-29 TP06 1.0 22/03/2011 Soil	53287-32 QA01 - 22/03/2011 Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	91	92	92	94	94
Surrogate aaa-Trifluorotoluene	%	113	115	113	115	119
Surrogate Toluene-d8	%	104	104	104	105	105
Surrogate 4-Bromofluorobenzene	%	103	102	103	102	98

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53287-1	53287-7	53287-11	53287-17	53287-23
Your Reference	-----	TP01	TP02	TP03	TP04	TP05
Depth	-----	0.1	0.5	1.0	1.0	1.0
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	124	113	115	113	117

TRH in Soil (C6-C9)				
Our Reference:	UNITS	53287-29	53287-30	53287-32
Your Reference	-----	TP06	TP06	QA01
Depth	-----	1.0	1.5	-
Date Sampled		22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	115	117	119

sTRH in Soil (C10-C36)	UNITS	53287-1	53287-7	53287-11	53287-17	53287-23
Our Reference:	-----	TP01	TP02	TP03	TP04	TP05
Your Reference	-----					
Depth		0.1	0.5	1.0	1.0	1.0
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	93	95	94	94	94

sTRH in Soil (C10-C36)	UNITS	53287-29	53287-30	53287-32
Our Reference:	-----	TP06	TP06	QA01
Your Reference	-----			
Depth		1.0	1.5	-
Date Sampled		22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	94	92	93

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-7 TP02 0.5 22/03/2011 Soil	53287-11 TP03 1.0 22/03/2011 Soil	53287-17 TP04 1.0 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	86	100	103	99	86

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-29 TP06 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil	53287-32 QA01 - 22/03/2011 Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	104	82	101

Organochlorine Pesticides in soil				
Our Reference:	UNITS	53287-7	53287-23	53287-27
Your Reference	-----	TP02	TP05	TP06
Depth	-----	0.5	1.0	0.1
Date Sampled		22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	85	90

Organophosphorus Pesticides			
Our Reference:	UNITS	53287-7	53287-27
Your Reference	-----	TP02	TP06
Depth	-----	0.5	0.1
Date Sampled		22/03/2011	22/03/2011
Type of sample		Soil	Soil
Date extracted	-	24/03/2011	24/03/2011
Date analysed	-	26/03/2011	26/03/2011
Diazinon	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Chlorpyriphos	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	90

PCBs in Soil				
Our Reference:	UNITS	53287-1	53287-23	53287-30
Your Reference:	-----	TP01	TP05	TP06
Depth	-----	0.1	1.0	1.5
Date Sampled		22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	95	85	91

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil
Date extracted	-	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011
Phenol	mg/kg	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1
carbazole	mg/kg	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1
aniline	mg/kg	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1
safrole	mg/kg	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53287-1 TP01 0.1 22/03/2011 Soil	53287-23 TP05 1.0 22/03/2011 Soil	53287-30 TP06 1.5 22/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1
2-acetylaminofluorene	mg/kg	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1
Endrin	mg/kg	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1
Surrogate 2-fluorophenol	%	71	88	72
Surrogate Phenol-d6	%	90	124	105
Surrogate Nitrobenzene-d5	%	78	109	98
Surrogate 2-fluorobiphenyl	%	89	97	94
Surrogate 2,4,6-Tribromophenol	%	65	69	68
Surrogate p-Terphenyl-d14	%	101	104	93

Speciated Phenols in Soil	UNITS	53287-23
Our Reference:	-----	TP05
Your Reference	-----	1.0
Depth		22/03/2011
Date Sampled		Soil
Type of sample		
Date extracted	-	24/03/2011
Date analysed	-	28/03/2011
Phenol	mg/kg	<1
2-Chlorophenol	mg/kg	<1
2-Methylphenol	mg/kg	<1
3/4-Methylphenol	mg/kg	<2
2-Nitrophenol	mg/kg	<1
2,4-Dimethylphenol	mg/kg	<1
2,4-Dichlorophenol	mg/kg	<1
2,6-dichlorophenol	mg/kg	<1
2,4,5-trichlorophenol	mg/kg	<1
2,4,6-trichlorophenol	mg/kg	<1
2,4-dinitrophenol	mg/kg	<10
4-nitrophenol	mg/kg	<10
2,3,4,6-tetrachlorophenol	mg/kg	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10
pentachlorophenol	mg/kg	<10
Surrogate 2-fluorophenol	%	88
Surrogate Phenol-d6	%	124
Surrogate 2,4,6-Tribromophenol	%	69
Surrogate p-Terphenyl-d14	%	104

Client Reference: 2120474, Phase 2

Acid Extractable metals in soil	UNITS	53287-1	53287-7	53287-11	53287-12	53287-17
Our Reference:	-----	TP01	TP02	TP03	TP03	TP04
Your Reference	-----	0.1	0.5	1.0	0.5	1.0
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Arsenic	mg/kg	8	11	8	9	12
Beryllium	mg/kg	1	<1	<1	2	1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	10	14	14	15	19
Copper	mg/kg	48	40	31	40	38
Cobalt	mg/kg	16	21	7	23	22
Lead	mg/kg	24	22	30	45	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	310	690	160	660	450
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	22	28	7	17	33
Tin	mg/kg	<1	<1	<1	<1	1
Vanadium	mg/kg	27	29	36	29	30
Zinc	mg/kg	82	70	51	170	100

Acid Extractable metals in soil	UNITS	53287-23	53287-26	53287-29	53287-30	53287-32
Our Reference:	-----	TP05	TP05	TP06	TP06	QA01
Your Reference	-----	1.0	2.5	1.0	1.5	-
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Arsenic	mg/kg	9	8	6	14	5
Beryllium	mg/kg	<1	<1	2	1	2
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	5	15	7	9	6
Copper	mg/kg	23	17	39	140	30
Cobalt	mg/kg	4	5	540	15	62
Lead	mg/kg	12	12	20	55	16
Mercury	mg/kg	<0.1	<0.1	0.1	<0.1	0.1
Manganese	mg/kg	57	44	2,900	300	780
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	4	5	75	15	22
Tin	mg/kg	<1	2	<1	2	<1
Vanadium	mg/kg	13	46	17	18	14
Zinc	mg/kg	23	19	230	180	120
Sulphur	mg/kg	180	[NA]	[NA]	[NA]	[NA]
Phosphorus	mg/kg	44	[NA]	[NA]	[NA]	[NA]

Client Reference: 2120474, Phase 2

Moisture						
Our Reference:	UNITS	53287-1	53287-7	53287-11	53287-12	53287-17
Your Reference	-----	TP01	TP02	TP03	TP03	TP04
Depth	-----	0.1	0.5	1.0	0.5	1.0
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Moisture	%	7.8	13	14	10	13

Moisture						
Our Reference:	UNITS	53287-23	53287-26	53287-27	53287-29	53287-30
Your Reference	-----	TP05	TP05	TP06	TP06	TP06
Depth	-----	1.0	2.5	0.1	1.0	1.5
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Moisture	%	9.6	19	16	8.5	9.9

Moisture		
Our Reference:	UNITS	53287-32
Your Reference	-----	QA01
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Soil
Date prepared	-	24/03/2011
Date analysed	-	25/03/2011
Moisture	%	9.8

Miscellaneous Inorg - soil		
Our Reference:	UNITS	53287-23
Your Reference	-----	TP05
Depth	-----	1.0
Date Sampled		22/03/2011
Type of sample		Soil
Date prepared	-	28/3/2011
Date analysed	-	28/3/2011
Total Cyanide	mg/kg	<0.5
Nitrate as N in soil	mg/kg	<0.5
Sulphate, SO ₄ 1:5 soil:water	mg/kg	98
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed byGC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			25/03/2011	53287-1	25/03/2011 25/03/2011	LCS-2	25/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	87%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	96%
2,2-dichloropropane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	94%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	74%
1,1-dichloropropene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	53287-1	<0.5 <0.5	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	85%
bromodichloromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	88%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	53287-1	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	87%
1,2-dibromoethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	53287-1	<1 <1	LCS-2	81%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	53287-1	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	53287-1	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	92	53287-1	93 81 RPD: 14	LCS-2	97%
Surrogate aaa-Trifluorotoluene	%		Org-014	115	53287-1	124 131 RPD: 5	LCS-2	116%
Surrogate Toluene-d8	%		Org-014	102	53287-1	105 95 RPD: 10	LCS-2	107%
Surrogate 4-Bromofluorobenzene	%		Org-014	103	53287-1	103 130 RPD: 23	LCS-2	105%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	[NT]	[NT]	LCS-2	24/03/2011
Date analysed	-			25/03/2011	[NT]	[NT]	LCS-2	25/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-2	99%
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-2	100%
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	106%
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	LCS-2	108%
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-2	110%
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	92	[NT]	[NT]	LCS-2	99%
Surrogate aaa-Trifluorotoluene	%		Org-014	115	[NT]	[NT]	LCS-2	119%
Surrogate Toluene-d8	%		Org-014	102	[NT]	[NT]	LCS-2	104%
Surrogate 4-Bromofluorobenzene	%		Org-014	103	[NT]	[NT]	LCS-2	123%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			25/03/2011	53287-1	25/03/2011 25/03/2011	LCS-2	25/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	53287-1	<25 <25	LCS-2	104%
Surrogate aaa-Trifluorotoluene	%		Org-016	115	53287-1	124 131 RPD: 5	LCS-2	119%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53287-1	<50 <50	LCS-2	95%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53287-1	<100 200	LCS-2	92%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53287-1	<100 170	LCS-2	78%
Surrogate o-Terphenyl	%		Org-003	95	53287-1	93 100 RPD: 7	LCS-2	93%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	96%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	97%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	99%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	96%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	100%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	LCS-2	100%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	53287-1	<0.2 <0.2	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	53287-1	<0.05 <0.05	LCS-2	90%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	87	53287-1	86 80 RPD: 7	LCS-2	101%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	[NT]	[NT]	LCS-1	24/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-1	26/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	101%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	98%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	99%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	95%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	102%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	101%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	100%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	97%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	99%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-1	101%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-005	100	[NT]	[NT]	LCS-1	98%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	[NT]	[NT]	LCS-1	24/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-1	26/03/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-1	92%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-1	120%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-1	107%
Surrogate TCLMX	%		Org-008	100	[NT]	[NT]	LCS-1	102%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			26/03/2011	53287-1	26/03/2011 26/03/2011	LCS-2	26/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	LCS-2	95%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	53287-1	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	100	53287-1	95 91 RPD: 4	LCS-2	92%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-2	24/03/2011
Date analysed	-			28/03/2011	53287-1	28/03/2011 28/03/2011	LCS-2	28/03/2011
Phenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	60%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	63%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	72%
2-Methylphenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53287-1	<2 <2	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-Chloronaphthalene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	63%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	70%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53287-1	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53287-1	<10 <10	LCS-2	89%
Dibenzofuran	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	64%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53287-1	<10 <10	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53287-1	<10 <10	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Fluoranthene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	65%
butylbenzylphthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
acetophenone	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
3-methylcholanthrene	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	92%
Aldrin	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Heptachlor Epoxide	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	53287-1	<1 <1	LCS-2	91%
Endrin	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Methoxychlor	mg/kg	1	Org-012	<1	53287-1	<1 <1	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	80	53287-1	71 81 RPD: 13	LCS-2	90%
Surrogate Phenol-d6	%		Org-012	67	53287-1	90 101 RPD: 12	LCS-2	73%
Surrogate Nitrobenzene-d5	%		Org-012	80	53287-1	78 89 RPD: 13	LCS-2	88%
Surrogate 2-fluorobiphenyl	%		Org-012	96	53287-1	89 93 RPD: 4	LCS-2	106%
Surrogate 2,4,6-Tribromophenol	%		Org-012	63	53287-1	65 61 RPD: 6	LCS-2	66%
Surrogate p-Terphenyl-d14	%		Org-012	103	53287-1	101 107 RPD: 6	LCS-2	109%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
Date extracted	-			24/03/2011	[NT]	[NT]	LCS-2	24/03/2011
Date analysed	-			28/03/2011	[NT]	[NT]	LCS-2	28/03/2011
Phenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-2	60%
2-Chlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-2	63%
2-Methylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	LCS-2	89%
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	80	[NT]	[NT]	LCS-2	90%
Surrogate Phenol-d6	%		Org-012	67	[NT]	[NT]	LCS-2	73%
Surrogate 2,4,6-Tribromophenol	%		Org-012	63	[NT]	[NT]	LCS-2	66%
Surrogate p-Terphenyl-d14	%		Org-012	103	[NT]	[NT]	LCS-2	109%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-1	24/03/2011
Date analysed	-			24/03/2011	53287-1	24/03/2011 24/03/2011	LCS-1	24/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53287-1	8 11 RPD: 32	LCS-1	95%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	1 1 RPD: 0	LCS-1	102%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53287-1	<0.5 <0.5	LCS-1	98%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	10 7 RPD: 35	LCS-1	97%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	48 40 RPD: 18	LCS-1	99%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	16 13 RPD: 21	LCS-1	98%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	24 26 RPD: 8	LCS-1	92%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53287-1	<0.1 <0.1	LCS-1	107%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	310 240 RPD: 25	LCS-1	104%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	<1 <1	LCS-1	96%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	22 15 RPD: 38	LCS-1	96%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	<1 <1	LCS-1	98%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	27 26 RPD: 4	LCS-1	97%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53287-1	82 100 RPD: 20	LCS-1	95%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	103%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	94%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			24/03/2011				
Date analysed	-			25/03/2011				
Moisture	%	0.1	Inorg-008	<0.10				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			28/3/2011	[NT]	[NT]	LCS-1	28/3/2011
Date analysed	-			28/3/2011	[NT]	[NT]	LCS-1	28/3/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	[NT]	[NT]	LCS-1	116%
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	LCS-1	80%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	[NT]	[NT]	LCS-1	98%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	[NT]	[NT]	LCS-1	95%
QUALITY CONTROL	UNITS	Dup. Sm#		Duplicate		Spike Sm#	Spike % Recovery	
VOCs in soil				Base + Duplicate + %RPD				
Date extracted	-	[NT]		[NT]		53287-23	24/03/2011	
Date analysed	-	[NT]		[NT]		53287-23	25/03/2011	
Dichlorodifluoromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Chloromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Vinyl Chloride	mg/kg	[NT]		[NT]		[NR]	[NR]	
Bromomethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Chloroethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
Trichlorofluoromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
1,1-Dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
trans-1,2-dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
1,1-dichloroethane	mg/kg	[NT]		[NT]		53287-23	90%	
cis-1,2-dichloroethene	mg/kg	[NT]		[NT]		[NR]	[NR]	
bromochloromethane	mg/kg	[NT]		[NT]		[NR]	[NR]	
chloroform	mg/kg	[NT]		[NT]		53287-23	97%	
2,2-dichloropropane	mg/kg	[NT]		[NT]		[NR]	[NR]	

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
1,2-dichloroethane	mg/kg	[NT]	[NT]	53287-23	94%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	53287-23	81%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	53287-23	85%
bromodichloromethane	mg/kg	[NT]	[NT]	53287-23	88%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	53287-23	80%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	53287-23	82%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluoromethane	%	[NT]	[NT]	53287-23	97%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	53287-23	112%
Surrogate Toluene-d8	%	[NT]	[NT]	53287-23	106%
Surrogate 4-Bromofluorobenzene	%	[NT]	[NT]	53287-23	102%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	24/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	[NT]	[NT]	53287-23	93%
TRHC ₁₅ - C ₂₈	mg/kg	[NT]	[NT]	53287-23	94%
TRHC ₂₉ - C ₃₆	mg/kg	[NT]	[NT]	53287-23	87%
Surrogate o-Terphenyl	%	[NT]	[NT]	53287-23	91%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	24/03/2011
Naphthalene	mg/kg	[NT]	[NT]	53287-23	98%
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	53287-23	103%
Phenanthrene	mg/kg	[NT]	[NT]	53287-23	102%
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	53287-23	100%
Pyrene	mg/kg	[NT]	[NT]	53287-23	104%
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	53287-23	101%
Benzo(b+k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	53287-23	93%
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> p-Terphenyl-d ₁₄	%	[NT]	[NT]	53287-23	101%
QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	26/03/2011
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	53287-23	96%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	53287-23	95%
Heptachlor	mg/kg	[NT]	[NT]	53287-23	95%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	53287-23	92%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	53287-23	99%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	53287-23	98%
Dieldrin	mg/kg	[NT]	[NT]	53287-23	99%
Endrin	mg/kg	[NT]	[NT]	53287-23	96%
pp-DDD	mg/kg	[NT]	[NT]	53287-23	97%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	53287-23	99%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> TCLMX	%	[NT]	[NT]	53287-23	88%

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QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-7	24/03/2011
Date analysed	-	[NT]	[NT]	53287-7	26/03/2011
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]
Chlorpyriphos	mg/kg	[NT]	[NT]	53287-7	88%
Fenitrothion	mg/kg	[NT]	[NT]	53287-7	84%
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	[NT]	[NT]	53287-7	92%
Surrogate TCLMX	%	[NT]	[NT]	53287-7	88%
QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	26/03/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	53287-23	87%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	53287-23	85%
QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	28/03/2011
Phenol	mg/kg	[NT]	[NT]	53287-23	128%
Bis-(2-chloroethyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chlorophenol	mg/kg	[NT]	[NT]	53287-23	89%
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]	53287-23	106%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Nitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Isophorone	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Methylnaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chloronaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethylphthalate	mg/kg	[NT]	[NT]	53287-23	91%
2,6-Dinitrotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-Nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	53287-23	98%
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	53287-23	120%
Dibenzofuran	mg/kg	[NT]	[NT]	[NR]	[NR]
diethylphthalate	mg/kg	[NT]	[NT]	53287-23	85%
4-chlorophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
azobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-bromophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Phenanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
carbazole	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Pyrene	mg/kg	[NT]	[NT]	53287-23	96%
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
ethylmethanesulfonate	mg/kg	[NT]	[NT]	[NR]	[NR]
aniline	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
benzyl alcohol	mg/kg	[NT]	[NT]	[NR]	[NR]
acetophenone	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosomorpholine	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosopiperidine	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachloropropene-1	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
safrole	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis and trans iso-safrole	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	[NT]	[NT]	[NR]	[NR]
diphenylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
phenacetin	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloronitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dinoseb	mg/kg	[NT]	[NT]	[NR]	[NR]
methapyrilene	mg/kg	[NT]	[NT]	[NR]	[NR]
p-dimethylaminoazobenzen e	mg/kg	[NT]	[NT]	[NR]	[NR]
2-acetylaminofluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
7,12-dimethylbenz(a)anthra cene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-methylcholanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
b-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
g-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	[NT]	[NT]	53287-23	68%
Aldrin	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor Epoxide	mg/kg	[NT]	[NT]	[NR]	[NR]
g-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	[NT]	[NT]	[NR]	[NR]
Dieldrin	mg/kg	[NT]	[NT]	53287-23	70%
Endrin	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDD	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	[NR]	[NR]
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	53287-23	70%
Surrogate Phenol-d6	%	[NT]	[NT]	53287-23	73%
Surrogate Nitrobenzene-d5	%	[NT]	[NT]	53287-23	90%
Surrogate 2-fluorobiphenyl	%	[NT]	[NT]	53287-23	95%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	53287-23	71%
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	53287-23	97%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	LCS-2	24/03/2011
Date analysed	-	[NT]	[NT]	LCS-2	24/03/2011
Arsenic	mg/kg	[NT]	[NT]	LCS-2	95%
Beryllium	mg/kg	[NT]	[NT]	LCS-2	102%
Cadmium	mg/kg	[NT]	[NT]	LCS-2	97%
Chromium	mg/kg	[NT]	[NT]	LCS-2	97%
Copper	mg/kg	[NT]	[NT]	LCS-2	98%
Cobalt	mg/kg	[NT]	[NT]	LCS-2	98%
Lead	mg/kg	[NT]	[NT]	LCS-2	92%
Mercury	mg/kg	[NT]	[NT]	LCS-2	109%
Manganese	mg/kg	[NT]	[NT]	LCS-2	104%

Client Reference: 2120474, Phase 2

QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Molybdenum	mg/kg	[NT]	[NT]	LCS-2	98%
Nickel	mg/kg	[NT]	[NT]	LCS-2	96%
Tin	mg/kg	[NT]	[NT]	LCS-2	101%
Vanadium	mg/kg	[NT]	[NT]	LCS-2	97%
Zinc	mg/kg	[NT]	[NT]	LCS-2	95%
Sulphur	mg/kg	[NT]	[NT]	LCS-2	107%
Phosphorus	mg/kg	[NT]	[NT]	LCS-2	92%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	53287-23	24/03/2011
Date analysed	-	[NT]	[NT]	53287-23	24/03/2011
Arsenic	mg/kg	[NT]	[NT]	53287-23	99%
Beryllium	mg/kg	[NT]	[NT]	53287-23	95%
Cadmium	mg/kg	[NT]	[NT]	53287-23	91%
Chromium	mg/kg	[NT]	[NT]	53287-23	99%
Copper	mg/kg	[NT]	[NT]	53287-23	105%
Cobalt	mg/kg	[NT]	[NT]	53287-23	92%
Lead	mg/kg	[NT]	[NT]	53287-23	89%
Mercury	mg/kg	[NT]	[NT]	53287-23	117%
Manganese	mg/kg	[NT]	[NT]	53287-23	118%
Molybdenum	mg/kg	[NT]	[NT]	53287-23	89%
Nickel	mg/kg	[NT]	[NT]	53287-23	91%
Tin	mg/kg	[NT]	[NT]	53287-23	92%
Vanadium	mg/kg	[NT]	[NT]	53287-23	99%
Zinc	mg/kg	[NT]	[NT]	53287-23	98%
Sulphur	mg/kg	[NT]	[NT]	[NR]	[NR]
Phosphorus	mg/kg	[NT]	[NT]	53287-23	111%

Report Comments:

Total Recoverable Hydrocarbons (Semi Volatile) in soil: The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

Asbestos ID was analysed by Approved Identifier: Not applicable for this job
Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

ABN 39 008 488 373

Project No. 2120474	Phone No. 04 32805099	Telephone: (02) 9239 7100	Fax: (02) 9236 7194
Project Name Phase 2 Environmental Site Assessment	Fax No. 02 9239 7195	Sent to Lab: EnviroLab Services	Date Required: standard TAT
Project Manager Amy Dobson		Address: 12 Ashley Street	Date Submitted: 23/03/11
Contact Name Ellen Swanson	Email amy.dobson@ghd.com ellen.swanson@ghd.com	CHATSWOOD NSW 2067	Page 1 of 3
		Fax: 02 9910 6201	Attention: Alleen Hie Phone: 02 9910 6200

SAMPLE No.	Date Sampled	No. of Containers	Container Type/Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
1	22-03-11	1	Jar		✓	✓			Hold												1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
2					✓	✓															2=MAH
3					✓	✓															3=TPH
4					✓	✓			✓	✓	✓	✓		✓							4= PAH
5					✓	✓			Hold												5= PCB
6					✓	✓			Hold												6=VOC & SVOC
7					✓	✓			✓	✓	✓	✓	✓	✓							7= Pesticides
8					✓	✓			Hold												8= Asbestos
9					✓	✓			✓	✓	✓	✓					✓				9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
10					✓	✓			✓	✓	✓	✓	✓	✓							10= NEPM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	23/03/11	0830	[Signature]	[Signature]		23/3		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
						EnviroLab Services			

EnviroLab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

Job No: 53321 [Signature]
 FILE REF: C:\DOCUME~1\NEKSWAN~1\LOCALS~1\Temp\notas135d09[EnviroLab COC template.xls]Page 1
 Date received: 23/3 1230
 Time received: 1230
 Received by: [Signature]
 Temp: Cool/Ambient
 Cooling: Ice/Inspack
 Security: Intact/Broken/None



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Telephone: (02) 9239 7100

Fax: (02) 9239 7164

ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>Envirolab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>23/03/11</u>
Project Manager <u>Amy Dobson</u>	<u>amy.dobson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Page <u>2</u> of <u>3</u>
Contact Name <u>Ellen Swanson</u>	Email <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
11	HA18_0.5	22.03.11	1	Jar	/	/				/											1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
12	HA19_0.24				/	/				Hold											2=MAH
13	HA19_0.4				/	/														/	3=TPH
14	HA19_0.5				/	/				Hold											4= PAH
15	HA19_0.9				/	/				/											5= PCB
16	HA23_0.3				/	/														/	6=VOC & SVOC
17	HA23_0.5				/	/				Hold											7= Pesticides
18	HA24_0.4				/	/				/	/	/	/			/	/				8= Asbestos
19	HA25_0.2				/	/				/	/	/	/	/	/						9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
20	HA25_0.5				/	/				/											10= NEPM Screen.

RELINQUISHED BY**RECEIVED BY**

Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	23/03/11	0830	<i>Adam Tilling</i>	M 23/3				

RELINQUISHED BY**RECEIVED BY**

Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Telephone: (02) 9239 7100

Fax: (02) 9239 7194

ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>EnviroLab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>23/03/11</u>
Project Manager <u>Amy Dobson</u>		<u>CHATSWOOD NSW 2067</u>	Page <u>3</u> of <u>3</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Attention: <u>Aileen Hie</u> Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS				
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10					
21	TP06_3.0	22.3.11	1	Jar		✓	✓																1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
22	TP09_0.1					✓	✓																2=MAH
23	TP09_0.5					✓	✓																3=TPH
24	TP09_1.0					✓	✓			✓	✓	✓	✓										4= PAH
25	TP09_2.5					✓	✓																5= PCB
26	QA02					✓	✓																6=VOC & SVOC
27	RB1	"	4	2x vials 1x Amber 1x Plastic	✓		✓			✓	✓	✓	✓										7= Pesticides
28	Trip Blank 1	"	1	Jar		✓	✓					✓											8= Asbestos
																							9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
																							10= NEPM SCREEN

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	23/03/11	0830	[Signature]	[Signature]		23/3		
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



EnviroLab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53321

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	26 Soils, 1 Water
Date samples received / completed instructions received	23/03/11 / 23/03/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 30/03/11 / 30/03/11

Date of Preliminary Report: Not issued

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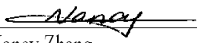
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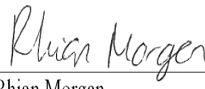
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EnviroLab Reference: 53321
Revision No: R 00



VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	98	99	98	97	96
Surrogate aaa-Trifluorotoluene	%	93	96	95	94	65
Surrogate Toluene-d8	%	100	100	100	100	100
Surrogate 4-Bromofluorobenzene	%	101	101	101	102	101

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
o-Xylene	mg/kg	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	97	102	97	100
Surrogate aaa-Trifluorotoluene	%	78	68	75	100
Surrogate Toluene-d8	%	100	100	100	102
Surrogate 4-Bromofluorobenzene	%	101	106	101	102

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-9 HA17 0.25 22/03/2011 Soil	53321-18 HA24 0.4 22/03/2011 Soil	53321-24 TP09 1.0 22/03/2011 Soil	53321-28 Trip Blank 1 - 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	97	98	97	96
Surrogate aaa-Trifluorotoluene	%	107	70	69	95
Surrogate Toluene-d8	%	101	100	100	100
Surrogate 4-Bromofluorobenzene	%	102	101	100	101

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53321-2	53321-3	53321-4	53321-7	53321-9
Your Reference	-----	HA04	HA05	HA05	HA13	HA17
Depth	-----	0.4	0.25	0.5	1.0	0.25
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	93	96	95	94	107

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53321-10	53321-13	53321-16	53321-18	53321-19
Your Reference	-----	HA18	HA19	HA23	HA24	HA25
Depth	-----	0.35	0.4	0.3	0.4	0.2
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	65	78	68	70	75

TRH in Soil (C6-C9)			
Our Reference:	UNITS	53321-23	53321-24
Your Reference	-----	TP09	TP09
Depth	-----	0.5	1.0
Date Sampled		22/03/2011	22/03/2011
Type of sample		Soil	Soil
Date extracted	-	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25
Surrogate aaa-Trifluorotoluene	%	100	69

sTRH in Soil (C10-C36)	UNITS	53321-2	53321-3	53321-4	53321-7	53321-9
Our Reference:	-----	HA04	HA05	HA05	HA13	HA17
Your Reference	-----	0.4	0.25	0.5	1.0	0.25
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	121	116	120	122	120

sTRH in Soil (C10-C36)	UNITS	53321-10	53321-13	53321-16	53321-18	53321-19
Our Reference:	-----	HA18	HA19	HA23	HA24	HA25
Your Reference	-----	0.35	0.4	0.3	0.4	0.2
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	113	115	118	116	117

sTRH in Soil (C10-C36)	UNITS	53321-23	53321-24
Our Reference:	-----	TP09	TP09
Your Reference	-----	0.5	1.0
Depth			
Date Sampled		22/03/2011	22/03/2011
Type of sample		Soil	Soil
Date extracted	-	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100
Surrogate o-Terphenyl	%	118	114

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-9 HA17 0.25 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.4	<0.1	<0.1	<0.1	0.2
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	82	85	87	87	101

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-10 HA18 0.35 22/03/2011 Soil	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-18 HA24 0.4 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	0.2	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	85	86	83	101	86

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-23 TP09 0.5 22/03/2011 Soil	53321-24 TP09 1.0 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011
Date analysed	-	25/03/2011	25/03/2011
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	85	101

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Phenol	mg/kg	<1	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-4 HA05 0.5 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1	<1
2-acetylaminofluorene	mg/kg	<1	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	74	72	69	104	84
Surrogate Phenol-d6	%	65	73	69	69	67
Surrogate Nitrobenzene-d5	%	88	100	84	102	102
Surrogate 2-fluorobiphenyl	%	88	85	84	90	90
Surrogate 2,4,6-Tribromophenol	%	60	64	60	60	60
Surrogate p-Terphenyl-d14	%	93	90	95	96	98

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Phenol	mg/kg	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-13 HA19 0.4 22/03/2011 Soil	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1
2-acetylaminofluorene	mg/kg	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	71	77	73	73
Surrogate Phenol-d6	%	82	68	70	79
Surrogate Nitrobenzene-d5	%	78	85	68	102
Surrogate 2-fluorobiphenyl	%	87	90	96	90
Surrogate 2,4,6-Tribromophenol	%	66	67	65	64
Surrogate p-Terphenyl-d14	%	99	98	109	102

Speciated Phenols in Soil		53321-2	53321-3	53321-13	53321-16	53321-23
Our Reference:	UNITS	53321-2	53321-3	53321-13	53321-16	53321-23
Your Reference	-----	HA04	HA05	HA19	HA23	TP09
Depth	-----	0.4	0.25	0.4	0.3	0.5
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Phenol	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2	<2
2-Nitrophenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<10	<10	<10	<10	<10
Surrogate 2-fluorophenol	%	74	72	71	77	73
Surrogate Phenol-d6	%	65	73	82	68	79
Surrogate 2,4,6-Tribromophenol	%	60	64	66	67	64
Surrogate p-Terphenyl-d14	%	93	90	99	98	102

Organochlorine Pesticides in soil		53321-2	53321-3	53321-13	53321-16	53321-18
Our Reference:	UNITS	53321-2	53321-3	53321-13	53321-16	53321-18
Your Reference	-----	HA04	HA05	HA19	HA23	HA24
Depth	-----	0.4	0.25	0.4	0.3	0.4
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	85	92	78	69	83

Organochlorine Pesticides in soil		
Our Reference:	UNITS	53321-23
Your Reference	-----	TP09
Depth	-----	0.5
Date Sampled		22/03/2011
Type of sample		Soil
Date extracted	-	25/03/2011
Date analysed	-	26/03/2011
HCB	mg/kg	<0.1
alpha-BHC	mg/kg	<0.1
gamma-BHC	mg/kg	<0.1
beta-BHC	mg/kg	<0.1
Heptachlor	mg/kg	<0.1
delta-BHC	mg/kg	<0.1
Aldrin	mg/kg	<0.1
Heptachlor Epoxide	mg/kg	<0.1
gamma-Chlordane	mg/kg	<0.1
alpha-chlordane	mg/kg	<0.1
Endosulfan I	mg/kg	<0.1
pp-DDE	mg/kg	<0.1
Dieldrin	mg/kg	<0.1
Endrin	mg/kg	<0.1
pp-DDD	mg/kg	<0.1
Endosulfan II	mg/kg	<0.1
pp-DDT	mg/kg	<0.1
Endrin Aldehyde	mg/kg	<0.1
Endosulfan Sulphate	mg/kg	<0.1
Methoxychlor	mg/kg	<0.1
Surrogate TCLMX	%	97

Organophosphorus Pesticides		
Our Reference:	UNITS	53321-18
Your Reference	-----	HA24
Depth	-----	0.4
Date Sampled		22/03/2011
Type of sample		Soil
Date extracted	-	25/03/2011
Date analysed	-	26/03/2011
Diazinon	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Surrogate TCLMX	%	83

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PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-2 HA04 0.4 22/03/2011 Soil	53321-3 HA05 0.25 22/03/2011 Soil	53321-7 HA13 1.0 22/03/2011 Soil	53321-10 HA18 0.35 22/03/2011 Soil	53321-13 HA19 0.4 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	85	92	90	82	78

PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53321-16 HA23 0.3 22/03/2011 Soil	53321-19 HA25 0.2 22/03/2011 Soil	53321-23 TP09 0.5 22/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	69	71	97

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Acid Extractable metals in soil		53321-2	53321-3	53321-4	53321-7	53321-9
Our Reference:	UNITS	53321-2	53321-3	53321-4	53321-7	53321-9
Your Reference	-----	HA04	HA05	HA05	HA13	HA17
Depth	-----	0.4	0.25	0.5	1.0	0.25
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	<4	<4	5	<4	10
Beryllium	mg/kg	1	<1	1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	60	22	29	<1	38
Cobalt	mg/kg	19	3	6	<1	9
Lead	mg/kg	21	9	13	<1	16
Mercury	mg/kg	0.2	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	16	17	13	1	14
Tin	mg/kg	<1	2	<1	<1	<1
Zinc	mg/kg	360	11	94	2	72
Chromium	mg/kg	3	5	8	3	9
Manganese	mg/kg	110	160	64	14	450
Vanadium	mg/kg	6	14	12	3	18
Sulphur	mg/kg	460	320	[NA]	[NA]	[NA]
Phosphorus	mg/kg	76	330	[NA]	[NA]	[NA]

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Acid Extractable metals in soil	UNITS	53321-10	53321-11	53321-13	53321-15	53321-16
Our Reference:	-----	HA18	HA18	HA19	HA19	HA23
Your Reference	-----	0.35	0.5	0.4	0.9	0.3
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	11	10	8	<4	12
Beryllium	mg/kg	1	<1	1	2	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	65	45	38	59	40
Cobalt	mg/kg	25	14	17	8	17
Lead	mg/kg	22	17	24	13	19
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	35	21	9	11	21
Tin	mg/kg	<1	<1	<1	<1	<1
Zinc	mg/kg	130	79	54	120	96
Chromium	mg/kg	8	11	6	7	7
Manganese	mg/kg	1,100	570	350	42	780
Vanadium	mg/kg	24	18	31	25	17
Sulphur	mg/kg	[NA]	[NA]	290	[NA]	440
Phosphorus	mg/kg	[NA]	[NA]	200	[NA]	260

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Acid Extractable metals in soil	UNITS	53321-18	53321-19	53321-20	53321-23	53321-24
Our Reference:	-----	HA24	HA25	HA25	TP09	TP09
Your Reference	-----	0.4	0.2	0.5	0.5	1.0
Depth						
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	8	9	8	<4	5
Beryllium	mg/kg	4	1	<1	3	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	46	71	38	23	16
Cobalt	mg/kg	25	15	5	4	<1
Lead	mg/kg	20	21	17	17	12
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	27	18	5	16	<1
Tin	mg/kg	<1	<1	<1	<1	<1
Zinc	mg/kg	120	130	50	37	5
Chromium	mg/kg	16	7	7	5	5
Manganese	mg/kg	650	240	19	35	9
Vanadium	mg/kg	23	29	13	24	20
Sulphur	mg/kg	[NA]	[NA]	[NA]	110	[NA]
Phosphorus	mg/kg	[NA]	[NA]	[NA]	210	[NA]

Miscellaneous Inorg - soil		53321-2	53321-3	53321-13	53321-16	53321-23
Our Reference:	UNITS	53321-2	53321-3	53321-13	53321-16	53321-23
Your Reference	-----	HA04	HA05	HA19	HA23	TP09
Depth	-----	0.4	0.25	0.4	0.3	0.5
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011	30/03/2011	30/03/2011	30/03/2011
Total Cyanide	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate as N in soil	mg/kg	3.0	20	8.6	<0.5	<0.5
Sulphate, SO ₄ 1:5 soil:water	mg/kg	310	280	270	240	32
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1	<1	<1	<1	<1

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Moisture						
Our Reference:	UNITS	53321-2	53321-3	53321-4	53321-7	53321-9
Your Reference	-----	HA04	HA05	HA05	HA13	HA17
Depth	-----	0.4	0.25	0.5	1.0	0.25
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	7.1	22	10	2.6	7.9

Moisture						
Our Reference:	UNITS	53321-10	53321-11	53321-13	53321-15	53321-16
Your Reference	-----	HA18	HA18	HA19	HA19	HA23
Depth	-----	0.35	0.5	0.4	0.9	0.3
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	21	22	18	15	12

Moisture						
Our Reference:	UNITS	53321-18	53321-19	53321-20	53321-23	53321-24
Your Reference	-----	HA24	HA25	HA25	TP09	TP09
Depth	-----	0.4	0.2	0.5	0.5	1.0
Date Sampled		22/03/2011	22/03/2011	22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	17	12	11	38	16

Moisture		
Our Reference:	UNITS	53321-28
Your Reference	-----	Trip Blank 1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Soil
Date prepared	-	25/03/2011
Date analysed	-	28/03/2011
Moisture	%	2.7

Asbestos ID - soils				
Our Reference:	UNITS	53321-2	53321-9	53321-18
Your Reference	-----	HA04	HA17	HA24
Depth	-----	0.4	0.25	0.4
Date Sampled		22/03/2011	22/03/2011	22/03/2011
Type of sample		Soil	Soil	Soil
Date analysed	-	28/3/2011	28/3/2011	28/3/2011
Sample mass tested	g	Approx 30g	Approx 30g	Approx 30g
Sample Description	-	Soil & Stones	Soil & Stones	Soil & Stones
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

MAH's in water		
Our Reference:	UNITS	53321-27
Your Reference	-----	RB1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	29/03/2011
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Styrene	µg/L	<1
Isopropylbenzene	µg/L	<1
n-propyl benzene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
n-butyl benzene	µg/L	<1
Surrogate Dibromofluoromethane	%	123
Surrogate toluene-d8	%	98
Surrogate 4-BFB	%	92

vTRH in Water (C6-C9)		
Our Reference:	UNITS	53321-27
Your Reference	-----	RB1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	29/03/2011
TRHC ₆ - C ₉	µg/L	<10
<i>Surrogate</i> Dibromofluoromethane	%	123
<i>Surrogate</i> toluene-d8	%	98
<i>Surrogate</i> 4-BFB	%	92

sTRH in Water (C10-C36)		
Our Reference:	UNITS	53321-27
Your Reference	-----	RB1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Water
Date extracted	-	25/03/2011
Date analysed	-	25/03/2011
TRHC ₁₀ - C ₁₄	µg/L	<50
TRHC ₁₅ - C ₂₈	µg/L	<100
TRHC ₂₉ - C ₃₆	µg/L	<100
Surrogate o-Terphenyl	%	112

PAHs in Water		
Our Reference:	UNITS	53321-27
Your Reference	-----	RB1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Water
Date extracted	-	25/03/2011
Date analysed	-	25/03/2011
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Surrogate p-Terphenyl-d14	%	113

Metals in Waters - Dissolved		
Our Reference:	UNITS	53321-27
Your Reference	-----	RB1
Depth	-----	-
Date Sampled		22/03/2011
Type of sample		Water
Date digested	-	28/03/2011
Date analysed	-	28/03/2011
Arsenic - Dissolved	mg/L	<0.05
Beryllium - Dissolved	mg/L	<0.01
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Cobalt - Dissolved	mg/L	<0.02
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0004
Molybdenum - Dissolved	mg/L	<0.03
Nickel - Dissolved	mg/L	<0.02
Tin - Dissolved	mg/L	<0.05
Zinc - Dissolved	mg/L	<0.02
Manganese - Dissolved	mg/L	<0.01
Vanadium - Dissolved	mg/L	<0.02

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed byGC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.
Org-013	Water samples are analysed directly by purge and trap GC-MS.

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-2	26/03/2011 26/03/2011	LCS-3	26/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	77%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	88%
2,2-dichloropropane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	84%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	77%
1,1-dichloropropene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	53321-2	<0.5 <0.5	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	73%
bromodichloromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	80%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	53321-2	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	72%
dibromochloromethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2-dibromoethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	LCS-3	77%
tetrachloroethene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	53321-2	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	53321-2	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	96	53321-2	98 98 RPD: 0	LCS-3	98%
Surrogate aaa-Trifluorotoluene	%		Org-014	108	53321-2	93 105 RPD: 12	LCS-3	105%
Surrogate Toluene-d8	%		Org-014	100	53321-2	100 101 RPD: 1	LCS-3	101%
Surrogate 4-Bromofluorobenzene	%		Org-014	100	53321-2	101 102 RPD: 1	LCS-3	102%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base Duplicate %RPD		
Date extracted	-			25/03/2011	53321-18	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-18	26/03/2011 26/03/2011	LCS-3	26/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	53321-18	<0.5 <0.5	LCS-3	86%
Toluene	mg/kg	0.5	Org-014	<0.5	53321-18	<0.5 <0.5	LCS-3	94%
Ethylbenzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	LCS-3	101%
m+p-xylene	mg/kg	2	Org-014	<2	53321-18	<2 <2	LCS-3	101%
o-Xylene	mg/kg	1	Org-014	<1	53321-18	<1 <1	LCS-3	104%
styrene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53321-18	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	96	53321-18	98 97 RPD: 1	LCS-3	94%
Surrogate aaa-Trifluorotoluene	%		Org-014	108	53321-18	70 89 RPD: 24	LCS-3	117%
Surrogate Toluene-d8	%		Org-014	100	53321-18	100 100 RPD: 0	LCS-3	99%
Surrogate 4-Bromofluorobenzene	%		Org-014	100	53321-18	101 101 RPD: 0	LCS-3	98%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-2	26/03/2011 26/03/2011	LCS-3	26/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	53321-2	<25 <25	LCS-3	97%
Surrogate aaa-Trifluorotoluene	%		Org-016	108	53321-2	93 105 RPD: 12	LCS-3	117%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-2	26/03/2011 26/03/2011	LCS-3	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53321-2	<50 <50	LCS-3	94%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53321-2	<100 <100	LCS-3	95%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53321-2	<100 <100	LCS-3	94%
Surrogate o-Terphenyl	%		Org-003	97	53321-2	121 119 RPD: 2	LCS-3	100%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	LCS-3	96%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	LCS-3	90%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	0.4 0.4 RPD: 0	LCS-3	99%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	LCS-3	94%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	LCS-3	98%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	0.1 0.1 RPD: 0	LCS-3	105%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	53321-2	<0.2 <0.2	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	53321-2	<0.05 <0.05	LCS-3	98%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	91	53321-2	82 83 RPD: 1	LCS-3	83%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			29/03/2011	53321-2	29/03/2011 29/03/2011	LCS-3	29/03/2011
Phenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	110%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	113%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	121%
2-Methylphenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53321-2	<2 <2	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
2-Chloronaphthalene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	91%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	98%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	LCS-3	100%
Dibenzofuran	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	77%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Fluoranthene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	92%
butylbenzylphthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
acetophenone	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
3-methylcholanthrene	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Aldrin	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	73%
Heptachlor Epoxide	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	76%
Endrin	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Methoxychlor	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	68	53321-2	74 75 RPD: 1	LCS-3	95%
<i>Surrogate</i> Phenol-d6	%		Org-012	66	53321-2	65 63 RPD: 3	LCS-3	89%
<i>Surrogate</i> Nitrobenzene-d5	%		Org-012	72	53321-2	88 93 RPD: 6	LCS-3	98%
<i>Surrogate</i> 2-fluorobiphenyl	%		Org-012	91	53321-2	88 89 RPD: 1	LCS-3	91%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	63	53321-2	60 62 RPD: 3	LCS-3	60%
<i>Surrogate</i> p-Terphenyl-d14	%		Org-012	97	53321-2	93 96 RPD: 3	LCS-3	87%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			29/03/2011	53321-2	29/03/2011 29/03/2011	LCS-3	29/03/2011
Phenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	110%
2-Chlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	LCS-3	113%
2-Methylphenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53321-2	<2 <2	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	LCS-3	100%
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53321-2	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53321-2	<10 <10	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	68	53321-2	74 75 RPD: 1	LCS-3	95%
<i>Surrogate</i> Phenol-d6	%		Org-012	66	53321-2	65 63 RPD: 3	LCS-3	89%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	63	53321-2	60 62 RPD: 3	LCS-3	60%
<i>Surrogate</i> p-Terphenyl-d14	%		Org-012	97	53321-2	93 96 RPD: 3	LCS-3	87%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-2	26/03/2011 26/03/2011	LCS-3	26/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	118%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	137%
Heptachlor	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	127%
delta-BHC	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	135%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	136%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	122%
Dieldrin	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	136%
Endrin	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	132%
pp-DDD	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	136%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	LCS-3	134%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	81	53321-2	85 101 RPD: 17	LCS-3	133%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-3	26/03/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	94%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	92%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	93%
Surrogate TCLMX	%		Org-008	81	[NT]	[NT]	LCS-3	92%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53321-2	26/03/2011 26/03/2011	LCS-3	26/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	LCS-3	136%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	53321-2	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	81	53321-2	85 101 RPD: 17	LCS-3	89%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			25/03/2011	53321-2	25/03/2011 25/03/2011	LCS-1	25/03/2011
Date analysed	-			28/03/2011	53321-2	28/03/2011 28/03/2011	LCS-1	28/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53321-2	<4 <4	LCS-1	119%
Antimony	mg/kg	7	Metals-020 ICP-AES	<7	[NT]	[NT]	LCS-1	110%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	1 1 RPD: 0	LCS-1	124%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53321-2	<0.5 <0.5	LCS-1	116%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	60 54 RPD: 11	LCS-1	119%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	19 21 RPD: 10	LCS-1	121%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	21 21 RPD: 0	LCS-1	117%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53321-2	0.2 0.2 RPD: 0	LCS-1	115%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	<1 <1	LCS-1	114%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	16 15 RPD: 6	LCS-1	119%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	<1 <1	LCS-1	113%
Selenium	mg/kg	2	Metals-020 ICP-AES	<2	[NT]	[NT]	LCS-1	121%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	360 300 RPD: 18	LCS-1	120%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	3 3 RPD: 0	LCS-1	118%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	110 180 RPD: 48	LCS-1	122%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53321-2	6 6 RPD: 0	LCS-1	117%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	53321-2	460 400 RPD: 14	LCS-1	118%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	53321-2	76 61 RPD: 22	LCS-1	103%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			28/03/2011	53321-2	28/03/2011 28/03/2011	LCS-1	28/03/2011
Date analysed	-			30/03/2011	53321-2	30/03/2011 30/03/2011	LCS-1	30/03/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	53321-2	<0.5 <0.5	LCS-1	102%
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	53321-2	3.0 3.3 RPD: 10	LCS-1	114%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	53321-2	310 [N/T]	LCS-1	98%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	53321-2	<1 [N/T]	LCS-1	95%

QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			25/03/2011				
Date analysed	-			28/03/2011				
Moisture	%	0.1	Inorg-008	<0.1				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in water						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-W1	29/03/2011
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	93%
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	91%
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	90%
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	LCS-W1	90%
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	89%
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	94	[NT]	[NT]	LCS-W1	98%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	96	[NT]	[NT]	LCS-W1	100%
Surrogate 4-BFB	%		Org-013	99	[NT]	[NT]	LCS-W1	104%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH in Water (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-1	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-1	29/03/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-1	91%
Surrogate Dibromofluoromethane	%		Org-013	94	[NT]	[NT]	LCS-1	98%
Surrogate toluene-d8	%		Org-013	96	[NT]	[NT]	LCS-1	100%
Surrogate 4-BFB	%		Org-013	99	[NT]	[NT]	LCS-1	104%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-1	25/03/2011
Date analysed	-			25/03/2011	[NT]	[NT]	LCS-1	25/03/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	[NT]	[NT]	LCS-1	71%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-1	61%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	[NT]	[NT]	LCS-1	64%
Surrogate o-Terphenyl	%		Org-003	73	[NT]	[NT]	LCS-1	84%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-W1	25/03/2011
Date analysed	-			25/03/2011	[NT]	[NT]	LCS-W1	25/03/2011
Naphthalene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	86%
Acenaphthylene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluorene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	88%
Phenanthrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	91%
Anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	90%
Pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	93%
Benzo(a)anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Chrysene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	102%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water						Base II Duplicate II %RPD		
Benzo(b+k)fluoranthene	µg/L	2	Org-012 subset	<2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	LCS-W1	98%
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	1	Org-012 subset	<1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	80	[NT]	[NT]	LCS-W1	113%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Date digested	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Arsenic - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	109%
Antimony - Dissolved	mg/L	0.15	Metals-020 ICP-AES	<0.1	[NT]	[NT]	LCS-W1	93%
Beryllium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Cadmium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	104%
Chromium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	105%
Copper - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Cobalt - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Lead - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	106%
Mercury - Dissolved	mg/L	0.0004	Metals-021 CV-AAS	<0.0004	[NT]	[NT]	LCS-W1	124%
Molybdenum - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	101%
Nickel - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Tin - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	103%
Selenium - Dissolved	mg/L	0.12	Metals-020 ICP-AES	<0.1	[NT]	[NT]	LCS-W1	114%
Zinc - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	109%
Manganese - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	109%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Vanadium - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	105%
QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery			
Date extracted	-	[NT]	[NT]	53321-3	25/03/2011			
Date analysed	-	[NT]	[NT]	53321-3	26/03/2011			
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]			
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]			
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,1-dichloroethane	mg/kg	[NT]	[NT]	53321-3	72%			
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]			
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
chloroform	mg/kg	[NT]	[NT]	53321-3	82%			
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,2-dichloroethane	mg/kg	[NT]	[NT]	53321-3	78%			
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	53321-3	72%			
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]			
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]			
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]			
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]			
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]			
trichloroethene	mg/kg	[NT]	[NT]	53321-3	68%			
bromodichloromethane	mg/kg	[NT]	[NT]	53321-3	77%			
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]			
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]			
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]			
dibromochloromethane	mg/kg	[NT]	[NT]	53321-3	71%			
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
tetrachloroethene	mg/kg	[NT]	[NT]	53321-3	73%			
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]			
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]			

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QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
e					
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	53321-3	97%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	53321-3	96%
Surrogate Toluene-d8	%	[NT]	[NT]	53321-3	99%
Surrogate 4-Bromofluorobenzene	%	[NT]	[NT]	53321-3	101%

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QUALITY CONTROL TRH in Soil (C6-C9)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53321-18	25/03/2011 25/03/2011	53321-3	25/03/2011
Date analysed	-	53321-18	26/03/2011 26/03/2011	53321-3	26/03/20011
vTRHC ₆ - C ₉	mg/kg	53321-18	<25 <25	53321-3	96%
Surrogate aaa-Trifluorotoluene	%	53321-18	70 89 RPD: 24	53321-3	117%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53321-18	25/03/2011 25/03/2011	53321-3	25/03/2011
Date analysed	-	53321-18	26/03/2011 26/03/2011	53321-3	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	53321-18	<50 <50	53321-3	99%
TRHC ₁₅ - C ₂₈	mg/kg	53321-18	<100 <100	53321-3	100%
TRHC ₂₉ - C ₃₆	mg/kg	53321-18	<100 <100	53321-3	95%
Surrogate o-Terphenyl	%	53321-18	116 117 RPD: 1	53321-3	119%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53321-18	25/03/2011 25/03/2011	53321-3	25/03/2011
Date analysed	-	53321-18	25/03/2011 25/03/2011	53321-3	25/03/2011
Naphthalene	mg/kg	53321-18	<0.1 <0.1	53321-3	86%
Acenaphthylene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	53321-18	<0.1 <0.1	53321-3	82%
Phenanthrene	mg/kg	53321-18	<0.1 <0.1	53321-3	85%
Anthracene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	53321-18	<0.1 <0.1	53321-3	81%
Pyrene	mg/kg	53321-18	<0.1 <0.1	53321-3	84%
Benzo(a)anthracene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	53321-18	<0.1 <0.1	53321-3	86%
Benzo(b+k)fluoranthene	mg/kg	53321-18	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	53321-18	<0.05 <0.05	53321-3	62%
Indeno(1,2,3-c,d)pyrene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	53321-18	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	53321-18	101 101 RPD: 0	53321-3	96%

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QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53321-3	25/03/2011
Date analysed	-	[NT]	[NT]	53321-3	29/03/2011
Phenol	mg/kg	[NT]	[NT]	53321-3	83%
Bis-(2-chloroethyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chlorophenol	mg/kg	[NT]	[NT]	53321-3	83%
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]	53321-3	108%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Nitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Isophorone	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Methylnaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chloronaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethylphthalate	mg/kg	[NT]	[NT]	53321-3	83%
2,6-Dinitrotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-Nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	53321-3	90%
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	53321-3	89%
Dibenzofuran	mg/kg	[NT]	[NT]	[NR]	[NR]
diethylphthalate	mg/kg	[NT]	[NT]	53321-3	70%
4-chlorophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
4-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
azobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-bromophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Phenanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
carbazole	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Pyrene	mg/kg	[NT]	[NT]	53321-3	85%
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
ethylmethanesulfonate	mg/kg	[NT]	[NT]	[NR]	[NR]
aniline	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
benzyl alcohol	mg/kg	[NT]	[NT]	[NR]	[NR]
acetophenone	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosomorpholine	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosopiperidine	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachloropropene-1	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
safrole	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis and trans iso-safrole	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	[NT]	[NT]	[NR]	[NR]
diphenylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
phenacetin	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloronitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dinoseb	mg/kg	[NT]	[NT]	[NR]	[NR]
methapyrilene	mg/kg	[NT]	[NT]	[NR]	[NR]
p-dimethylaminoazobenzen e	mg/kg	[NT]	[NT]	[NR]	[NR]
2-acetylaminofluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
7,12-dimethylbenz(a)anthra cene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-methylcholanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
b-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
g-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	53321-3	68%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	[NR]	[NR]
g-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	[NT]	[NT]	[NR]	[NR]
Dieldrin	mg/kg	[NT]	[NT]	53321-3	71%
Endrin	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDD	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	[NR]	[NR]
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	53321-3	63%
Surrogate Phenol-d6	%	[NT]	[NT]	53321-3	66%
Surrogate Nitrobenzene-d5	%	[NT]	[NT]	53321-3	87%
Surrogate 2-fluorobiphenyl	%	[NT]	[NT]	53321-3	85%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	53321-3	61%
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	53321-3	96%

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QUALITY CONTROL Speciated Phenols in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53321-3	25/03/2011
Date analysed	-	[NT]	[NT]	53321-3	83%
Phenol	mg/kg	[NT]	[NT]	53321-3	83%
2-Chlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	53321-3	89%
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	53321-3	63%
Surrogate Phenol-d6	%	[NT]	[NT]	53321-3	66%
Surrogate 2,4,6-Tribromophenol	%	[NT]	[NT]	53321-3	61%
Surrogate p-Terphenyl-d14	%	[NT]	[NT]	53321-3	96%

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QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53321-3	25/03/2011
Date analysed	-	[NT]	[NT]	53321-3	26/03/2011
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	53321-3	66%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	53321-3	83%
Heptachlor	mg/kg	[NT]	[NT]	53321-3	63%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	53321-3	61%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	53321-3	66%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	53321-3	88%
Dieldrin	mg/kg	[NT]	[NT]	53321-3	66%
Endrin	mg/kg	[NT]	[NT]	53321-3	63%
pp-DDD	mg/kg	[NT]	[NT]	53321-3	88%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	53321-3	65%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	53321-3	75%

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QUALITY CONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53321-3	25/03/2011
Date analysed	-	[NT]	[NT]	53321-3	26/03/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	53321-3	101%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	53321-3	78%
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	53321-18	25/03/2011 25/03/2011	53321-3	25/03/2011
Date analysed	-	53321-18	28/03/2011 28/03/2011	53321-3	28/03/2011
Arsenic	mg/kg	53321-18	8 7 RPD: 13	53321-3	121%
Antimony	mg/kg	[NT]	[NT]	53321-3	112%
Beryllium	mg/kg	53321-18	4 4 RPD: 0	53321-3	117%
Cadmium	mg/kg	53321-18	<0.5 <0.5	53321-3	109%
Copper	mg/kg	53321-18	46 41 RPD: 11	53321-3	123%
Cobalt	mg/kg	53321-18	25 23 RPD: 8	53321-3	119%
Lead	mg/kg	53321-18	20 20 RPD: 0	53321-3	115%
Mercury	mg/kg	53321-18	<0.1 <0.1	53321-3	124%
Molybdenum	mg/kg	53321-18	<1 <1	53321-3	111%
Nickel	mg/kg	53321-18	27 32 RPD: 17	53321-3	121%
Tin	mg/kg	53321-18	<1 <1	53321-3	109%
Selenium	mg/kg	[NT]	[NT]	53321-3	120%
Zinc	mg/kg	53321-18	120 190 RPD: 45	53321-3	117%
Chromium	mg/kg	53321-18	16 13 RPD: 21	53321-3	119%
Manganese	mg/kg	53321-18	650 600 RPD: 8	53321-3	110%
Vanadium	mg/kg	53321-18	23 27 RPD: 16	53321-3	118%
Sulphur	mg/kg	[NT]	[NT]	53321-3	104%
Phosphorus	mg/kg	[NT]	[NT]	53321-3	#

Client Reference: 2120474, Phase 2

QUALITY CONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	53321-3	28/03/2011
Date analysed	-	[NT]	[NT]	[NR]	[NR]
Total Cyanide	mg/kg	[NT]	[NT]	[NR]	[NR]
Nitrate as N in soil	mg/kg	[NT]	[NT]	[NR]	[NR]
Sulphate, SO4 1:5 soil:water	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexavalent Chromium, Cr ⁶⁺	mg/kg	[NT]	[NT]	53321-3	109%

Report Comments:

Acid Extractable Metals in Soil: # Percent recovery not available due to matrix interference, however an acceptable recovery was achieved for the LCS.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield
Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM


Telephone: (02) 9239 7100

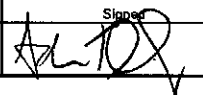

Fax: (02) 9239 7194

ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>Envirolab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>24.03.11</u>
Project Manager <u>Amy Dobson</u>		<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>
			Page <u>1 of 5</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX				PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
1	TP45_0.1	23/3/11	1	Jar	✓					✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
2	TP45_0.5				✓					✓	✓	✓	✓											2=MAH
3	TP45_1.0				✓					Hold														3=TPH
*	QA04				✓					✓	✓	✓	✓	Please forward to ALS for analysis										4=PAH
4	Trip Blank 2				✓					✓	✓													5= PCB
5	RBO2	4	2 x Vials 1 x Amber- 1 x Plastic	✓						✓	✓	✓	✓											6=VOC & SVOC
6	HA32_0.6	1	Jar	✓						Hold														7= Pesticides
7	HA32_0.7			✓						Hold														8= Asbestos
8	HA32_1.0			✓						✓														9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
	HA32_1.0			✓																				


Envirolab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200
 Job No: 53366
 Date received: 24/3 1045
 Time received:
 Received by:
 Pump: Environment
 Coating: Environment
 Security: Environment

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/03/11	0830				24/3/11		
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Telephone: (02) 9239 7100

Fax: (02) 9239 7194

ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>EnviroLab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>24/03/11</u>
Project Manager <u>Amy Dobson</u>		<u>CHATSWOOD NSW 2067</u>	Page <u>2</u> of <u>5</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Attention: <u>Aileen Hie</u>
			Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type/Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
9	HA32-0.12	23/3/11	1	Jar		✓	✓			✓	✓	✓	✓						✓		1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
10	HA32-0.3									Hold											2=MAH
11	HA32-0.4									✓											3=TPH
12	HA29-0.13									✓											4= PAH
13	HA29-0.3									Hold											5= PCB
14	HA29-0.6																			✓	6=VOC & SVOC
15	HA29-0.9									Hold											7= Pesticides
16	HA30-0.16									✓	✓	✓	✓								8= Asbestos
17	HA30-0.35									Hold											9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
18	HA30-0.45									Hold											10= NEMM Screen

RELINQUISHED BY

RECEIVED BY

Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/03/11	0830	[Signature]	[Signature]		24/3		
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia Telephone: (02) 9239 7100 Fax: (02) 9239 7194 ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>EnviroLab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>24/03/14</u>
Project Manager <u>Amy Dobson</u>		<u>CHATSWOOD NSW 2067</u>	Page <u>3</u> of <u>5</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10				
19	HA36_0.14	23/3/11	1	Jar						Hold												1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
20	HA36-0.2									✓	✓	✓	✓									2=MAH
21	HA36_0.37									Hold												3=TPH
22	HA36_0.5									Hold												4= PAH
23	HA36-0.7									Hold												5= PCB
24	HA31-0.12									Hold												6=VOC & SVOC
25	HA31-0.2									✓	✓	✓	✓	✓	✓							7= Pesticides
26	HA31-0.3									Hold												8= Asbestos
27	HA31-0.5									✓												9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
28	HA31-0.7	✓	✓	✓						Hold												

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Amy Tilling	GHD	24/3/14	0830	[Signature]	[Signature]		24/3		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia Telephone: (02) 9239 7100 Fax: (02) 9239 7184 ABN 39 008 488 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>EnviroLab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>27/03/11</u>
Project Manager <u>Amy Dobson</u>		<u>CHATSWOOD NSW 2067</u>	Page <u>4</u> of <u>5</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type/Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
29 QA03	23/3/11	1	Jar						✓	✓	✓	✓								1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
30 HA35-0.15	↓	↓	↓						Hold											2=MAH
31 HA35-0.22	↓	↓	↓						Hold										✓	3=TPH
32 HA35-0.4	↓	↓	↓						✓											4= PAH
33 HA35-1.0	↓	↓	↓						Hold											5= PCB
34 HA35-1.3	↓	↓	↓						Hold											6=VOC & SVOC
35 HA34-0.15	↓	↓	↓						✓											7= Pesticides
36 HA34-0.2	↓	↓	↓						Hold											8= Asbestos
37 HA34-0.45	↓	↓	↓						✓	✓	✓	✓								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
38 HA34-0.5	↓	↓	↓						Hold											10= NEM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/3/11	0830	[Signature]	[Signature]		24/3		
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

FILE REF.: C:\DOCUME~1\EKSWAN~1\LOCALS~1\Temp\006A13ED0\EnviroLab COC template.doc Page 1



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

Telephone: (02) 9239 7100

Fax: (02) 9239 7194

ABN 39 008 488 373

Project No. 2120474 Phone No. 04 32805099
 Project Name Phase 2 Environmental Site Assessment Fax No. 02 9239 7195
 Project Manager Amy Dobson
 Contact Name Ellen Swanson Email amy.dobson@ghd.com; ellen.swanson@ghd.com

Sent to Lab: EnviroLab Services Address: 12 Ashley Street
CHATSWOOD NSW 2067 Attention: Aileen Hie
 Fax: 02 9910 6201 Phone: 02 9910 6200
 Date Required: standard TAT
 Date Submitted: 24/03/11
 Page 5 of 5

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10				
39 HA34-1.6	23/3/11	1	Jar																			1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
40 HA34-2.0	↓	↓	↓																			2=MAH
																						3=TPH
																						4= PAH
																						5= PCB
																						6=VOC & SVOC
																						7= Pesticides
																						8= Asbestos
																						9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/3/11	0830	[Signature]	[Signature]		24/3		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



EnviroLab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53366

Client:

GHD Pty Ltd (Sydney)
Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	39 soils, 1 water
Date samples received / completed instructions received	24/03/11 / 24/03/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 31/03/11 / 31/03/11

Date of Preliminary Report: Not issued

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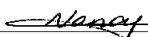
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Results Approved By:



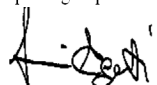
Jacinta Hurst
Laboratory Manager



Nancy Zhang
Chemist




Rhian Morgan
Reporting Supervisor



Giovanni Agosti
Technical Manager



Matt Mansfield
Approved Signatory



Jeremy Faircloth
Chemist

EnviroLab Reference: 53366
Revision No: R 00



VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	97	98	95	94
Surrogate aaa-Trifluorotoluene	%	70	85	99	98
Surrogate Toluene-d8	%	100	101	100	100
Surrogate 4-Bromofluorobenzene	%	101	101	100	100

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-2 TP45 0.5 23/03/2011 Soil	53366-4 TRIP BLK2 - 23/03/2011 Soil	53366-9 HA32 0.12 23/03/2011 Soil	53366-16 HA30 0.16 23/03/2011 Soil	53366-20 HA36 0.2 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	96	99	98	95	96
Surrogate aaa-Trifluorotoluene	%	76	126	140	90	67
Surrogate Toluene-d8	%	100	101	102	100	100
Surrogate 4-Bromofluorobenzene	%	101	102	101	100	101

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-29 QA03 - 23/03/2011 Soil	53366-37 HA34 0.45 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011
Benzene	mg/kg	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
styrene	mg/kg	<1	<1
isopropylbenzene	mg/kg	<1	<1
n-propyl benzene	mg/kg	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1
tert-butyl benzene	mg/kg	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1
sec-butyl benzene	mg/kg	<1	<1
4-isopropyl toluene	mg/kg	<1	<1
n-butyl benzene	mg/kg	<1	<1
<i>Surrogate</i> Dibromofluorometha	%	94	98
<i>Surrogate</i> aaa-Trifluorotoluene	%	78	88
<i>Surrogate</i> Toluene-d ₈	%	101	101
<i>Surrogate</i> 4-Bromofluorobenzene	%	100	101

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53366-1	53366-2	53366-9	53366-14	53366-16
Your Reference	-----	TP45	TP45	HA32	HA29	HA30
Depth	-----	0.1	0.5	0.12	0.6	0.16
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	70	76	140	85	90

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53366-20	53366-25	53366-29	53366-31	53366-37
Your Reference	-----	HA36	HA31	QA03	HA35	HA34
Depth	-----	0.2	0.2	-	0.22	0.45
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	67	99	78	98	88

TRH in Soil (C6-C9)		
Our Reference:	UNITS	53366-39
Your Reference	-----	HA34
Depth	-----	1.6
Date Sampled		23/03/2011
Type of sample		Soil
Date extracted	-	25/03/2011
Date analysed	-	26/03/2011
vTRHC ₆ - C ₉	mg/kg	<25
Surrogate aaa-Trifluorotoluene	%	103

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	53366-1	53366-2	53366-9	53366-14	53366-16
Your Reference	-----	TP45	TP45	HA32	HA29	HA30
Depth	-----	0.1	0.5	0.12	0.6	0.16
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	97	103	91	96	99

sTRH in Soil (C10-C36)						
Our Reference:	UNITS	53366-20	53366-25	53366-29	53366-31	53366-37
Your Reference	-----	HA36	HA31	QA03	HA35	HA34
Depth	-----	0.2	0.2	-	0.22	0.45
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	97	98	71	94	96

sTRH in Soil (C10-C36)		
Our Reference:	UNITS	53366-39
Your Reference	-----	HA34
Depth	-----	1.6
Date Sampled		23/03/2011
Type of sample		Soil
Date extracted	-	25/03/2011
Date analysed	-	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100
Surrogate o-Terphenyl	%	94

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-2 TP45 0.5 23/03/2011 Soil	53366-9 HA32 0.12 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-16 HA30 0.16 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	87	105	104	83	101

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-20 HA36 0.2 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-29 QA03 - 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil	53366-37 HA34 0.45 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate p-Terphenyl-d ₁₄	%	102	86	101	88	100

Organochlorine Pesticides in soil				
Our Reference:	UNITS	53366-1	53366-14	53366-31
Your Reference	-----	TP45	HA29	HA35
Depth	-----	0.1	0.6	0.22
Date Sampled		23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	71	70	98

Organophosphorus Pesticides		
Our Reference:	UNITS	53366-1
Your Reference	-----	TP45
Depth	-----	0.1
Date Sampled		23/03/2011
Type of sample		Soil
Date extracted	-	25/03/2011
Date analysed	-	26/03/2011
Diazinon	mg/kg	<0.1
Dimethoate	mg/kg	<0.1
Chlorpyriphos-methyl	mg/kg	<0.1
Ronnel	mg/kg	<0.1
Chlorpyriphos	mg/kg	<0.1
Fenitrothion	mg/kg	<0.1
Bromophos-ethyl	mg/kg	<0.1
Ethion	mg/kg	<0.1
Surrogate TCLMX	%	71

PCBs in Soil					
Our Reference:	UNITS	53366-1	53366-14	53366-25	53366-31
Your Reference	-----	TP45	HA29	HA31	HA35
Depth	-----	0.1	0.6	0.2	0.22
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	26/03/2011	26/03/2011	26/03/2011	26/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	71	70	87	98

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil
Date extracted	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Phenol	mg/kg	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53366-1 TP45 0.1 23/03/2011 Soil	53366-14 HA29 0.6 23/03/2011 Soil	53366-25 HA31 0.2 23/03/2011 Soil	53366-31 HA35 0.22 23/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1
2-acetylaminofluorene	mg/kg	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	82	76	88	86
Surrogate Phenol-d6	%	73	70	80	80
Surrogate Nitrobenzene-d5	%	80	76	92	94
Surrogate 2-fluorobiphenyl	%	85	88	89	89
Surrogate 2,4,6-Tribromophenol	%	63	63	63	60
Surrogate p-Terphenyl-d14	%	95	94	95	100

Acid Extractable metals in soil		UNITS	53366-1	53366-2	53366-8	53366-9	53366-11
Our Reference:		-----	TP45	TP45	HA32	HA32	HA32
Your Reference		-----					
Depth			0.1	0.5	1.0	0.12	0.4
Date Sampled			23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample			Soil	Soil	Soil	Soil	Soil
Date digested	-		28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-		28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg		11	13	<4	<4	8
Beryllium	mg/kg		<1	<1	<1	<1	<1
Cadmium	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg		14	26	4	40	8
Copper	mg/kg		36	13	24	26	35
Cobalt	mg/kg		15	5	4	15	5
Lead	mg/kg		37	19	16	11	17
Mercury	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg		320	130	18	380	27
Molybdenum	mg/kg		<1	<1	<1	<1	<1
Nickel	mg/kg		27	7	3	41	4
Tin	mg/kg		1	1	<1	1	<1
Vanadium	mg/kg		56	70	12	35	22
Zinc	mg/kg		91	17	34	48	32

Acid Extractable metals in soil		UNITS	53366-12	53366-14	53366-16	53366-20	53366-25
Our Reference:		-----	HA29	HA29	HA30	HA36	HA31
Your Reference		-----					
Depth			0.13	0.6	0.16	0.2	0.2
Date Sampled			23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample			Soil	Soil	Soil	Soil	Soil
Date digested	-		28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-		28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg		<4	6	14	8	<4
Beryllium	mg/kg		<1	<1	1	1	<1
Cadmium	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg		22	12	17	8	23
Copper	mg/kg		61	38	41	35	90
Cobalt	mg/kg		48	6	27	19	31
Lead	mg/kg		4	19	27	19	5
Mercury	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg		650	30	460	430	640
Molybdenum	mg/kg		<1	<1	1	<1	<1
Nickel	mg/kg		190	7	28	15	74
Tin	mg/kg		<1	<1	1	<1	<1
Vanadium	mg/kg		23	16	40	18	48
Zinc	mg/kg		59	62	120	110	55
Sulphur	mg/kg		[NA]	360	[NA]	[NA]	[NA]
Phosphorus	mg/kg		[NA]	110	[NA]	[NA]	[NA]

Client Reference: 2120474, Phase 2

Acid Extractable metals in soil		53366-27	53366-29	53366-31	53366-32	53366-35
Our Reference:	UNITS	53366-27	53366-29	53366-31	53366-32	53366-35
Your Reference	-----	HA31	QA03	HA35	HA35	HA34
Depth	-----	0.5	-	0.22	0.4	0.15
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	8	<4	5	5	<4
Beryllium	mg/kg	1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	10	32	9	8	22
Copper	mg/kg	37	73	30	41	65
Cobalt	mg/kg	13	34	21	4	47
Lead	mg/kg	16	6	18	11	4
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	170	770	360	14	680
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	13	72	19	4	180
Tin	mg/kg	<1	<1	1	<1	<1
Vanadium	mg/kg	20	53	18	8	24
Zinc	mg/kg	85	54	59	32	57
Sulphur	mg/kg	[NA]	[NA]	290	[NA]	[NA]
Phosphorus	mg/kg	[NA]	[NA]	140	[NA]	[NA]

Acid Extractable metals in soil		
Our Reference:	UNITS	53366-37
Your Reference	-----	HA34
Depth	-----	0.45
Date Sampled		23/03/2011
Type of sample		Soil
Date digested	-	28/03/2011
Date analysed	-	28/03/2011
Arsenic	mg/kg	10
Beryllium	mg/kg	1
Cadmium	mg/kg	<0.5
Chromium	mg/kg	11
Copper	mg/kg	35
Cobalt	mg/kg	10
Lead	mg/kg	30
Mercury	mg/kg	<0.1
Manganese	mg/kg	750
Molybdenum	mg/kg	<1
Nickel	mg/kg	7
Tin	mg/kg	2
Vanadium	mg/kg	30
Zinc	mg/kg	82

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Moisture						
Our Reference:	UNITS	53366-1	53366-2	53366-8	53366-9	53366-11
Your Reference	-----	TP45	TP45	HA32	HA32	HA32
Depth	-----	0.1	0.5	1.0	0.12	0.4
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	17	9.6	15	13	15

Moisture						
Our Reference:	UNITS	53366-12	53366-14	53366-16	53366-20	53366-25
Your Reference	-----	HA29	HA29	HA30	HA36	HA31
Depth	-----	0.13	0.6	0.16	0.2	0.2
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	9.3	11	14	9.3	8.1

Moisture						
Our Reference:	UNITS	53366-27	53366-29	53366-31	53366-32	53366-35
Your Reference	-----	HA31	QA03	HA35	HA35	HA34
Depth	-----	0.5	-	0.22	0.4	0.15
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Moisture	%	14	8.9	16	11	11

Moisture			
Our Reference:	UNITS	53366-37	53366-39
Your Reference	-----	HA34	HA34
Depth	-----	0.45	1.6
Date Sampled		23/03/2011	23/03/2011
Type of sample		Soil	Soil
Date prepared	-	25/03/2011	25/03/2011
Date analysed	-	28/03/2011	28/03/2011
Moisture	%	20	43

Miscellaneous Inorg - soil			
Our Reference:	UNITS	53366-14	53366-31
Your Reference	-----	HA29	HA35
Depth	-----	0.6	0.22
Date Sampled		23/03/2011	23/03/2011
Type of sample		Soil	Soil
Date prepared	-	25/03/2011	25/03/2011
Date analysed	-	28/03//2011	28/03/2011
Total Cyanide	mg/kg	<0.5	<0.5
Nitrite as N in soil	mg/kg	<0.1	3.2
Sulphate, SO ₄ 1:5 soil:water	mg/kg	80	50
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1	<1

Asbestos ID - soils		53366-1	53366-2	53366-9	53366-20
Our Reference:	UNITS	TP45	TP45	HA32	HA36
Your Reference	-----				
Depth	-----	0.1	0.5	0.12	0.2
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil
Date analysed	-	28/3/2011	28/3/2011	28/3/2011	28/3/2011
Sample mass tested	g	Approx 30g	Approx 30g	Approx 30g	Approx 30g
Sample Description	-	Clay Soil	Clay Soil	Soil & Stones	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

MAH's in water		
Our Reference:	UNITS	53366-5
Your Reference	-----	RB02
Depth	-----	-
Date Sampled		23/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	29/03/2011
Benzene	µg/L	<1
Toluene	µg/L	<1
Ethylbenzene	µg/L	<1
m+p-xylene	µg/L	<2
o-xylene	µg/L	<1
Styrene	µg/L	<1
Isopropylbenzene	µg/L	<1
n-propyl benzene	µg/L	<1
1,3,5-trimethyl benzene	µg/L	<1
Tert-butyl benzene	µg/L	<1
1,2,4-trimethyl benzene	µg/L	<1
Sec-butyl benzene	µg/L	<1
4-isopropyl toluene	µg/L	<1
n-butyl benzene	µg/L	<1
Surrogate Dibromofluoromethane	%	118
Surrogate toluene-d8	%	96
Surrogate 4-BFB	%	91

vTRH in Water (C6-C9)		
Our Reference:	UNITS	53366-5
Your Reference	-----	RB02
Depth	-----	-
Date Sampled		23/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	29/03/2011
TRHC ₆ - C ₉	µg/L	<10
<i>Surrogate</i> Dibromofluoromethane	%	118
<i>Surrogate</i> toluene-d8	%	96
<i>Surrogate</i> 4-BFB	%	91

sTRH in Water (C10-C36)		
Our Reference:	UNITS	53366-5
Your Reference	-----	RB02
Depth	-----	-
Date Sampled		23/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	28/03/2011
TRHC ₁₀ - C ₁₄	µg/L	<50
TRHC ₁₅ - C ₂₈	µg/L	<100
TRHC ₂₉ - C ₃₆	µg/L	<100
Surrogate o-Terphenyl	%	91

PAHs in Water		
Our Reference:	UNITS	53366-5
Your Reference	-----	RB02
Depth	-----	-
Date Sampled		23/03/2011
Type of sample		Water
Date extracted	-	28/03/2011
Date analysed	-	28/03/2011
Naphthalene	µg/L	<1
Acenaphthylene	µg/L	<1
Acenaphthene	µg/L	<1
Fluorene	µg/L	<1
Phenanthrene	µg/L	<1
Anthracene	µg/L	<1
Fluoranthene	µg/L	<1
Pyrene	µg/L	<1
Benzo(a)anthracene	µg/L	<1
Chrysene	µg/L	<1
Benzo(b+k)fluoranthene	µg/L	<2
Benzo(a)pyrene	µg/L	<1
Indeno(1,2,3-c,d)pyrene	µg/L	<1
Dibenzo(a,h)anthracene	µg/L	<1
Benzo(g,h,i)perylene	µg/L	<1
Surrogate p-Terphenyl-d14	%	106

Metals in Waters - Dissolved		
Our Reference:	UNITS	53366-5
Your Reference	-----	RB02
Depth	-----	-
Date Sampled		23/03/2011
Type of sample		Water
Date digested	-	28/03/2011
Date analysed	-	28/03/2011
Arsenic - Dissolved	mg/L	<0.05
Beryllium - Dissolved	mg/L	<0.01
Cadmium - Dissolved	mg/L	<0.01
Cobalt - Dissolved	mg/L	<0.02
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Mercury - Dissolved	mg/L	<0.0004
Manganese - Dissolved	mg/L	<0.01
Molybdenum - Dissolved	mg/L	<0.03
Nickel - Dissolved	mg/L	<0.02
Lead - Dissolved	mg/L	<0.03
Antimony - Dissolved	mg/L	<0.1
Selenium - Dissolved	mg/L	<0.1
Tin - Dissolved	mg/L	<0.05
Vanadium - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed byGC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrite - determined colourimetrically based on EPA353.2 and APHA 21st ED NO2- B. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.
ASB-001	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.
Org-013	Water samples are analysed directly by purge and trap GC-MS.

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53366-14	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53366-14	26/03/2011 26/03/2011	LCS-3	26/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	77%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	88%
2,2-dichloropropane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	84%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	77%
1,1-dichloropropene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	53366-14	<0.5 <0.5	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	73%
bromodichloromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	80%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	53366-14	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	72%
1,2-dibromoethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	53366-14	<1 <1	LCS-3	77%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	53366-14	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	53366-14	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	96	53366-14	98 96 RPD: 2	LCS-3	96%
Surrogate aaa-Trifluorotoluene	%		Org-014	108	53366-14	85 68 RPD: 22	LCS-3	96%
Surrogate Toluene-d8	%		Org-014	100	53366-14	101 100 RPD: 1	LCS-3	100%
Surrogate 4-Bromofluorobenzene	%		Org-014	100	53366-14	101 99 RPD: 2	LCS-3	100%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-3	26/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-3	86%
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-3	94%
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-3	101%
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	LCS-3	101%
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-3	104%
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	96	[NT]	[NT]	LCS-3	94%
Surrogate aaa-Trifluorotoluene	%		Org-014	108	[NT]	[NT]	LCS-3	117%
Surrogate Toluene-d8	%		Org-014	100	[NT]	[NT]	LCS-3	99%
Surrogate 4-Bromofluorobenzene	%		Org-014	100	[NT]	[NT]	LCS-3	98%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-3	26/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-3	97%
Surrogate aaa-Trifluorotoluene	%		Org-016	108	[NT]	[NT]	LCS-3	117%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53366-14	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53366-14	26/03/2011 26/03/2011	LCS-3	26/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53366-14	<50 <50	LCS-3	91%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53366-14	<100 <100	LCS-3	96%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53366-14	<100 <100	LCS-3	92%
Surrogate o-Terphenyl	%		Org-003	98	53366-14	96 99 RPD: 3	LCS-3	101%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Date analysed	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	96%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	90%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	99%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	94%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	98%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-3	105%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	[NT]	[NT]	LCS-3	98%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	91	[NT]	[NT]	LCS-3	106%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53366-14	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53366-14	26/03/2011 26/03/2011	LCS-3	26/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	118%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	137%
Heptachlor	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	127%
delta-BHC	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	135%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	136%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	122%
Dieldrin	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	136%
Endrin	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	132%
pp-DDD	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	136%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	LCS-3	134%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	81	53366-14	70 73 RPD: 4	LCS-3	133%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	[NT]	[NT]	LCS-3	25/03/2011
Date analysed	-			26/03/2011	[NT]	[NT]	LCS-3	26/03/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	94%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	92%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	93%
Surrogate TCLMX	%		Org-008	81	[NT]	[NT]	LCS-3	92%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53366-14	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			26/03/2011	53366-14	26/03/2011 26/03/2011	LCS-3	26/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	LCS-3	136%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	53366-14	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	81	53366-14	70 73 RPD: 4	LCS-3	89%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			25/03/2011	53366-14	25/03/2011 25/03/2011	LCS-3	25/03/2011
Date analysed	-			29/03/2011	53366-14	29/03/2011 29/03/2011	LCS-3	29/03/2011
Phenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	110%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	113%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	121%
2-Methylphenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53366-14	<2 <2	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-Chloronaphthalene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	91%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	98%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53366-14	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53366-14	<10 <10	LCS-3	100%
Dibenzofuran	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	77%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53366-14	<10 <10	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53366-14	<10 <10	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Fluoranthene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	92%
butylbenzylphthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
acetophenone	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
3-methylcholanthrene	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Aldrin	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	73%
Heptachlor Epoxide	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	53366-14	<1 <1	LCS-3	76%
Endrin	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Methoxychlor	mg/kg	1	Org-012	<1	53366-14	<1 <1	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	68	53366-14	76 81 RPD: 6	LCS-3	95%
Surrogate Phenol-d6	%		Org-012	66	53366-14	70 70 RPD: 0	LCS-3	89%
Surrogate Nitrobenzene-d5	%		Org-012	72	53366-14	76 87 RPD: 13	LCS-3	98%
Surrogate 2-fluorobiphenyl	%		Org-012	91	53366-14	88 91 RPD: 3	LCS-3	91%
Surrogate 2,4,6-Tribromophenol	%		Org-012	63	53366-14	63 60 RPD: 5	LCS-3	60%
Surrogate p-Terphenyl-d14	%		Org-012	97	53366-14	94 98 RPD: 4	LCS-3	87%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			28/03/2011	53366-14	28/03/2011 28/03/2011	LCS-2	28/03/2011
Date analysed	-			28/03/2011	53366-14	28/03/2011 28/03/2011	LCS-2	28/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53366-14	6 7 RPD: 15	LCS-2	116%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	<1 <1	LCS-2	123%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53366-14	<0.5 <0.5	LCS-2	114%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	12 15 RPD: 22	LCS-2	115%

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	38 46 RPD: 19	LCS-2	115%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	6 7 RPD: 15	LCS-2	118%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	19 21 RPD: 10	LCS-2	115%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53366-14	<0.1 <0.1	LCS-2	121%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	30 34 RPD: 12	LCS-2	120%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	<1 <1	LCS-2	113%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	7 9 RPD: 25	LCS-2	117%
Antimony	mg/kg	7	Metals-020 ICP-AES	<7	[NT]	[NT]	LCS-2	127%
Selenium	mg/kg	2	Metals-020 ICP-AES	<2	[NT]	[NT]	LCS-2	120%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	<1 <1	LCS-2	111%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	16 16 RPD: 0	LCS-2	115%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53366-14	62 73 RPD: 16	LCS-2	118%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	53366-14	360 420 RPD: 15	LCS-2	115%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	53366-14	110 120 RPD: 9	LCS-2	102%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			28/03/2011				
Date analysed	-			29/03/2011				
Moisture	%	0.1	Inorg-008	<0.1				
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			25/03/2011	[NT]	[NT]	LCS-1	25/03/2011
Date analysed	-			28/03/2011	[NT]	[NT]	LCS-1	28/03/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	[NT]	[NT]	LCS-1	102%
Nitrite as N in soil	mg/kg	0.1	Inorg-055	<0.1	[NT]	[NT]	LCS-1	114%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	[NT]	[NT]	LCS-1	98%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	[NT]	[NT]	LCS-1	95%

QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in water						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-W1	29/03/2011
Benzene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	93%
Toluene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	91%
Ethylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	90%
m+p-xylene	µg/L	2	Org-013	<2	[NT]	[NT]	LCS-W1	90%
o-xylene	µg/L	1	Org-013	<1	[NT]	[NT]	LCS-W1	89%
Styrene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Isopropylbenzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Tert-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Sec-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	µg/L	1	Org-013	<1	[NT]	[NT]	[NR]	[NR]
Surrogate	%		Org-013	94	[NT]	[NT]	LCS-W1	101%
Dibromofluoromethane								
Surrogate toluene-d8	%		Org-013	96	[NT]	[NT]	LCS-W1	103%
Surrogate 4-BFB	%		Org-013	99	[NT]	[NT]	LCS-W1	96%

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
vTRH in Water (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-W1	29/03/2011
TRHC ₆ - C ₉	µg/L	10	Org-016	<10	[NT]	[NT]	LCS-W1	91%
Surrogate Dibromofluoromethane	%		Org-013	94	[NT]	[NT]	LCS-W1	98%
Surrogate toluene-d8	%		Org-013	96	[NT]	[NT]	LCS-W1	100%
Surrogate 4-BFB	%		Org-013	99	[NT]	[NT]	LCS-W1	104%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Water (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53366-5	28/03/2011 28/03/2011	LCS-1	28/03/2011
Date analysed	-			28/03/2011	53366-5	28/03/2011 28/03/2011	LCS-1	28/03/2011
TRHC ₁₀ - C ₁₄	µg/L	50	Org-003	<50	53366-5	<50 <50	LCS-1	78%
TRHC ₁₅ - C ₂₈	µg/L	100	Org-003	<100	53366-5	<100 <100	LCS-1	97%
TRHC ₂₉ - C ₃₆	µg/L	100	Org-003	<100	53366-5	<100 <100	LCS-1	92%
Surrogate o-Terphenyl	%		Org-003	82	53366-5	91 78 RPD: 15	LCS-1	88%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53366-5	28/03/2011 28/03/2011	LCS-W1	28/03/2011
Date analysed	-			28/03/2011	53366-5	28/03/2011 28/03/2011	LCS-W1	28/03/2011
Naphthalene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	78%
Acenaphthylene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Acenaphthene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Fluorene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	75%
Phenanthrene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	78%
Anthracene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Fluoranthene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	78%
Pyrene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	80%
Benzo(a)anthracene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Chrysene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	84%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Water						Base II Duplicate II %RPD		
Benzo(b+k)fluoranthene	µg/L	2	Org-012 subset	<2	53366-5	<2 <2	[NR]	[NR]
Benzo(a)pyrene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	LCS-W1	81%
Indeno(1,2,3-c,d)pyrene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	µg/L	1	Org-012 subset	<1	53366-5	<1 <1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	81	53366-5	106 83 RPD: 24	LCS-W1	87%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Date digested	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Arsenic - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	109%
Beryllium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Cadmium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	102%
Cobalt - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Chromium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	105%
Copper - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Mercury - Dissolved	mg/L	0.0004	Metals-021 CV-AAS	<0.0004	[NT]	[NT]	LCS-W1	124%
Manganese - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	109%
Molybdenum - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	101%
Nickel - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Lead - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	106%
Antimony - Dissolved	mg/L	0.15	Metals-020 ICP-AES	<0.1	[NT]	[NT]	LCS-W1	93%
Selenium - Dissolved	mg/L	0.12	Metals-020 ICP-AES	<0.1	[NT]	[NT]	LCS-W1	114%
Tin - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	103%
Vanadium - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	105%

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Zinc - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	109%
QUALITY CONTROL Organophosphorus Pesticides	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery			
Date extracted	-	[NT]	[NT]	53366-1	25/03/2011			
Date analysed	-	[NT]	[NT]	53366-1	26/03/2011			
Diazinon	mg/kg	[NT]	[NT]	[NR]	[NR]			
Dimethoate	mg/kg	[NT]	[NT]	[NR]	[NR]			
Chlorpyriphos-methyl	mg/kg	[NT]	[NT]	[NR]	[NR]			
Ronnel	mg/kg	[NT]	[NT]	[NR]	[NR]			
Chlorpyriphos	mg/kg	[NT]	[NT]	53366-1	81%			
Fenitrothion	mg/kg	[NT]	[NT]	53366-1	72%			
Bromophos-ethyl	mg/kg	[NT]	[NT]	[NR]	[NR]			
Ethion	mg/kg	[NT]	[NT]	53366-1	71%			
Surrogate TCLMX	%	[NT]	[NT]	53366-1	72%			
QUALITY CONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery			
Date digested	-	[NT]	[NT]	53366-1	28/03/2011			
Date analysed	-	[NT]	[NT]	53366-1	28/03/2011			
Arsenic	mg/kg	[NT]	[NT]	53366-1	115%			
Beryllium	mg/kg	[NT]	[NT]	53366-1	112%			
Cadmium	mg/kg	[NT]	[NT]	53366-1	105%			
Chromium	mg/kg	[NT]	[NT]	53366-1	113%			
Copper	mg/kg	[NT]	[NT]	53366-1	116%			
Cobalt	mg/kg	[NT]	[NT]	53366-1	103%			
Lead	mg/kg	[NT]	[NT]	53366-1	93%			
Mercury	mg/kg	[NT]	[NT]	53366-1	118%			
Manganese	mg/kg	[NT]	[NT]	53366-1	89%			
Molybdenum	mg/kg	[NT]	[NT]	53366-1	99%			
Nickel	mg/kg	[NT]	[NT]	53366-1	105%			
Antimony	mg/kg	[NT]	[NT]	53366-1	77%			
Selenium	mg/kg	[NT]	[NT]	53366-1	114%			
Tin	mg/kg	[NT]	[NT]	53366-1	102%			
Vanadium	mg/kg	[NT]	[NT]	53366-1	103%			
Zinc	mg/kg	[NT]	[NT]	53366-1	73%			
Sulphur	mg/kg	[NT]	[NT]	[NR]	[NR]			
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]			

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample.

Envirolab recommends supplying 30-40g of sample in it's own container.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield

Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NA: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike: A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample): This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

Aileen Hie

From: Ellen.Swanson@ghd.com
Sent: Monday, 18 April 2011 02:32 PM
To: Aileen Hie
Subject: Additional analysis - 2120474, Pacific Brands

5 3366

Hi Aileen,

Could I please order the following additional analysis for some samples that we have on hold.

TCLP for Lead in sample TP40/0.5
TCLP for Nickel in samples TP35/0.1, HA34/0.15 and HA29/0.13

-35 -12

Thanks.

Regards,

Ellen Swanson
Graduate Environmental Scientist

GHD

T: 61 2 9239 7068 | F: 61 2 9239 7199 | V: 217068 | E: ellen.swanson@ghd.com
Level 15 133 Castlereagh St Sydney NSW 2000 Australia | <http://www.ghd.com/>

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This e-mail has been scanned for viruses by MessageLabs.

EnviroLab Ref: 53366A
Due: 28/4/11
std T/A



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53366-A

Client:

GHD Pty Ltd (Sydney)
Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	Additional Testing on 2 Soils
Date samples received / completed instructions received	24/03/11 / 18/04/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 28/04/11 / 20/04/11


Date of Preliminary Report: Not issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:


Rhian Morgan
Reporting Supervisor

Metals in TCLP USEPA 1311			
Our Reference:	UNITS	53366-A-12	53366-A-35
Your Reference	-----	HA29	HA34
Depth	-----	0.13	0.15
Date Sampled		23/03/2011	23/03/2011
Type of sample		Soil	Soil
Date extracted	-	19/04/2011	19/04/2011
Date analysed	-	19/04/2011	19/04/2011
pH of soil for fluid# determ.	pH units	9.7	9.6
pH of soil for fluid # determ. (acid)	pH units	1.6	1.7
Extraction fluid used	-	1	1
pH of final Leachate	pH units	5.0	5.0
Nickel in TCLP	mg/L	0.07	0.3

MethodID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP).
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in TCLP USEPA1311						Base II Duplicate II %RPD		
Date extracted	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Date analysed	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Nickel in TCLP	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	89%

Report Comments:

Asbestos ID was analysed by Approved Identifier: Not applicable for this job
 Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

Telephone: (02) 9239 7100

Fax: (02) 9239 7194

ABN 39 008 488 373

Project No. 2120474 Phone No. 04 32805099
 Project Name Phase 2 Environmental Site Assessment Fax No. 02 9239 7195
 Project Manager Amy Dobson
 Contact Name Ellen Swanson Email amy.dobson@ghd.com; ellen.swanson@ghd.com

Sent to Lab: EnviroLab Services
 Address: 12 Ashley Street
CHATSWOOD NSW 2067
 Fax: 02 9910 6201

Attention: Aileen Hie
 Phone: 02 9910 6200

Date Required: standard TAT
 Date Submitted: 25/3/11
 Page 1 of 6

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX					PRESERVATION				ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10							
1	TP21_0.5	24/3/11	1	Jar		✓	✓				✓														1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se , Zn, Mn, V)
2	TP25_0.5					✓	✓				✓	✓	✓	✓											2=MAH
3	TP28_0.1					✓	✓				Hold														3=TPH
4	TP28_0.5					✓	✓				Hold														4=PAH
5	TP28_1.0					✓	✓				✓														5=PCB
6	TP28_2.0					✓	✓				✓	MAH	✓	✓											6=VOC & SVOC
7	TP28_3.0					✓	✓				Hold														7= Pesticides
8	TP29_0.1					✓	✓				Hold														8= Asbestos
9	TP29_0.5					✓	✓				Hold														9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
10	TP29_1.0					✓	✓				✓	MAH	✓	✓											10=NEPM Screen

EnviroLab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200

Job No:
 Date received:
 Time received:
 Received by:
 Temp: Cool/Ambient
 Cooling: Ice/Inspack
 Security: Intact/Broken/None

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	0830	[Signature]	[Signature]		25/3/11		

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

EnviroLab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200

FILE REF: C:\DOCUME~1\EKSWAN~1\LOCAL~1\Temp\11413200\EnviroLab\Chain of Custody Request Form Page 1

Job No: ~~3370~~ 53406
 Date received: 25/3 1000
 Time received:
 Received by:
 Temp: Cool/Ambient
 Cooling: Ice/Inspack
 Security: Intact/Broken/None



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 8239 7100	Fax: (02) 9239 7194	ABN 39 008 488 373
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>Envirolab Services</u>	Date Required: <u>standard TAT</u>	
Project Manager <u>Amy Dobson</u>	Address: <u>12 Ashley Street</u>		Date Submitted: <u>25/3/11</u>	
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>	Page <u>2</u> of <u>6</u>
		Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>	

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
11	TP29_2.0	24/3/11	1	Jar	✓	✓				Hold											1= Metals (As, Pb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn, Mn, V)
12	TP30_0.1				✓	✓				✓											2=MAH
13	TP30_0.5				✓	✓															3=TPH
14	TP30_1.0				✓	✓				✓	✓	✓	✓		✓						4= PAH
15	TP30_2.0				✓	✓															5= PCB
16	TP31_0.1				✓	✓				Hold											6=VOC & SVOC
17	TP31_0.5				✓	✓				✓	✓	✓	✓								7= Pesticides
18	TP31_1.0				✓	✓				Hold											8= Asbestos
19	TP31_2.0				✓	✓				✓											9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
20	TP32_0.1				✓	✓				Hold											10= NEPM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	0830	[Signature]	[Signature]		25/3/11		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

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Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	Date Required: <u>standard TAT</u>
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Submitted: <u>25/3/11</u>
		Fax: <u>02 9910 6201</u>	Page <u>4</u> of <u>6</u>
		Attention: <u>Aileen Hie</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX					ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
31 TP43_1.0	29/3/11	1	Jar		✓	✓			Hold												1= Metals (As, Pb , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Sb , Zn) ^{Mn}
32 TP43_1.5					✓	✓			Hold												2=MAH
33 HA06_0.14					✓	✓			Hold												3=TPH
34 HA06_0.5					✓	✓			✓	✓	✓	✓		✓							4= PAH
35 HA06_1.0					✓	✓			Hold												5= PCB
36 HA06_1.5					✓	✓			Hold												6=VOC & SVOC
37 HA08_0.21					✓	✓			Hold Hold												7= Pesticides
38 HA14_0.23					✓	✓			✓	✓	✓	✓									8= Asbestos
39 HA14_0.4					✓	✓			✓												9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
40 HA27_0.14					✓	✓			✓	Hold	✓	✓									

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	0830	<i>[Signature]</i>	<i>[Signature]</i>		25/3		
RELINQUISHED BY					RECEIVED BY				
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GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

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Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Required: <u>standard TAT</u>
		Fax: <u>02 9910 6201</u>	Attention: <u>Aileen Hie</u> Date Submitted: <u>25/3/11</u>
			Page <u>5</u> of <u>6</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
41 HA28_0.22	25/3/11	1	Jar		✓	✓			✓	MAH	✓	✓		✓						1= Metals (As, Pb , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Sr, Zn, Zn)
42 HA28_0.5					✓	✓			Hold	MAH										✓
43 HA37_0.15					✓	✓			✓	MAH	✓	✓								2=MAH
44 HA37_0.3					✓	✓			✓											3=TPH
45 HA37_1.0					✓	✓			Hold											4= PAH
46 HA41_0.21					✓	✓			Hold											5= PCB
47 HA41_0.5					✓	✓			✓	MAH	✓	✓								6=VOC & SVOC
48 HA41_0.62					✓	✓			Hold											7= Pesticides
49 HA39_0.1					✓	✓			Hold											8= Asbestos
50 HA39_0.6	✓	✓	✓		✓	✓			✓	MAH	✓	✓								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	0830	<i>[Signature]</i>	<i>[Signature]</i>		25/3		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

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Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Submitted: <u>25/3/11</u>
		Fax: <u>02 9910 6201</u>	Page <u>6</u> of <u>6</u>
		Attention: <u>Aileen Hie</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
51 HA42-0.3	24/3/11	1	Jar	✓	✓				Hold															1= Metals (As, ^{Mn} Se, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, ^{Se} Zn)
52 HA42-0.5	↓	↓	↓	✓	✓				✓	Hold	✓	✓												2=MAH
53 HA42-0.68	↓	↓	↓	✓	✓				Hold															3=TPH
54 QAS QAS	↓	↓	↓	✓	✓				✓	Hold	Hold	✓	Hold											4=PAH
55 Trip Blank 3	↓	✓	↓	✓	✓					✓														5=PCB
56 RB3	✓	1	1x Plastic	✓		✓	✓		✓															6=VOC & SVOC
																								7= Pesticides
																								8= Asbestos
																								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
							25/3		
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53406

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	55 soils, 1 water
Date samples received / completed instructions received	25/03/11 / 24/03/11


Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

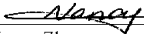
Report Details:

Date results requested by: / Issue Date: 1/04/11 / 1/04/11
Date of Preliminary Report: Not Issued
NATA accreditation number 2901. This document shall not be reproduced except in full.
This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

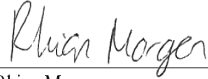
Results Approved By:



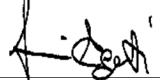
Jacinta Hurst
Laboratory Manager



Nancy Zhang
Chemist



Rhian Morgan
Reporting Supervisor



Giovanni Agosti
Technical Manager



Matt Mansfield
Approved Signatory

Envirolab Reference: 53406
Revision No: R 00



VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil	53406-34 HA06 0.5 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil	53406-34 HA06 0.5 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	84	90	84	84
Surrogate aaa-Trifluorotoluene	%	105	105	103	103
Surrogate Toluene-d8	%	95	97	95	96
Surrogate 4-Bromofluorobenzene	%	94	93	96	94

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-2 TP25 0.5 24/03/2011 Soil	53406-17 TP31 0.5 24/03/2011 Soil	53406-26 TP35 0.5 24/03/2011 Soil	53406-38 HA14 0.23 24/03/2011 Soil	53406-55 Trip Blank 3 - 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	85	84	94	84	84
Surrogate aaa-Trifluorotoluene	%	98	104	78	102	97
Surrogate Toluene-d8	%	96	95	96	97	97
Surrogate 4-Bromofluorobenzene	%	96	93	92	95	93

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53406-2	53406-6	53406-10	53406-14	53406-17
Your Reference	-----	TP25	TP28	TP29	TP30	TP31
Depth	-----	0.5	2.0	1.0	1.0	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	98	92	91	105	104

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53406-22	53406-26	53406-29	53406-30	53406-34
Your Reference	-----	TP32	TP35	TP43	TP43	HA06
Depth	-----	1.0	0.5	0.1	0.5	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	93	78	96	105	103

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53406-38	53406-40	53406-41	53406-43	53406-47
Your Reference	-----	HA14	HA27	HA28	HA37	HA41
Depth	-----	0.23	0.14	0.22	0.15	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	102	89	103	87	85

TRH in Soil (C6-C9)				
Our Reference:	UNITS	53406-50	53406-52	53406-54
Your Reference	-----	HA39	HA42	QA5
Depth	-----	0.6	0.5	-
Date Sampled		24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	90	92	81

sTRH in Soil (C10-C36)	UNITS	53406-2	53406-6	53406-10	53406-14	53406-17
Our Reference:		53406-2	53406-6	53406-10	53406-14	53406-17
Your Reference	-----	TP25	TP28	TP29	TP30	TP31
Depth	-----	0.5	2.0	1.0	1.0	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	101	102	102	103	102

sTRH in Soil (C10-C36)	UNITS	53406-22	53406-26	53406-29	53406-30	53406-34
Our Reference:		53406-22	53406-26	53406-29	53406-30	53406-34
Your Reference	-----	TP32	TP35	TP43	TP43	HA06
Depth	-----	1.0	0.5	0.1	0.5	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	190	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	102	100	101	117	102

sTRH in Soil (C10-C36)	UNITS	53406-38	53406-40	53406-41	53406-43	53406-47
Our Reference:		53406-38	53406-40	53406-41	53406-43	53406-47
Your Reference	-----	HA14	HA27	HA28	HA37	HA41
Depth	-----	0.23	0.14	0.22	0.15	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	101	100	102	100	102

sTRH in Soil (C10-C36)		53406-50	53406-52	53406-54
Our Reference:	UNITS	53406-50	53406-52	53406-54
Your Reference	-----	HA39	HA42	QA5
Depth	-----	0.6	0.5	-
Date Sampled		24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100
Surrogate o-Terphenyl	%	100	99	101

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-2 TP25 0.5 24/03/2011 Soil	53406-6 TP28 2.0 24/03/2011 Soil	53406-10 TP29 1.0 24/03/2011 Soil	53406-14 TP30 1.0 24/03/2011 Soil	53406-17 TP31 0.5 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	89	84	90	71	86

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-22 TP32 1.0 24/03/2011 Soil	53406-24 TP35 0.1 24/03/2011 Soil	53406-26 TP35 0.5 24/03/2011 Soil	53406-29 TP43 0.1 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	88	86	87	87	74

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-34 HA06 0.5 24/03/2011 Soil	53406-38 HA14 0.23 24/03/2011 Soil	53406-40 HA27 0.14 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil	53406-43 HA37 0.15 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	73	88	87	74	87

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-47 HA41 0.5 24/03/2011 Soil	53406-50 HA39 0.6 24/03/2011 Soil	53406-52 HA42 0.5 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.4	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.5	<0.1
Pyrene	mg/kg	<0.1	0.9	<0.1
Benzo(a)anthracene	mg/kg	<0.1	0.2	<0.1
Chrysene	mg/kg	<0.1	0.4	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	0.5	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.37	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	0.2	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	0.3	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	90	88	87

Organochlorine Pesticides in soil		53406-8	53406-14	53406-16	53406-30
Our Reference:	UNITS	53406-8	53406-14	53406-16	53406-30
Your Reference	-----	TP29	TP30	TP31	TP43
Depth	-----	0.1	1.0	0.1	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	98	102	101	97

Organophosphorus Pesticides			
Our Reference:	UNITS	53406-8	53406-16
Your Reference	-----	TP29	TP31
Depth	-----	0.1	0.1
Date Sampled		24/03/2011	24/03/2011
Type of sample		Soil	Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011
Diazinon	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	98	101

PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	102	97

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil	53406-34 HA06 0.5 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	31/03/2011	31/03/2011	31/03/2011	31/03/2011
Phenol	mg/kg	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil	53406-34 HA06 0.5 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-14 TP30 1.0 24/03/2011 Soil	53406-30 TP43 0.5 24/03/2011 Soil	53406-34 HA06 0.5 24/03/2011 Soil	53406-41 HA28 0.22 24/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1
2-acetylamino fluorene	mg/kg	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	131	125	128	123
Surrogate Phenol-d6	%	113	105	84	97
Surrogate Nitrobenzene-d5	%	117	131	113	132
Surrogate 2-fluorobiphenyl	%	89	90	90	90
Surrogate 2,4,6-Tribromophenol	%	69	62	67	60
Surrogate p-Terphenyl-d14	%	86	82	87	82

Acid Extractable metals in soil	UNITS	53406-1	53406-2	53406-5	53406-6	53406-10
Our Reference:	-----	TP21	TP25	TP28	TP28	TP29
Your Reference	-----	0.5	0.5	1.0	2.0	1.0
Depth		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	5	6	10	5	15
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	7	6	3	3	4
Copper	mg/kg	27	25	26	26	29
Cobalt	mg/kg	16	15	2	2	4
Lead	mg/kg	17	16	17	13	15
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	540	210	7	78	83
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	10	6	1	<1	2
Tin	mg/kg	<1	<1	<1	<1	<1
Vanadium	mg/kg	17	19	10	7	12
Zinc	mg/kg	71	36	12	17	22

Acid Extractable metals in soil	UNITS	53406-12	53406-14	53406-17	53406-19	53406-22
Our Reference:	-----	TP30	TP30	TP31	TP31	TP32
Your Reference	-----	0.1	1.0	0.5	2.0	1.0
Depth		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	6	6	<4	10	13
Beryllium	mg/kg	<1	<1	<1	1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	11	11	2	8	19
Copper	mg/kg	20	24	15	80	35
Cobalt	mg/kg	3	9	1	14	9
Lead	mg/kg	27	28	9	58	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	66	240	12	460	250
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	6	14	1	9	22
Tin	mg/kg	<1	<1	<1	<1	<1
Vanadium	mg/kg	30	18	4	16	16
Zinc	mg/kg	37	49	11	88	43
Sulphur	mg/kg	[NA]	120	[NA]	[NA]	[NA]
Phosphorus	mg/kg	[NA]	190	[NA]	[NA]	[NA]

Acid Extractable metals in soil	UNITS	53406-24	53406-26	53406-29	53406-30	53406-34
Our Reference:	-----	TP35	TP35	TP43	TP43	HA06
Your Reference	-----	0.1	0.5	0.1	0.5	0.5
Depth		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	<4	9	4	5	8
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	10	4	43	5	21
Copper	mg/kg	73	40	63	50	15
Cobalt	mg/kg	36	4	26	<1	3
Lead	mg/kg	7	16	35	30	17
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	550	50	610	2	42
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	120	4	80	<1	4
Tin	mg/kg	<1	<1	<1	<1	<1
Vanadium	mg/kg	20	15	49	18	57
Zinc	mg/kg	45	44	56	11	20
Sulphur	mg/kg	[NA]	[NA]	[NA]	180	[NA]
Phosphorus	mg/kg	[NA]	[NA]	[NA]	68	[NA]

Acid Extractable metals in soil						
Our Reference:	UNITS	53406-38	53406-39	53406-40	53406-41	53406-43
Your Reference	-----	HA14	HA14	HA27	HA28	HA37
Depth	-----	0.23	0.4	0.14	0.22	0.15
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	<4	<4	6	5	4
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	3	2	8	17	7
Copper	mg/kg	17	12	30	34	48
Cobalt	mg/kg	<1	<1	9	3	25
Lead	mg/kg	8	24	17	29	10
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Manganese	mg/kg	5	<1	300	40	380
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	<1	<1	9	4	81
Tin	mg/kg	<1	<1	<1	<1	<1
Vanadium	mg/kg	12	8	16	38	14
Zinc	mg/kg	3	2	42	24	42

Acid Extractable metals in soil						
Our Reference:	UNITS	53406-44	53406-47	53406-50	53406-52	53406-54
Your Reference	-----	HA37	HA41	HA39	HA42	QA5
Depth	-----	0.3	0.5	0.6	0.5	-
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Arsenic	mg/kg	10	<4	5	43	7
Beryllium	mg/kg	1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	mg/kg	4	15	16	13	10
Copper	mg/kg	58	58	29	43	34
Cobalt	mg/kg	13	20	2	16	10
Lead	mg/kg	15	7	28	20	23
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	0.1
Manganese	mg/kg	230	420	53	330	330
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	14	53	7	18	12
Tin	mg/kg	<1	<1	<1	<1	<1
Vanadium	mg/kg	13	37	18	46	21
Zinc	mg/kg	48	43	24	61	61

Moisture						
Our Reference:	UNITS	53406-1	53406-2	53406-5	53406-6	53406-8
Your Reference	-----	TP21	TP25	TP28	TP28	TP29
Depth	-----	0.5	0.5	1.0	2.0	0.1
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	13	14	8.7	12	14

Moisture						
Our Reference:	UNITS	53406-10	53406-12	53406-14	53406-16	53406-17
Your Reference	-----	TP29	TP30	TP30	TP31	TP31
Depth	-----	1.0	0.1	1.0	0.1	0.5
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	10	16	8.2	8.3	7.9

Moisture						
Our Reference:	UNITS	53406-19	53406-22	53406-24	53406-26	53406-29
Your Reference	-----	TP31	TP32	TP35	TP35	TP43
Depth	-----	2.0	1.0	0.1	0.5	0.1
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	8.8	8.2	9.5	11	8.9

Moisture						
Our Reference:	UNITS	53406-30	53406-34	53406-38	53406-39	53406-40
Your Reference	-----	TP43	HA06	HA14	HA14	HA27
Depth	-----	0.5	0.5	0.23	0.4	0.14
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	17	18	11	9.1	16

Moisture						
Our Reference:	UNITS	53406-41	53406-43	53406-44	53406-47	53406-50
Your Reference	-----	HA28	HA37	HA37	HA41	HA39
Depth	-----	0.22	0.15	0.3	0.5	0.6
Date Sampled		24/03/2011	24/03/2011	24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	22	12	14	4.9	8.9

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Moisture				
Our Reference:	UNITS	53406-52	53406-54	53406-55
Your Reference	-----	HA42	QA5	Trip Blank 3
Depth	-----	0.5	-	-
Date Sampled		24/03/2011	24/03/2011	24/03/2011
Type of sample		Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011
Moisture	%	12	8.3	3.0

Miscellaneous Inorg - soil			
Our Reference:	UNITS	53406-14	53406-30
Your Reference	-----	TP30	TP43
Depth	-----	1.0	0.5
Date Sampled		24/03/2011	24/03/2011
Type of sample		Soil	Soil
Date prepared	-	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011
Total Cyanide	mg/kg	<0.5	<0.5
Nitrate as N in soil	mg/kg	<0.5	<0.5
Sulphate, SO ₄ 1:5 soil:water	mg/kg	3	2
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1	<1

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-2 TP25 0.5 24/03/2011 Soil	53406-6 TP28 2.0 24/03/2011 Soil	53406-12 TP30 0.1 24/03/2011 Soil	53406-14 TP30 1.0 24/03/2011 Soil	53406-15 TP30 2.0 24/03/2011 Soil
Date analysed	-	30/3/2011	30/3/2011	30/3/2011	30/3/2011	30/3/2011
Sample mass tested	g	Approx 35g	Approx 35g	Approx 35g	Approx 35g	Approx 35g
Sample Description	-	Soil	Soil	Soil	Soil	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53406-17 TP31 0.5 24/03/2011 Soil	53406-22 TP32 1.0 24/03/2011 Soil	53406-23 TP32 2.0 24/03/2011 Soil	53406-54 QA5 - 24/03/2011 Soil
Date analysed	-	30/3/2011	30/3/2011	30/3/2011	30/3/2011
Sample mass tested	g	Approx 35g	Approx 35g	Approx 35g	Approx 35g
Sample Description	-	Soil	Soil	Soil	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Metals in Waters - Dissolved	UNITS	53406-56
Our Reference:	-----	RB3
Your Reference	-----	-
Depth		
Date Sampled		24/03/2011
Type of sample		Water
Date digested	-	28/03/2011
Date analysed	-	28/03/2011
Arsenic - Dissolved	mg/L	<0.05
Beryllium - Dissolved	mg/L	<0.01
Cadmium - Dissolved	mg/L	<0.01
Cobalt - Dissolved	mg/L	<0.02
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Mercury - Dissolved	mg/L	<0.0004
Manganese - Dissolved	mg/L	<0.01
Molybdenum - Dissolved	mg/L	<0.03
Nickel - Dissolved	mg/L	<0.02
Lead - Dissolved	mg/L	<0.03
Tin - Dissolved	mg/L	<0.05
Vanadium - Dissolved	mg/L	<0.02
Zinc - Dissolved	mg/L	<0.02

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.
ASB-001	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			29/03/2011	53406-30	29/03/2011 29/03/2011	LCS-3	29/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	84%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	94%
2,2-dichloropropane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	92%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	77%
1,1-dichloropropene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	53406-30	<0.5 <0.5	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	85%
bromodichloromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	84%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	53406-30	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	84%
1,2-dibromoethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	53406-30	<1 <1	LCS-3	82%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	53406-30	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	53406-30	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	90	53406-30	90 85 RPD: 6	LCS-3	91%
Surrogate aaa-Trifluorotoluene	%		Org-014	127	53406-30	105 108 RPD: 3	LCS-3	116%
Surrogate Toluene-d8	%		Org-014	98	53406-30	97 96 RPD: 1	LCS-3	100%
Surrogate 4-Bromofluorobenzene	%		Org-014	92	53406-30	93 94 RPD: 1	LCS-3	95%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-3	29/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-3	98%
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	LCS-3	106%
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-3	117%
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	LCS-3	120%
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-3	120%
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	90	[NT]	[NT]	LCS-3	101%
Surrogate aaa-Trifluorotoluene	%		Org-014	127	[NT]	[NT]	LCS-3	117%
Surrogate Toluene-d8	%		Org-014	98	[NT]	[NT]	LCS-3	100%
Surrogate 4-Bromofluorobenzene	%		Org-014	92	[NT]	[NT]	LCS-3	112%

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			29/03/2011	53406-30	29/03/2011 29/03/2011	LCS-3	29/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	53406-30	<25 <25	LCS-3	112%
Surrogate aaa-Trifluorotoluene	%		Org-016	127	53406-30	105 108 RPD: 3	LCS-3	117%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-2	28/03/2011
Date analysed	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-2	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53406-30	<50 79	LCS-2	92%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53406-30	190 390 RPD: 69	LCS-2	96%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53406-30	<100 <100	LCS-2	93%
Surrogate o-Terphenyl	%		Org-003	99	53406-30	117 130 RPD: 11	LCS-2	100%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-2	28/03/2011
Date analysed	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-2	28/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	94%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	99%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	112%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	106%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	100%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	LCS-2	105%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	53406-30	<0.2 <0.2	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	53406-30	<0.05 <0.05	LCS-2	103%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	86	53406-30	74 75 RPD: 1	LCS-2	90%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			29/03/2011	53406-30	29/03/2011 29/03/2011	LCS-3	29/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	98%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	81%
Heptachlor	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	97%
delta-BHC	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	92%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	99%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	84%
Dieldrin	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	98%
Endrin	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	94%
pp-DDD	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	85%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	LCS-3	94%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	100	53406-30	97 99 RPD: 2	LCS-3	101%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-3	29/03/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	90%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	88%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	80%
Surrogate TCLMX	%		Org-008	100	[NT]	[NT]	LCS-3	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			29/03/2011	53406-30	29/03/2011 29/03/2011	LCS-3	29/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	LCS-3	122%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	53406-30	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	100	53406-30	97 99 RPD: 2	LCS-3	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			31/03/2011	53406-30	31/03/2011 31/03/2011	LCS-3	31/03/2011
Phenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	117%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	110%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	121%
2-Methylphenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53406-30	<2 <2	[NR]	[NR]

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QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-Chloronaphthalene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	72%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	87%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53406-30	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53406-30	<10 <10	LCS-3	60%
Dibenzofuran	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	71%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53406-30	<10 <10	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53406-30	<10 <10	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Fluoranthene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	76%
butylbenzylphthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
acetophenone	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
3-methylcholanthrene	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Aldrin	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	108%
Heptachlor Epoxide	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	53406-30	<1 <1	LCS-3	110%
Endrin	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Methoxychlor	mg/kg	1	Org-012	<1	53406-30	<1 <1	[NR]	[NR]
Surrogate 2-fluorophenol	%		Org-012	97	53406-30	125 125 RPD: 0	LCS-3	128%
Surrogate Phenol-d6	%		Org-012	87	53406-30	105 83 RPD: 23	LCS-3	115%
Surrogate Nitrobenzene-d5	%		Org-012	91	53406-30	131 114 RPD: 14	LCS-3	116%
Surrogate 2-fluorobiphenyl	%		Org-012	90	53406-30	90 92 RPD: 2	LCS-3	87%
Surrogate 2,4,6-Tribromophenol	%		Org-012	60	53406-30	62 65 RPD: 5	LCS-3	62%
Surrogate p-Terphenyl-d14	%		Org-012	83	53406-30	82 87 RPD: 6	LCS-3	82%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-5	28/03/2011
Date analysed	-			28/03/2011	53406-30	28/03/2011 28/03/2011	LCS-5	28/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53406-30	5 4 RPD: 22	LCS-5	117%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	<1 <1	LCS-5	119%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53406-30	<0.5 <0.5	LCS-5	113%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	5 5 RPD: 0	LCS-5	117%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	50 46 RPD: 8	LCS-5	118%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	<1 1	LCS-5	115%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	30 21 RPD: 35	LCS-5	114%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53406-30	<0.1 <0.1	LCS-5	109%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	2 1 RPD: 67	LCS-5	118%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	<1 <1	LCS-5	116%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	<1 1	LCS-5	118%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	<1 <1	LCS-5	115%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	18 20 RPD: 11	LCS-5	112%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53406-30	11 10 RPD: 10	LCS-5	118%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	53406-30	180 200 RPD: 11	[NR]	[NR]
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	53406-30	68 57 RPD: 18	[NR]	[NR]
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			28/03/2011				
Date analysed	-			29/03/2011				
Moisture	%	0.1	Inorg-008	<0.1				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			28/03/2011	[NT]	[NT]	LCS-1	28/03/2011
Date analysed	-			30/03/2011	[NT]	[NT]	LCS-1	30/03/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	[NT]	[NT]	LCS-1	102%
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	LCS-1	114%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	[NT]	[NT]	LCS-1	106%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	[NT]	[NT]	LCS-1	94%

QUALITYCONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank				
Date analysed	-			[NT]				
QUALITYCONTROL Metals in Waters - Dissolved	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date digested	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Date analysed	-			28/03/2011	[NT]	[NT]	LCS-W1	28/03/2011
Arsenic - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	109%
Beryllium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Cadmium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	102%
Cobalt - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Chromium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	105%
Copper - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	106%
Mercury - Dissolved	mg/L	0.0004	Metals-021 CV-AAS	<0.0004	[NT]	[NT]	LCS-W1	124%
Manganese - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-W1	109%
Molybdenum - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	101%
Nickel - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	108%
Lead - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-W1	106%
Tin - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-W1	103%
Vanadium - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	105%
Zinc - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-W1	109%
QUALITYCONTROL TRH in Soil (C6-C9)	UNITS		Dup. Sm#		Duplicate Base + Duplicate + %RPD		Spike Sm#	Spike % Recovery
Date extracted	-		53406-52		28/03/2011 28/03/2011		53406-14	28/03/2011
Date analysed	-		53406-52		29/03/2011 29/03/2011		53406-14	29/03/2011
vTRHC ₆ - C ₉	mg/kg		53406-52		<25 <25		53406-14	72%
Surrogate aaa-Trifluorotoluene	%		53406-52		92 86 RPD: 7		53406-14	77%

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QUALITYCONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53406-52	28/03/2011 28/03/2011	53406-14	28/03/2011
Date analysed	-	53406-52	28/03/2011 28/03/2011	53406-14	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	53406-52	<50 <50	53406-14	92%
TRHC ₁₅ - C ₂₈	mg/kg	53406-52	<100 <100	53406-14	97%
TRHC ₂₉ - C ₃₆	mg/kg	53406-52	<100 <100	53406-14	89%
Surrogate o-Terphenyl	%	53406-52	99 99 RPD: 0	53406-14	100%
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53406-52	28/03/2011 28/03/2011	53406-14	28/03/2011
Date analysed	-	53406-52	28/03/2011 28/03/2011	53406-14	28/03/2011
Naphthalene	mg/kg	53406-52	<0.1 <0.1	53406-14	97%
Acenaphthylene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	53406-52	<0.1 <0.1	53406-14	106%
Phenanthrene	mg/kg	53406-52	<0.1 <0.1	53406-14	118%
Anthracene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	53406-52	<0.1 <0.1	53406-14	111%
Pyrene	mg/kg	53406-52	<0.1 <0.1	53406-14	104%
Benzo(a)anthracene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	53406-52	<0.1 <0.1	53406-14	110%
Benzo(b+k)fluoranthene	mg/kg	53406-52	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	53406-52	<0.05 <0.05	53406-14	108%
Indeno(1,2,3-c,d)pyrene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	53406-52	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	53406-52	87 90 RPD: 3	53406-14	76%

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QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	53406-52	28/03/2011 28/03/2011	LCS-6	28/03/2011
Date analysed	-	53406-52	28/03/2011 28/03/2011	LCS-6	28/03/2011
Arsenic	mg/kg	53406-52	43 41 RPD: 5	LCS-6	117%
Beryllium	mg/kg	53406-52	<1 1	LCS-6	122%
Cadmium	mg/kg	53406-52	<0.5 <0.5	LCS-6	113%
Chromium	mg/kg	53406-52	13 16 RPD: 21	LCS-6	118%
Copper	mg/kg	53406-52	43 52 RPD: 19	LCS-6	119%
Cobalt	mg/kg	53406-52	16 14 RPD: 13	LCS-6	117%
Lead	mg/kg	53406-52	20 19 RPD: 5	LCS-6	115%
Mercury	mg/kg	53406-52	<0.1 <0.1	LCS-6	105%
Manganese	mg/kg	53406-52	330 370 RPD: 11	LCS-6	120%
Molybdenum	mg/kg	53406-52	<1 1	LCS-6	117%
Nickel	mg/kg	53406-52	18 18 RPD: 0	LCS-6	119%
Tin	mg/kg	53406-52	<1 <1	LCS-6	116%
Vanadium	mg/kg	53406-52	46 38 RPD: 19	LCS-6	113%
Zinc	mg/kg	53406-52	61 61 RPD: 0	LCS-6	118%
Sulphur	mg/kg	[NT]	[NT]	LCS-6	114%
Phosphorus	mg/kg	[NT]	[NT]	LCS-6	106%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	53406-14	28/03/2011
Date analysed	-	[NT]	[NT]	53406-14	28/03/2011
Arsenic	mg/kg	[NT]	[NT]	53406-14	91%
Beryllium	mg/kg	[NT]	[NT]	53406-14	109%
Cadmium	mg/kg	[NT]	[NT]	53406-14	105%
Chromium	mg/kg	[NT]	[NT]	53406-14	110%
Copper	mg/kg	[NT]	[NT]	53406-14	113%
Cobalt	mg/kg	[NT]	[NT]	53406-14	107%
Lead	mg/kg	[NT]	[NT]	53406-14	99%
Mercury	mg/kg	[NT]	[NT]	53406-14	106%
Manganese	mg/kg	[NT]	[NT]	53406-14	97%
Molybdenum	mg/kg	[NT]	[NT]	53406-14	82%
Nickel	mg/kg	[NT]	[NT]	53406-14	107%
Tin	mg/kg	[NT]	[NT]	53406-14	97%
Vanadium	mg/kg	[NT]	[NT]	53406-14	103%
Zinc	mg/kg	[NT]	[NT]	53406-14	107%
Sulphur	mg/kg	[NT]	[NT]	53406-14	129%
Phosphorus	mg/kg	[NT]	[NT]	53406-14	70%

Report Comments:

Total Recoverable Hydrocarbons (Semi Volatile) in soil: The RPD for duplicate results is accepted due to the non homogenous nature of the sample/s.

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 30-40g of sample in it's own container.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield

Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test

PQL: Practical Quantitation Limit

NT: Not tested

NA: Test not required

RPD: Relative Percent Difference

NA: Test not required

<: Less than

>: Greater than

LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

Aileen Hie

From: Ellen.Swanson@ghd.com
Sent: Monday, 18 April 2011 02:32 PM
To: Aileen Hie
Subject: Additional analysis - 2120474, Pacific Brands

53406

Hi Aileen,

Could I please order the following additional analysis for some samples that we have on hold.

TCLP for Lead in sample TP40/0.5
TCLP for Nickel in samples TP35/0.1, HA34/0.15 and HA29/0.13

-24

Thanks.

Regards,

Ellen Swanson
Graduate Environmental Scientist

GHD

T: 61 2 9239 7068 | F: 61 2 9239 7199 | V: 217068 | E: ellen.swanson@ghd.com
Level 15 133 Castlereagh St Sydney NSW 2000 Australia | <http://www.ghd.com/>

[Water](#) | [Energy & Resources](#) | [Environment](#) | [Property & Buildings](#) | [Transportation](#)

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This e-mail has been scanned for viruses by MessageLabs.

EnviroLab Ref: 53406A

DJE: 281411

std 7/11.



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53406-A

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	Additional Testing on 1 Soil
Date samples received / completed instructions received	25/03/11 / 18/04/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data. Samples were analysed as received from the client. Results relate specifically to the samples as received. Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 28/04/11 / 20/04/11


Date of Preliminary Report: Not Issued

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Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:


Rhian Morgan
Reporting Supervisor

Metals in TCLP USEPA 1311		
Our Reference:	UNITS	53406-A-24
Your Reference	-----	TP35
Depth	-----	0.1
Date Sampled		24/03/2011
Type of sample		Soil
Date extracted	-	19/04/2011
Date analysed	-	19/04/2011
pH of soil for fluid# determ.	pH units	8.6
pH of soil for fluid # determ. (acid)	pH units	1.7
Extraction fluid used	-	1
pH of final Leachate	pH units	4.9
Nickel in TCLP	mg/L	0.04

MethodID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP).
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in TCLP USEPA1311						Base II Duplicate II %RPD		
Date extracted	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Date analysed	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Nickel in TCLP	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	89%

Report Comments:

Asbestos ID was analysed by Approved Identifier: Not applicable for this job
 Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

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Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

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Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Telephone: (02) 9239 7100

Fax: (02) 9239 7194

ABN 99 008 488 373

Project No. 2120474
 Project Name Phase 2 Environmental Site Assessment
 Project Manager Amy Dobson
 Contact Name Ellen Swanson
 Phone No. 04 32805099
 Fax No. 02 9239 7195
 Email amy.dobson@ghd.com
ellen.swanson@ghd.com

Sent to Lab: EnviroLab Services
 Address: 12 Ashley Street
CHATSWOOD NSW 2067
 Fax: 02 9910 6201

Attention: Aileen Hie
 Phone: 02 9910 6200

Date Required: standard TAT
 Date Submitted: 24/3/11
 Page 6 of 7

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
1	23/3/11	1	JAR						Hold											1= Metals (As, Sb ^{Mn} , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Sb , Zn)
2									✓	✓	✓	✓					✓			2=MAH
3									Hold											3=TPH
4									Hold											4= PAH
5									✓	✓	✓	✓								5= PCB
6									✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6=VOC & SVOC
7									Hold											7= Pesticides
8									✓	✓	✓	✓								8= Asbestos
9									✓	✓	✓	✓								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

EnviroLab
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200
 Job No: 53427
 Date received: 24/3 1200
 Time received:
 Received by:
 Tank: Cool/ambient
 Coding: leakback
 Security: Intact/Broken

RELINQUISHED BY				
Name	Organisation	Date	Time	Signed

RECEIVED BY				
Name	Organisation	Date	Time	Signed
		<u>24/3</u>		

RELINQUISHED BY				
Name	Organisation	Date	Time	Signed

RECEIVED BY				
Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

6/7



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia Telephone: (02) 9239 7100 Fax: (02) 9239 7194 ABN 39 008 486 373

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Sent to Lab: <u>Envirolab Services</u>	Date Required: <u>standard TAT</u>
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Address: <u>12 Ashley Street</u>	Date Submitted: <u>24/3/11</u>
Project Manager <u>Amy Dobson</u>	Email <u>amy.dobson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Page <u>7</u> of <u>7</u>
Contact Name <u>Ellen Swanson</u>	Email <u>ellen.swanson@ghd.com</u>	Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
10 TP19-0.5	23/3/11	1	Jar																					1= Metals (As, ^{MA} Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Sb , Zn)
11 TP18-0.5																								2=MAH
12 TP17-0.5																								3=TPH
13 TP16-0.5																								4= PAH
14 TP15-0.5																								5= PCB
15 TP15-1.0																								6=VOC & SVOC
16 TP14-0.1																								7= Pesticides
17 TP14-0.5																								8= Asbestos
18 TP13-0.1																								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
19 TP13-0.5																								10= NEPM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
							24/3		
RELINQUISHED BY					RECEIVED BY				

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53427

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference: **2120474, Phase 2**
No. of samples: 19 Soils
Date samples received / completed instructions received 25/03/11 / 25/03/11


Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

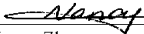
Report Details:

Date results requested by: / Issue Date: 1/04/11 / 1/04/11
Date of Preliminary Report: Not Issued
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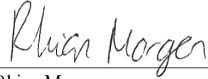
Results Approved By:

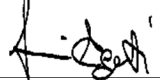


Jacinta Hurst
Laboratory Manager



Nancy Zhang
Chemist



Rhian Morgan
Reporting Supervisor


Giovanni Agosti
Technical Manager



Matt Mansfield
Approved Signatory

Envirolab Reference: 53427
Revision No: R 00



VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	96	98	97	96
Surrogate aaa-Trifluorotoluene	%	85	87	86	96
Surrogate Toluene-d8	%	101	101	101	101
Surrogate 4-Bromofluorobenzene	%	100	100	101	99

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-2 TP12 0.5 23/03/2011 Soil	53427-6 TP10 0.1 23/03/2011 Soil	53427-9 TP07 0.5 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-12 TP17 0.5 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	97	96	97	98	97
Surrogate aaa-Trifluorotoluene	%	93	85	100	87	102
Surrogate Toluene-d8	%	102	101	102	101	101
Surrogate 4-Bromofluorobenzene	%	100	100	99	100	99

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-14 TP15 0.5 23/03/2011 Soil
Date extracted	-	28/03/2011
Date analysed	-	29/03/2011
Benzene	mg/kg	<0.5
Toluene	mg/kg	<0.5
Ethylbenzene	mg/kg	<1
m+p-xylene	mg/kg	<2
o-Xylene	mg/kg	<1
styrene	mg/kg	<1
isopropylbenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
n-butyl benzene	mg/kg	<1
<i>Surrogate</i> Dibromofluorometha	%	97
<i>Surrogate</i> aaa-Trifluorotoluene	%	86
<i>Surrogate</i> Toluene-d ₈	%	101
<i>Surrogate</i> 4-Bromofluorobenzene	%	101

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53427-2	53427-5	53427-6	53427-8	53427-9
Your Reference	-----	TP12	TP11	TP10	TP08	TP07
Depth	-----	0.5	0.5	0.1	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	93	96	85	96	100

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53427-10	53427-11	53427-12	53427-13	53427-14
Your Reference	-----	TP19	TP18	TP17	TP16	TP15
Depth	-----	0.5	0.5	0.5	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	87	98	102	99	86

TRH in Soil (C6-C9)			
Our Reference:	UNITS	53427-16	53427-19
Your Reference	-----	TP14	TP13
Depth	-----	0.1	0.5
Date Sampled		23/03/2011	23/03/2011
Type of sample		Soil	Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25
Surrogate aaa-Trifluorotoluene	%	96	96

sTRH in Soil (C10-C36)	UNITS	53427-2	53427-5	53427-6	53427-8	53427-9
Our Reference:	-----	TP12	TP11	TP10	TP08	TP07
Your Reference	-----	0.5	0.5	0.1	0.5	0.5
Depth		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	79	76	77	80	76

sTRH in Soil (C10-C36)	UNITS	53427-10	53427-11	53427-12	53427-13	53427-14
Our Reference:	-----	TP19	TP18	TP17	TP16	TP15
Your Reference	-----	0.5	0.5	0.5	0.5	0.5
Depth		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Date Sampled		Soil	Soil	Soil	Soil	Soil
Type of sample						
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	78	78	78	76	78

sTRH in Soil (C10-C36)	UNITS	53427-16	53427-19
Our Reference:	-----	TP14	TP13
Your Reference	-----	0.1	0.5
Depth		23/03/2011	23/03/2011
Date Sampled		Soil	Soil
Type of sample			
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	140	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100
Surrogate o-Terphenyl	%	93	87

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-2 TP12 0.5 23/03/2011 Soil	53427-5 TP11 0.5 23/03/2011 Soil	53427-6 TP10 0.1 23/03/2011 Soil	53427-8 TP08 0.5 23/03/2011 Soil	53427-9 TP07 0.5 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	75	76	75	74	78

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-10 TP19 0.5 23/03/2011 Soil	53427-11 TP18 0.5 23/03/2011 Soil	53427-12 TP17 0.5 23/03/2011 Soil	53427-13 TP16 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	76	75	75	79	83

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-16 TP14 0.1 23/03/2011 Soil	53427-19 TP13 0.5 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	85	89

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	31/03/2011	31/03/2011	31/03/2011	31/03/2011
Phenol	mg/kg	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1
2-acetylamino fluorene	mg/kg	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	107	124	103	138
Surrogate Phenol-d6	%	82	105	89	134
Surrogate Nitrobenzene-d5	%	95	115	95	133
Surrogate 2-fluorobiphenyl	%	82	96	87	120
Surrogate 2,4,6-Tribromophenol	%	60	69	67	100
Surrogate p-Terphenyl-d14	%	82	86	91	107

Speciated Phenols in Soil	UNITS	53427-16
Our Reference:	-----	TP14
Your Reference	-----	0.1
Depth		23/03/2011
Date Sampled		Soil
Type of sample		
Date extracted	-	28/03/2011
Date analysed	-	31/03/2011
Phenol	mg/kg	<1
2-Chlorophenol	mg/kg	<1
2-Methylphenol	mg/kg	<1
3/4-Methylphenol	mg/kg	<2
2-Nitrophenol	mg/kg	<1
2,4-Dimethylphenol	mg/kg	<1
2,4-Dichlorophenol	mg/kg	<1
2,6-dichlorophenol	mg/kg	<1
2,4,5-trichlorophenol	mg/kg	<1
2,4,6-trichlorophenol	mg/kg	<1
2,4-dinitrophenol	mg/kg	<10
4-nitrophenol	mg/kg	<10
2,3,4,6-tetrachlorophenol	mg/kg	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10
pentachlorophenol	mg/kg	<10
Surrogate 2-fluorophenol	%	138
Surrogate Phenol-d6	%	134
Surrogate 2,4,6-Tribromophenol	%	107
Surrogate p-Terphenyl-d14	%	99

Organochlorine Pesticides in soil		53427-6	53427-16	53427-18
Our Reference:	UNITS	TP10	TP14	TP13
Your Reference	-----			
Depth	-----	0.1	0.1	0.1
Date Sampled		23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1
Surrogate TCLMX	%	96	92	101

Organophosphorus Pesticides			
Our Reference:	UNITS	53427-6	53427-18
Your Reference	-----	TP10	TP13
Depth	-----	0.1	0.1
Date Sampled		23/03/2011	23/03/2011
Type of sample		Soil	Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011
Diazinon	mg/kg	<0.1	<0.1
Dimethoate	mg/kg	<0.1	<0.1
Chlorpyrifos-methyl	mg/kg	<0.1	<0.1
Ronnel	mg/kg	<0.1	<0.1
Chlorpyrifos	mg/kg	<0.1	<0.1
Fenitrothion	mg/kg	<0.1	<0.1
Bromophos-ethyl	mg/kg	<0.1	<0.1
Ethion	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	101

PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-6 TP10 0.1 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	96	92

Acid Extractable metals in soil						
Our Reference:	UNITS	53427-2	53427-5	53427-6	53427-8	53427-9
Your Reference	-----	TP12	TP11	TP10	TP08	TP07
Depth	-----	0.5	0.5	0.1	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	7	7	6	10	<4
Beryllium	mg/kg	<1	<1	2	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	19	14	55	22	8
Cobalt	mg/kg	3	2	28	4	1
Lead	mg/kg	16	13	44	14	8
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	5	1	32	6	<1
Tin	mg/kg	1	1	1	1	<1
Zinc	mg/kg	16	9	140	38	5
Chromium	mg/kg	17	11	12	9	5
Manganese	mg/kg	14	6	390	70	15
Vanadium	mg/kg	61	34	35	26	14

Acid Extractable metals in soil						
Our Reference:	UNITS	53427-10	53427-11	53427-12	53427-13	53427-14
Your Reference	-----	TP19	TP18	TP17	TP16	TP15
Depth	-----	0.5	0.5	0.5	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	9	<4	8	11	10
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	38	17	22	21	30
Cobalt	mg/kg	33	3	3	7	18
Lead	mg/kg	29	8	14	13	18
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	13	2	3	5	15
Tin	mg/kg	1	1	<1	1	<1
Zinc	mg/kg	240	24	20	67	140
Chromium	mg/kg	8	5	6	6	8
Manganese	mg/kg	640	48	92	230	280
Vanadium	mg/kg	21	13	19	17	22

Acid Extractable metals in soil	UNITS	53427-16	53427-17	53427-19
Our Reference:	-----	TP14	TP14	TP13
Your Reference	-----	0.1	0.5	0.5
Depth		23/03/2011	23/03/2011	23/03/2011
Date Sampled		Soil	Soil	Soil
Type of sample				
Date digested	-	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	5	16	9
Beryllium	mg/kg	2	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5
Copper	mg/kg	27	22	9
Cobalt	mg/kg	32	2	4
Lead	mg/kg	43	12	14
Mercury	mg/kg	0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1
Nickel	mg/kg	26	1	4
Tin	mg/kg	3	1	1
Zinc	mg/kg	140	10	11
Chromium	mg/kg	7	14	20
Manganese	mg/kg	1,900	3	62
Vanadium	mg/kg	34	55	45
Sulphur	mg/kg	260	[NA]	[NA]
Phosphorus	mg/kg	660	[NA]	[NA]

Miscellaneous Inorg - soil		
Our Reference:	UNITS	53427-16
Your Reference	-----	TP14
Depth	-----	0.1
Date Sampled		23/03/2011
Type of sample		Soil
Date prepared	-	28/03/2011
Date analysed	-	30/03/2011
Total Cyanide	mg/kg	<0.5
Nitrate as N in soil	mg/kg	<0.5
Sulphate, SO ₄ 1:5 soil:water	mg/kg	15
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1

Moisture						
Our Reference:	UNITS	53427-2	53427-5	53427-6	53427-8	53427-9
Your Reference	-----	TP12	TP11	TP10	TP08	TP07
Depth	-----	0.5	0.5	0.1	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	15	15	15	12	12

Moisture						
Our Reference:	UNITS	53427-10	53427-11	53427-12	53427-13	53427-14
Your Reference	-----	TP19	TP18	TP17	TP16	TP15
Depth	-----	0.5	0.5	0.5	0.5	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	16	11	12	14	9.9

Moisture					
Our Reference:	UNITS	53427-16	53427-17	53427-18	53427-19
Your Reference	-----	TP14	TP14	TP13	TP13
Depth	-----	0.1	0.5	0.1	0.5
Date Sampled		23/03/2011	23/03/2011	23/03/2011	23/03/2011
Type of sample		Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	17	15	8.4	9.5

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-2 TP12 0.5 23/03/2011 Soil	53427-10 TP19 0.5 23/03/2011 Soil	53427-13 TP16 0.5 23/03/2011 Soil	53427-14 TP15 0.5 23/03/2011 Soil	53427-16 TP14 0.1 23/03/2011 Soil
Date analysed	-	30/3/2011	30/3/2011	30/3/2011	30/3/2011	30/3/2011
Sample mass tested	g	Approx 35g	Approx 35g	Approx 35g	Approx 35g	Approx 35g
Sample Description	-	Soil	Soil	Soil	Soil	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53427-19 TP13 0.5 23/03/2011 Soil
Date analysed	-	30/3/2011
Sample mass tested	g	Approx 35g
Sample Description	-	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-008	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-4	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-4	29/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	83%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	97%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	92%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	85%
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	78%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	93%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	89%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-4	83%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	100	[NT]	[NT]	LCS-4	97%
Surrogate aaa-Trifluorotoluene	%		Org-014	117	[NT]	[NT]	LCS-4	106%
Surrogate Toluene-d8	%		Org-014	102	[NT]	[NT]	LCS-4	101%
Surrogate 4-Bromofluorobenzene	%		Org-014	101	[NT]	[NT]	LCS-4	102%

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
Date analysed	-			29/03/2011	53427-2	29/03/2011 29/03/2011	LCS-4	29/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	53427-2	<0.5 <0.5	LCS-4	89%
Toluene	mg/kg	0.5	Org-014	<0.5	53427-2	<0.5 <0.5	LCS-4	99%
Ethylbenzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	LCS-4	105%
m+p-xylene	mg/kg	2	Org-014	<2	53427-2	<2 <2	LCS-4	110%
o-Xylene	mg/kg	1	Org-014	<1	53427-2	<1 <1	LCS-4	113%
styrene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53427-2	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	100	53427-2	97 97 RPD: 0	LCS-4	92%
Surrogate aaa-Trifluorotoluene	%		Org-014	117	53427-2	93 93 RPD: 0	LCS-4	98%
Surrogate Toluene-d8	%		Org-014	102	53427-2	102 101 RPD: 1	LCS-4	101%
Surrogate 4-Bromofluorobenzene	%		Org-014	101	53427-2	100 100 RPD: 0	LCS-4	99%

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
Date analysed	-			29/03/2011	53427-2	29/03/2011 29/03/2011	LCS-4	29/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	53427-2	<25 <25	LCS-4	103%
Surrogate aaa-Trifluorotoluene	%		Org-016	117	53427-2	93 93 RPD: 0	LCS-4	98%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
Date analysed	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53427-2	<50 <50	LCS-4	68%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53427-2	<100 <100	LCS-4	78%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53427-2	<100 <100	LCS-4	67%
Surrogate o-Terphenyl	%		Org-003	82	53427-2	79 76 RPD: 4	LCS-4	81%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
Date analysed	-			28/03/2011	53427-2	28/03/2011 28/03/2011	LCS-4	28/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	90%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	89%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	92%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	86%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	90%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	LCS-4	99%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	53427-2	<0.2 <0.2	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	53427-2	<0.05 <0.05	LCS-4	86%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	53427-2	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	80	53427-2	75 74 RPD: 1	LCS-4	88%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			31/03/2011	[NT]	[NT]	LCS-3	31/03/2011
Phenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	117%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	110%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	121%
2-Methylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	[NT]	[NT]	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
2-Chloronaphthalene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	72%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	87%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	LCS-3	60%
Dibenzofuran	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	71%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	76%
butylbenzylphthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
acetophenone	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
3-methylcholanthrene	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	108%
Heptachlor Epoxide	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	110%
Endrin	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Methoxychlor	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	97	[NT]	[NT]	LCS-3	128%
<i>Surrogate</i> Phenol-d ₆	%		Org-012	87	[NT]	[NT]	LCS-3	115%
<i>Surrogate</i> Nitrobenzene-d ₅	%		Org-012	91	[NT]	[NT]	LCS-3	116%
<i>Surrogate</i> 2-fluorobiphenyl	%		Org-012	90	[NT]	[NT]	LCS-3	87%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	60	[NT]	[NT]	LCS-3	62%
<i>Surrogate</i> p-Terphenyl-d ₁₄	%		Org-012	83	[NT]	[NT]	LCS-3	82%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			31/03/2011	[NT]	[NT]	LCS-3	31/03/2011
Phenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	117%
2-Chlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	110%
3/4-Methylphenol	mg/kg	2	Org-012	<2	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	LCS-3	60%
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	97	[NT]	[NT]	LCS-3	128%
<i>Surrogate</i> Phenol-d ₆	%		Org-012	87	[NT]	[NT]	LCS-3	115%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	60	[NT]	[NT]	LCS-3	62%
<i>Surrogate</i> p-Terphenyl-d ₁₄	%		Org-012	83	[NT]	[NT]	LCS-3	82%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-3	29/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	98%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	81%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	97%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	92%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	99%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	84%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	98%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	94%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	85%
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-3	94%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-005	101	[NT]	[NT]	LCS-3	101%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organophosphorus Pesticides						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-3	29/03/2011
Diazinon	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Dimethoate	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos-methyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ronnel	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Chlorpyrifos	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	90%
Fenitrothion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	88%
Bromophos-ethyl	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	[NR]	[NR]
Ethion	mg/kg	0.1	Org-008	<0.1	[NT]	[NT]	LCS-3	80%
Surrogate TCLMX	%		Org-008	100	[NT]	[NT]	LCS-3	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			29/03/2011	[NT]	[NT]	LCS-3	29/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-3	122%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	100	[NT]	[NT]	LCS-3	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			29/03/2011	53427-2	29/03/2011 29/03/2011	LCS-2	29/03/2011
Date analysed	-			29/03/2011	53427-2	29/03/2011 29/03/2011	LCS-2	29/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53427-2	7 7 RPD: 0	LCS-2	106%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	<1 <1	LCS-2	101%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53427-2	<0.5 <0.5	LCS-2	108%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	19 17 RPD: 11	LCS-2	106%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	3 3 RPD: 0	LCS-2	104%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	16 16 RPD: 0	LCS-2	104%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53427-2	<0.1 <0.1	LCS-2	114%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	<1 <1	LCS-2	104%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	5 5 RPD: 0	LCS-2	107%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	1 1 RPD: 0	LCS-2	104%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	16 11 RPD: 37	LCS-2	105%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	17 15 RPD: 12	LCS-2	106%
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	14 18 RPD: 25	LCS-2	110%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53427-2	61 46 RPD: 28	LCS-2	104%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NR]	[NR]
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	[NR]	[NR]
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			28/03/2011	[NT]	[NT]	LCS-1	28/03/2011
Date analysed	-			30/03/2011	[NT]	[NT]	LCS-1	30/03/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	[NT]	[NT]	LCS-1	102%
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	[NT]	[NT]	LCS-1	114%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	[NT]	[NT]	LCS-1	106%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	[NT]	[NT]	LCS-1	94%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			28/03/2011				
Date analysed	-			29/03/2011				
Moisture	%	0.1	Inorg-008	<0.1				

QUALITYCONTROL Asbestos ID - soils	UNITS	PQL	METHOD	Blank		
Date analysed	-			[NT]		
QUALITYCONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery	
Date extracted	-	[NT]	[NT]	53427-6	28/03/2011	
Date analysed	-	[NT]	[NT]	53427-6	29/03/2011	
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]	
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]	
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,1-dichloroethane	mg/kg	[NT]	[NT]	53427-6	70%	
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]	
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
chloroform	mg/kg	[NT]	[NT]	53427-6	80%	
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,2-dichloroethane	mg/kg	[NT]	[NT]	53427-6	79%	
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	53427-6	70%	
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]	
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]	
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]	
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]	
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]	
trichloroethene	mg/kg	[NT]	[NT]	53427-6	65%	
bromodichloromethane	mg/kg	[NT]	[NT]	53427-6	74%	
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]	
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]	
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]	
dibromochloromethane	mg/kg	[NT]	[NT]	53427-6	68%	
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
tetrachloroethene	mg/kg	[NT]	[NT]	53427-6	71%	
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]	
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]	
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]	
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]	

QUALITYCONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
e					
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%	[NT]	[NT]	53427-6	95%
Surrogate aaa-Trifluorotoluene	%	[NT]	[NT]	53427-6	89%
Surrogate Toluene-d8	%	[NT]	[NT]	53427-6	101%
Surrogate 4-Bromofluorobenzene	%	[NT]	[NT]	53427-6	100%

Client Reference: 2120474, Phase 2

QUALITYCONTROL TRH in Soil (C6-C9)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53427-11	28/03/2011 28/03/2011	53427-6	28/03/2011
Date analysed	-	53427-11	29/03/2011 29/03/2011	53427-6	29/03/2011
vTRHC ₆ - C ₉	mg/kg	53427-11	<25 <25	53427-6	98%
Surrogate aaa-Trifluorotoluene	%	53427-11	98 95 RPD: 3	53427-6	100%
QUALITYCONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53427-11	28/03/2011 28/03/2011	53427-6	28/03/2011
Date analysed	-	53427-11	28/03/2011 28/03/2011	53427-6	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	53427-11	<50 <50	53427-6	93%
TRHC ₁₅ - C ₂₈	mg/kg	53427-11	<100 <100	53427-6	99%
TRHC ₂₉ - C ₃₆	mg/kg	53427-11	<100 <100	53427-6	84%
Surrogate o-Terphenyl	%	53427-11	78 77 RPD: 1	53427-6	82%
QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53427-11	28/03/2011 28/03/2011	53427-6	28/03/2011
Date analysed	-	53427-11	28/03/2011 28/03/2011	53427-6	28/03/2011
Naphthalene	mg/kg	53427-11	<0.1 <0.1	53427-6	85%
Acenaphthylene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	53427-11	<0.1 <0.1	53427-6	84%
Phenanthrene	mg/kg	53427-11	<0.1 <0.1	53427-6	87%
Anthracene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	53427-11	<0.1 <0.1	53427-6	84%
Pyrene	mg/kg	53427-11	<0.1 <0.1	53427-6	87%
Benzo(a)anthracene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	53427-11	<0.1 <0.1	53427-6	93%
Benzo(b+k)fluoranthene	mg/kg	53427-11	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	53427-11	<0.05 <0.05	53427-6	85%
Indeno(1,2,3-c,d)pyrene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	53427-11	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d ₁₄	%	53427-11	75 82 RPD: 9	53427-6	75%

Client Reference: 2120474, Phase 2

QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	53427-11	29/03/2011 29/03/2011	53427-6	29/03/2011
Date analysed	-	53427-11	29/03/2011 29/03/2011	53427-6	29/03/2011
Arsenic	mg/kg	53427-11	<4 6	53427-6	97%
Beryllium	mg/kg	53427-11	<1 <1	53427-6	85%
Cadmium	mg/kg	53427-11	<0.5 <0.5	53427-6	92%
Copper	mg/kg	53427-11	17 24 RPD: 34	53427-6	109%
Cobalt	mg/kg	53427-11	3 3 RPD: 0	53427-6	95%
Lead	mg/kg	53427-11	8 10 RPD: 22	53427-6	91%
Mercury	mg/kg	53427-11	<0.1 <0.1	53427-6	116%
Molybdenum	mg/kg	53427-11	<1 <1	53427-6	91%
Nickel	mg/kg	53427-11	2 3 RPD: 40	53427-6	97%
Tin	mg/kg	53427-11	1 <1	53427-6	88%
Zinc	mg/kg	53427-11	24 32 RPD: 29	53427-6	99%
Chromium	mg/kg	53427-11	5 7 RPD: 33	53427-6	96%
Manganese	mg/kg	53427-11	48 47 RPD: 2	53427-6	128%
Vanadium	mg/kg	53427-11	13 19 RPD: 38	53427-6	102%
Sulphur	mg/kg	[NT]	[NT]	[NR]	[NR]
Phosphorus	mg/kg	[NT]	[NT]	[NR]	[NR]

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 30-40g of sample in it's own container.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield
Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batched of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No: <u>2120474</u>	Phone No: <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194
Project Name: <u>Phase 2 Environmental Site Assessment</u>	Fax No: <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>	ABN 59 008 488 373
Project Manager: <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	
Contact Name: <u>Ellen Swanson</u>	Email: <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Required: <u>standard/TAT</u>
		Fax: <u>02 9910 6201</u>	Date Submitted: <u>25/3/11</u>
			Page <u>1</u> of <u>4</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type/Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
1 TP33-0.5	25/3/11	1	Jar		✓	✓			✓			✓	✓							1= Metals (As, ^{Mn} Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Zn)
2 TP33-1.0									✓								✓			V
3 TP33-2.0									Hold											2=MAH
4 TP33-2.4									Hold											3=TPH
5 TP39-0.5																				4= PAH
6 TP39-1.0									✓	✓	✓	✓					✓			5= PCB
7 TP39-1.9									✓		✓						✓			6=VOC & SVOC
8 TP39-2.8									Hold											7= Pesticides
9 TP34-0.2									✓											8= Asbestos
10 TP34-0.5									Hold											9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

EnviroLab Services
 12 Ashley St
 Chatswood NSW 2067
 Ph: 9910 6200
 Job No: 53456
 Date received: 25-3-11
 Time received: 15:30
 Received by: ES
 Temp: CA Ambient
 Cooling: Icepack
 Security: Intact Broken/None

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	14:00	<i>[Signature]</i>	E. Sheel	ELS	25-3-11	25:30	<i>[Signature]</i>
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. <u>2120474</u> Project Name <u>Phase 2 Environmental Site Assessment</u> Project Manager <u>Amy Dobson</u> Contact Name <u>Ellen Swanson</u>	Phone No. <u>04 32805099</u> Fax No. <u>02 9239 7195</u> Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	Telephone: (02) 9239 7100 Sent to Lab: <u>EnviroLab Services</u> Address: <u>12 Ashley Street</u> <u>CHATSWOOD NSW 2067</u> Fax: <u>02 9910 6201</u> Attention: <u>Aileen Hie</u> Phone: <u>02 9910 6200</u>
		Date Required: <u>standard TAT</u> Date Submitted: <u>25/3/11</u> Page <u>2</u> of <u>4</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
11	25/3/11	1	Jar	✓	✓				✓		✓	✓								1= Metals (As, Co , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Sb , Zn)
12									Hold											✓
13									Hold											2=MAH
14											✓	✓	✓							3=TPH
15										✓	✓	✓	✓							4= PAH
16										✓		✓	✓							5= PCB
17																				6=VOC & SVOC
18																				7= Pesticides
19																				8= Asbestos
20										✓		✓	✓							9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
											✓									10= NEPM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	1400	<i>AT</i>	E. Shorb	ELS	25-3-11	15130	<i>E</i>
RELINQUISHED BY					RECEIVED BY				

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GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>	ASB 39 008 488 373
Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Required: <u>standard TAT</u>
		Fax: <u>02 9910 6201</u>	Date Submitted: <u>25/3/11</u>
		Phone: <u>02 9910 6200</u>	Page <u>3</u> of <u>4</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS	
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10		
21 HA40_03	25/3/11	1	Jar	✓	✓				✓	✓	✓									1= Metals (As, ^{Mn} Cr, Pb Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Zn , Zn) ✓
22 HA40_05									✓	✓	✓									2=MAH
23 HA40_09									✓	✓	✓	✓								3=TPH
24 HA33_0.1									✓	✓	✓	✓								4= PAH
25 HA33_0.4									✓		✓									5= PCB
26 HA33_0.7									Hold											6=VOC & SVOC
27 HA44_0.27																				7= Pesticides
28 HA44_0.35									✓											8= Asbestos
29 HA26_0.45																				9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn) ✓
QA06									✓		✓									Please forward to ALS for analysis, 10 = NEPM Screen

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	1400	[Signature]	E. Short	EES	25/3/11	15:30	[Signature]
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

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GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

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ABN 39 008 488 373

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Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>	
Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Attention: <u>Aileen Hie</u>
		Fax: <u>02 9910 6201</u>	Phone: <u>02 9910 6200</u>
			Date Required: <u>standard TAT</u>
			Date Submitted: <u>25/3/11</u>
			Page <u>4</u> of <u>4</u>

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
30 QA07	25/3/11	1	Jar		✓	✓			✓		✓	✓												1= Metals (As, ^{Hg} Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, ^{Zn} Zn)
31 QA08					✓	✓			✓	✓	✓	✓												2=MAH
32 QA09					✓	✓			✓		✓	✓												3=TPH
33 RB04			Plastic	✓		✓	✓		✓	✓	✓	✓												4= PAH
34 Trip Blank A			Jar		✓	✓					✓													5= PCB
																								6=VOC & SVOC
																								7= Pesticides
																								8= Asbestos
																								9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	1400	[Signature]	E. Shorck	ELS	25-3-11	15:30	[Signature]
RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53456

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference: **2120474, Phase 2**
No. of samples: 33 Soils, 1 Water
Date samples received / completed instructions received 25/03/11 / 25/03/11


Analysis Details:

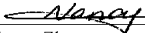
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.


Report Details:


Date results requested by: / Issue Date: 1/04/11 / 1/04/11
Date of Preliminary Report: Not Issued
NATA accreditation number 2901. This document shall not be reproduced except in full.
This document is issued in accordance with NATA's accreditation requirements.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:



Jacinta Hurst
Laboratory Manager


Nancy Zhang
Chemist


Rhian Morgan
Reporting Supervisor


Nick Sarlamis
Inorganics Supervisor


Matt Mansfield
Approved Signatory


Jeremy Faircloth
Chemist

Envirolab Reference: 53456
Revision No: R 00



VOCs in soil						
Our Reference:	UNITS	53456-5	53456-17	53456-18	53456-23	53456-24
Your Reference	-----	TP39	TP40	TP40	HA40	HA33
Depth	-----	0.5	0.5	1.0	0.9	0.1
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1	<1	<1	<1
Chloromethane	mg/kg	<1	<1	<1	<1	<1
Vinyl Chloride	mg/kg	<1	<1	<1	<1	<1
Bromomethane	mg/kg	<1	<1	<1	<1	<1
Chloroethane	mg/kg	<1	<1	<1	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1	<1	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1	<1	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
1,1-dichloroethane	mg/kg	<1	<1	<1	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1	<1	<1	<1
bromochloromethane	mg/kg	<1	<1	<1	<1	<1
chloroform	mg/kg	<1	<1	<1	<1	<1
2,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1	<1	<1	<1
1,1-dichloropropene	mg/kg	<1	<1	<1	<1	<1
Cyclohexane	mg/kg	<1	<1	<1	<1	<1
carbon tetrachloride	mg/kg	<1	<1	<1	<1	<1
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
dibromomethane	mg/kg	<1	<1	<1	<1	<1
1,2-dichloropropane	mg/kg	<1	<1	<1	<1	<1
trichloroethene	mg/kg	<1	<1	<1	<1	<1
bromodichloromethane	mg/kg	<1	<1	<1	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1	<1	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1	<1	<1	<1
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1	<1	<1	<1
dibromochloromethane	mg/kg	<1	<1	<1	<1	<1
1,2-dibromoethane	mg/kg	<1	<1	<1	<1	<1
tetrachloroethene	mg/kg	<1	<1	<1	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
chlorobenzene	mg/kg	<1	<1	<1	<1	<1
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
bromoform	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
styrene	mg/kg	<1	<1	<1	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-5 TP39 0.5 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil
1,1,2,2-tetrachloroethane	mg/kg	<1	<1	<1	<1	<1
o-Xylene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
bromobenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
2-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
4-chlorotoluene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1	<1	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	99	97	99	98	97
Surrogate aaa-Trifluorotoluene	%	89	94	95	99	88
Surrogate Toluene-d8	%	101	102	102	101	101
Surrogate 4-Bromofluorobenzene	%	102	100	101	100	101

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
Dichlorodifluoromethane	mg/kg	<1	<1
Chloromethane	mg/kg	<1	<1
Vinyl Chloride	mg/kg	<1	<1
Bromomethane	mg/kg	<1	<1
Chloroethane	mg/kg	<1	<1
Trichlorofluoromethane	mg/kg	<1	<1
1,1-Dichloroethene	mg/kg	<1	<1
trans-1,2-dichloroethene	mg/kg	<1	<1
1,1-dichloroethane	mg/kg	<1	<1
cis-1,2-dichloroethene	mg/kg	<1	<1
bromochloromethane	mg/kg	<1	<1
chloroform	mg/kg	<1	<1
2,2-dichloropropane	mg/kg	<1	<1
1,2-dichloroethane	mg/kg	<1	<1
1,1,1-trichloroethane	mg/kg	<1	<1
1,1-dichloropropene	mg/kg	<1	<1
Cyclohexane	mg/kg	<1	<1
carbon tetrachloride	mg/kg	<1	<1
Benzene	mg/kg	<0.5	<0.5
dibromomethane	mg/kg	<1	<1
1,2-dichloropropane	mg/kg	<1	<1
trichloroethene	mg/kg	<1	<1
bromodichloromethane	mg/kg	<1	<1
trans-1,3-dichloropropene	mg/kg	<1	<1
cis-1,3-dichloropropene	mg/kg	<1	<1
1,1,2-trichloroethane	mg/kg	<1	<1
Toluene	mg/kg	<0.5	<0.5
1,3-dichloropropane	mg/kg	<1	<1
dibromochloromethane	mg/kg	<1	<1
1,2-dibromoethane	mg/kg	<1	<1
tetrachloroethene	mg/kg	<1	<1
1,1,1,2-tetrachloroethane	mg/kg	<1	<1
chlorobenzene	mg/kg	<1	<1
Ethylbenzene	mg/kg	<1	<1
bromoform	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
styrene	mg/kg	<1	<1
1,1,2,2-tetrachloroethane	mg/kg	<1	<1

VOCs in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
o-Xylene	mg/kg	<1	<1
1,2,3-trichloropropane	mg/kg	<1	<1
isopropylbenzene	mg/kg	<1	<1
bromobenzene	mg/kg	<1	<1
n-propyl benzene	mg/kg	<1	<1
2-chlorotoluene	mg/kg	<1	<1
4-chlorotoluene	mg/kg	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1
tert-butyl benzene	mg/kg	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1
1,3-dichlorobenzene	mg/kg	<1	<1
sec-butyl benzene	mg/kg	<1	<1
1,4-dichlorobenzene	mg/kg	<1	<1
4-isopropyl toluene	mg/kg	<1	<1
1,2-dichlorobenzene	mg/kg	<1	<1
n-butyl benzene	mg/kg	<1	<1
1,2-dibromo-3-chloropropane	mg/kg	<1	<1
1,2,4-trichlorobenzene	mg/kg	<1	<1
hexachlorobutadiene	mg/kg	<1	<1
1,2,3-trichlorobenzene	mg/kg	<1	<1
Surrogate Dibromofluorometha	%	97	97
Surrogate aaa-Trifluorotoluene	%	88	93
Surrogate Toluene-d8	%	101	101
Surrogate 4-Bromofluorobenzene	%	100	101

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-6 TP39 1.0 25/03/2011 Soil	53456-15 TP38 1.0 25/03/2011 Soil	53456-20 HA40 0.1 25/03/2011 Soil	53456-21 HA40 0.3 25/03/2011 Soil	53456-22 HA40 0.5 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	99	98	99	98	97
Surrogate aaa-Trifluorotoluene	%	96	87	92	97	89
Surrogate Toluene-d8	%	102	101	101	101	102
Surrogate 4-Bromofluorobenzene	%	100	100	100	102	100

MAH's in soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil	53456-31 QA08 - 25/03/2011 Soil	53456-32 QA10 - 25/03/2011 Soil	53456-34 TripBlank - 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Benzene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1	<1	<1	<1
m+p-xylene	mg/kg	<2	<2	<2	<2	<2
o-Xylene	mg/kg	<1	<1	<1	<1	<1
styrene	mg/kg	<1	<1	<1	<1	<1
isopropylbenzene	mg/kg	<1	<1	<1	<1	<1
n-propyl benzene	mg/kg	<1	<1	<1	<1	<1
1,3,5-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
tert-butyl benzene	mg/kg	<1	<1	<1	<1	<1
1,2,4-trimethyl benzene	mg/kg	<1	<1	<1	<1	<1
sec-butyl benzene	mg/kg	<1	<1	<1	<1	<1
4-isopropyl toluene	mg/kg	<1	<1	<1	<1	<1
n-butyl benzene	mg/kg	<1	<1	<1	<1	<1
Surrogate Dibromofluorometha	%	98	97	95	96	96
Surrogate aaa-Trifluorotoluene	%	99	88	101	92	88
Surrogate Toluene-d8	%	101	101	102	100	101
Surrogate 4-Bromofluorobenzene	%	100	101	100	101	100

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53456-1	53456-5	53456-6	53456-7	53456-11
Your Reference	-----	TP33	TP39	TP39	TP39	TP34
Depth	-----	0.5	0.5	1.0	1.9	1.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	77	89	96	88	85

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53456-14	53456-15	53456-16	53456-17	53456-18
Your Reference	-----	TP38	TP38	TP38	TP40	TP40
Depth	-----	0.5	1.0	2.0	0.5	1.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	90	87	90	94	95

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53456-19	53456-20	53456-21	53456-22	53456-23
Your Reference	-----	TP40	HA40	HA40	HA40	HA40
Depth	-----	2.0	0.1	0.3	0.5	0.9
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	87	92	97	89	99

TRH in Soil (C6-C9)						
Our Reference:	UNITS	53456-24	53456-25	53456-27	53456-29	53456-30
Your Reference	-----	HA33	HA33	HA44	HA26	QA07
Depth	-----	0.1	0.4	0.27	0.45	-
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25	<25	<25	<25
Surrogate aaa-Trifluorotoluene	%	88	95	88	93	94

TRH in Soil (C6-C9)			
Our Reference:	UNITS	53456-31	53456-32
Your Reference	-----	QA08	QA10
Depth	-----	-	-
Date Sampled		25/03/2011	25/03/2011
Type of sample		Soil	Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
vTRHC ₆ - C ₉	mg/kg	<25	<25
Surrogate aaa-Trifluorotoluene	%	101	92

sTRH in Soil (C10-C36)	UNITS	53456-1	53456-5	53456-6	53456-7	53456-11
Our Reference:		53456-1	53456-5	53456-6	53456-7	53456-11
Your Reference	-----	TP33	TP39	TP39	TP39	TP34
Depth	-----	0.5	0.5	1.0	1.9	1.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	91	89	88	86	89

sTRH in Soil (C10-C36)	UNITS	53456-14	53456-15	53456-16	53456-17	53456-18
Our Reference:		53456-14	53456-15	53456-16	53456-17	53456-18
Your Reference	-----	TP38	TP38	TP38	TP40	TP40
Depth	-----	0.5	1.0	2.0	0.5	1.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	170	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	88	88	88	94	90

sTRH in Soil (C10-C36)	UNITS	53456-19	53456-20	53456-21	53456-22	53456-23
Our Reference:		53456-19	53456-20	53456-21	53456-22	53456-23
Your Reference	-----	TP40	HA40	HA40	HA40	HA40
Depth	-----	2.0	0.1	0.3	0.5	0.9
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	88	88	88	86	89

sTRH in Soil (C10-C36)	UNITS	53456-24	53456-25	53456-27	53456-29	53456-30
Our Reference:		HA33	HA33	HA44	HA26	QA07
Your Reference	-----					
Depth	-----	0.1	0.4	0.27	0.45	-
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50	<50	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100	<100	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100	<100	<100	<100
Surrogate o-Terphenyl	%	88	90	87	84	86

sTRH in Soil (C10-C36)	UNITS	53456-31	53456-32
Our Reference:		QA08	QA10
Your Reference	-----		
Depth	-----	-	-
Date Sampled		25/03/2011	25/03/2011
Type of sample		Soil	Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	<50	<50
TRHC ₁₅ - C ₂₈	mg/kg	<100	<100
TRHC ₂₉ - C ₃₆	mg/kg	<100	<100
Surrogate o-Terphenyl	%	86	86

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-1 TP33 0.5 25/03/2011 Soil	53456-5 TP39 0.5 25/03/2011 Soil	53456-6 TP39 1.0 25/03/2011 Soil	53456-11 TP34 1.0 25/03/2011 Soil	53456-14 TP38 0.5 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	92	75	84	92	88

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-15 TP38 1.0 25/03/2011 Soil	53456-16 TP38 2.0 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-19 TP40 2.0 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	87	86	70	77	88

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil	53456-30 QA07 - 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2	<0.2	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	0.06	<0.05	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	76	75	81	84	80

PAHs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-31 QA08 - 25/03/2011 Soil	53456-32 QA10 - 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	28/03/2011	28/03/2011
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	<0.1
Pyrene	mg/kg	<0.1	<0.1
Benzo(a)anthracene	mg/kg	<0.1	<0.1
Chrysene	mg/kg	<0.1	<0.1
Benzo(b+k)fluoranthene	mg/kg	<0.2	<0.2
Benzo(a)pyrene	mg/kg	<0.05	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1
Surrogate <i>p</i> -Terphenyl-d ₁₄	%	91	89

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-5 TP39 0.5 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011	30/03/2011	30/03/2011	30/03/2011
Phenol	mg/kg	<1	<1	<1	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1	<1	<1	<1
Hexachloroethane	mg/kg	<1	<1	<1	<1	<1
Nitrobenzene	mg/kg	<1	<1	<1	<1	<1
Isophorone	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1	<1
2-Nitrophenol	mg/kg	<1	<1	<1	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1	<1	<1	<1
Naphthalene	mg/kg	<1	<1	<1	<1	<1
4-Chloroaniline	mg/kg	<1	<1	<1	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1	<1	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1	<1	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1	<1	<1	<1
2-nitroaniline	mg/kg	<1	<1	<1	<1	<1
Dimethylphthalate	mg/kg	<1	<1	<1	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1	<1	<1	<1
Acenaphthylene	mg/kg	<1	<1	<1	<1	<1
3-Nitroaniline	mg/kg	<1	<1	<1	<1	<1
Acenaphthene	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
Dibenzofuran	mg/kg	<1	<1	<1	<1	<1
diethylphthalate	mg/kg	<1	<1	<1	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1	<1	<1	<1
4-nitroaniline	mg/kg	<1	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-5 TP39 0.5 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil
Fluorene	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
azobenzene	mg/kg	<1	<1	<1	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1	<1	<1	<1
hexachlorobenzene	mg/kg	<1	<1	<1	<1	<1
pentachlorophenol	mg/kg	<10	<10	<10	<10	<10
Phenanthrene	mg/kg	<1	<1	<1	<1	<1
Anthracene	mg/kg	<1	<1	<1	<1	<1
carbazole	mg/kg	<1	<1	<1	<1	<1
di-n-butylphthalate	mg/kg	<1	<1	<1	<1	<1
Fluoranthene	mg/kg	<1	<1	<1	<1	<1
Pyrene	mg/kg	<1	<1	<1	<1	<1
butylbenzylphthalate	mg/kg	<1	<1	<1	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1	<1	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1	<1	<1	<1
Chrysene	mg/kg	<1	<1	<1	<1	<1
di-n-octylphthalate	mg/kg	<1	<1	<1	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1	<1	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1	<1	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1	<1	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1	<1	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1	<1	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1	<1	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1	<1	<1	<1
aniline	mg/kg	<1	<1	<1	<1	<1
pentachloroethane	mg/kg	<1	<1	<1	<1	<1
benzyl alcohol	mg/kg	<1	<1	<1	<1	<1
acetophenone	mg/kg	<1	<1	<1	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1	<1	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1	<1
hexachloropropene-1	mg/kg	<1	<1	<1	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1	<1	<1	<1
safrole	mg/kg	<1	<1	<1	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1	<1	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1	<1	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1	<1	<1	<1
pentachlorobenzene	mg/kg	<1	<1	<1	<1	<1
1-naphthylamine	mg/kg	<1	<1	<1	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-5 TP39 0.5 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-23 HA40 0.9 25/03/2011 Soil	53456-24 HA33 0.1 25/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1	<1	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1	<1	<1	<1
diphenylamine	mg/kg	<1	<1	<1	<1	<1
phenacetin	mg/kg	<1	<1	<1	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1	<1	<1	<1
dinoseb	mg/kg	<1	<1	<1	<1	<1
methapyrilene	mg/kg	<1	<1	<1	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1	<1	<1	<1
2-acetylamino fluorene	mg/kg	<1	<1	<1	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1	<1	<1	<1
3-methylcholanthrene	mg/kg	<1	<1	<1	<1	<1
a-BHC	mg/kg	<1	<1	<1	<1	<1
b-BHC	mg/kg	<1	<1	<1	<1	<1
g-BHC	mg/kg	<1	<1	<1	<1	<1
d-BHC	mg/kg	<1	<1	<1	<1	<1
Heptachlor	mg/kg	<1	<1	<1	<1	<1
Aldrin	mg/kg	<1	<1	<1	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1	<1	<1	<1
g-Chlordane	mg/kg	<1	<1	<1	<1	<1
a-Chlordane	mg/kg	<1	<1	<1	<1	<1
Endosulfan I	mg/kg	<1	<1	<1	<1	<1
p,p'-DDE	mg/kg	<1	<1	<1	<1	<1
Dieldrin	mg/kg	<1	<1	<1	<1	<1
Endrin	mg/kg	<1	<1	<1	<1	<1
p,p'-DDD	mg/kg	<1	<1	<1	<1	<1
Endosulfan II	mg/kg	<1	<1	<1	<1	<1
p,p'-DDT	mg/kg	<1	<1	<1	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1	<1	<1	<1
Methoxychlor	mg/kg	<1	<1	<1	<1	<1
Surrogate 2-fluorophenol	%	128	105	116	134	101
Surrogate Phenol-d6	%	111	95	102	117	95
Surrogate Nitrobenzene-d5	%	112	99	104	122	101
Surrogate 2-fluorobiphenyl	%	85	82	82	86	82
Surrogate 2,4,6-Tribromophenol	%	64	60	62	68	61
Surrogate p-Terphenyl-d14	%	83	88	88	87	86

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011
Phenol	mg/kg	<1	<1
Bis-(2-chloroethyl) ether	mg/kg	<1	<1
2-Chlorophenol	mg/kg	<1	<1
1,3-Dichlorobenzene	mg/kg	<1	<1
1,4-Dichlorobenzene	mg/kg	<1	<1
2-Methylphenol	mg/kg	<1	<1
1,2-Dichlorobenzene	mg/kg	<1	<1
Bis (2-chloroisopropyl) ether	mg/kg	<1	<1
3/4-Methylphenol	mg/kg	<2	<2
N-nitrosodi-n-propylamine	mg/kg	<1	<1
Hexachloroethane	mg/kg	<1	<1
Nitrobenzene	mg/kg	<1	<1
Isophorone	mg/kg	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1
2-Nitrophenol	mg/kg	<1	<1
Bis(2-chloroethoxy) methane	mg/kg	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1
1,2,4-Trichlorobenzene	mg/kg	<1	<1
Naphthalene	mg/kg	<1	<1
4-Chloroaniline	mg/kg	<1	<1
Hexachlorobutadiene	mg/kg	<1	<1
2-Methylnaphthalene	mg/kg	<1	<1
Hexachlorocyclopentadiene	mg/kg	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1
2-Chloronaphthalene	mg/kg	<1	<1
2-nitroaniline	mg/kg	<1	<1
Dimethylphthalate	mg/kg	<1	<1
2,6-Dinitrotoluene	mg/kg	<1	<1
Acenaphthylene	mg/kg	<1	<1
3-Nitroaniline	mg/kg	<1	<1
Acenaphthene	mg/kg	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10
4-nitrophenol	mg/kg	<10	<10
Dibenzofuran	mg/kg	<1	<1
diethylphthalate	mg/kg	<1	<1
4-chlorophenylphenylether	mg/kg	<1	<1
4-nitroaniline	mg/kg	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
Fluorene	mg/kg	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10
azobenzene	mg/kg	<1	<1
4-bromophenylphenylether	mg/kg	<1	<1
hexachlorobenzene	mg/kg	<1	<1
pentachlorophenol	mg/kg	<10	<10
Phenanthrene	mg/kg	<1	<1
Anthracene	mg/kg	<1	<1
carbazole	mg/kg	<1	<1
di-n-butylphthalate	mg/kg	<1	<1
Fluoranthene	mg/kg	<1	<1
Pyrene	mg/kg	<1	<1
butylbenzylphthalate	mg/kg	<1	<1
bis(2-ethylhexyl)phthalate	mg/kg	<1	<1
Benzo(a)anthracene	mg/kg	<1	<1
Chrysene	mg/kg	<1	<1
di-n-octylphthalate	mg/kg	<1	<1
Benzo(b)fluoranthene	mg/kg	<1	<1
Benzo(k)fluoranthene	mg/kg	<1	<1
Benzo(a)pyrene	mg/kg	<1	<1
Indeno(1,2,3-c,d)pyrene	mg/kg	<1	<1
Dibenzo(a,h)anthracene	mg/kg	<1	<1
Benzo(g,h,i)perylene	mg/kg	<1	<1
ethylmethanesulfonate	mg/kg	<1	<1
aniline	mg/kg	<1	<1
pentachloroethane	mg/kg	<1	<1
benzyl alcohol	mg/kg	<1	<1
acetophenone	mg/kg	<1	<1
N-nitrosomorpholine	mg/kg	<1	<1
N-nitrosopiperidine	mg/kg	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1
hexachloropropene-1	mg/kg	<1	<1
N-nitroso-n-butylamine	mg/kg	<1	<1
safrole	mg/kg	<1	<1
1,2,4,5-tetrachlorobenzene	mg/kg	<1	<1
cis and trans iso-safrole	mg/kg	<1	<1
1,3-dinitrobenzene	mg/kg	<1	<1
pentachlorobenzene	mg/kg	<1	<1
1-naphthylamine	mg/kg	<1	<1
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1

SVOCs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
2-naphthylamine	mg/kg	<1	<1
5-nitro-o-toluidine	mg/kg	<1	<1
diphenylamine	mg/kg	<1	<1
phenacetin	mg/kg	<1	<1
pentachloronitrobenzene	mg/kg	<1	<1
dinoseb	mg/kg	<1	<1
methapyrilene	mg/kg	<1	<1
p-dimethylaminoazobenzene	mg/kg	<1	<1
2-acetylaminofluorene	mg/kg	<1	<1
7,12-dimethylbenz(a)anthracene	mg/kg	<1	<1
3-methylcholanthrene	mg/kg	<1	<1
a-BHC	mg/kg	<1	<1
b-BHC	mg/kg	<1	<1
g-BHC	mg/kg	<1	<1
d-BHC	mg/kg	<1	<1
Heptachlor	mg/kg	<1	<1
Aldrin	mg/kg	<1	<1
Heptachlor Epoxide	mg/kg	<1	<1
g-Chlordane	mg/kg	<1	<1
a-Chlordane	mg/kg	<1	<1
Endosulfan I	mg/kg	<1	<1
p,p'-DDE	mg/kg	<1	<1
Dieldrin	mg/kg	<1	<1
Endrin	mg/kg	<1	<1
p,p'-DDD	mg/kg	<1	<1
Endosulfan II	mg/kg	<1	<1
p,p'-DDT	mg/kg	<1	<1
Endosulfan Sulphate	mg/kg	<1	<1
Methoxychlor	mg/kg	<1	<1
Surrogate 2-fluorophenol	%	130	111
Surrogate Phenol-d6	%	103	92
Surrogate Nitrobenzene-d5	%	112	102
Surrogate 2-fluorobiphenyl	%	87	85
Surrogate 2,4,6-Tribromophenol	%	65	63
Surrogate p-Terphenyl-d14	%	84	85

Speciated Phenols in Soil	UNITS	53456-5	53456-17	53456-18	53456-27	53456-29
Our Reference:	-----	TP39	TP40	TP40	HA44	HA26
Your Reference	-----	0.5	0.5	1.0	0.27	0.45
Depth						
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011	30/03/2011	30/03/2011	30/03/2011
Phenol	mg/kg	<1	<1	<1	<1	<1
2-Chlorophenol	mg/kg	<1	<1	<1	<1	<1
2-Methylphenol	mg/kg	<1	<1	<1	<1	<1
3/4-Methylphenol	mg/kg	<2	<2	<2	<2	<2
2-Nitrophenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dimethylphenol	mg/kg	<1	<1	<1	<1	<1
2,4-Dichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,6-dichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,5-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4,6-trichlorophenol	mg/kg	<1	<1	<1	<1	<1
2,4-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
4-nitrophenol	mg/kg	<10	<10	<10	<10	<10
2,3,4,6-tetrachlorophenol	mg/kg	<1	<1	<1	<1	<1
2-methyl-4,6-dinitrophenol	mg/kg	<10	<10	<10	<10	<10
pentachlorophenol	mg/kg	<10	<10	<10	<10	<10
Surrogate 2-fluorophenol	%	128	105	116	130	111
Surrogate Phenol-d6	%	111	95	102	103	92
Surrogate 2,4,6-Tribromophenol	%	64	61	62	65	63
Surrogate p-Terphenyl-d14	%	83	88	88	84	85

Organochlorine Pesticides in soil		53456-5	53456-17	53456-18	53456-27	53456-29
Our Reference:	UNITS	53456-5	53456-17	53456-18	53456-27	53456-29
Your Reference	-----	TP39	TP40	TP40	HA44	HA26
Depth	-----	0.5	0.5	1.0	0.27	0.45
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
HCB	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	102	100	101	100	98

PCBs in Soil Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-5 TP39 0.5 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-27 HA44 0.27 25/03/2011 Soil	53456-29 HA26 0.45 25/03/2011 Soil
Date extracted	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arochlor 1016	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221*	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Surrogate TCLMX	%	102	100	101	100	98

Acid Extractable metals in soil						
Our Reference:	UNITS	53456-1	53456-2	53456-5	53456-6	53456-7
Your Reference	-----	TP33	TP33	TP39	TP39	TP39
Depth	-----	0.5	1.0	0.5	1.0	1.9
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	11	20	16	6	6
Antimony	mg/kg	<7	<7	<7	<7	<7
Beryllium	mg/kg	<1	<1	<1	<1	2
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	33	39	35	23	27
Cobalt	mg/kg	4	8	28	6	28
Lead	mg/kg	18	47	14	13	16
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	4	9	9	4	23
Tin	mg/kg	<1	1	2	<1	1
Selenium	mg/kg	<2	<2	<2	<2	<2
Zinc	mg/kg	44	73	54	21	120
Chromium	mg/kg	5	9	5	3	7
Manganese	mg/kg	74	210	290	120	320
Vanadium	mg/kg	16	17	17	12	20
Sulphur	mg/kg	[NA]	[NA]	280	[NA]	[NA]
Phosphorus	mg/kg	[NA]	[NA]	65	[NA]	[NA]

Acid Extractable metals in soil		53456-9	53456-11	53456-14	53456-15	53456-16
Our Reference:	UNITS	53456-9	53456-11	53456-14	53456-15	53456-16
Your Reference	-----	TP34	TP34	TP38	TP38	TP38
Depth	-----	0.2	1.0	0.5	1.0	2.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	14	38	87	21	10
Antimony	mg/kg	<7	<7	<7	<7	<7
Beryllium	mg/kg	<1	<1	3	1	<1
Cadmium	mg/kg	<0.5	<0.5	0.9	<0.5	<0.5
Copper	mg/kg	41	22	42	42	32
Cobalt	mg/kg	21	9	35	17	3
Lead	mg/kg	31	22	18	17	28
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	36	9	29	12	3
Tin	mg/kg	1	2	1	1	<1
Selenium	mg/kg	<2	<2	<2	<2	<2
Zinc	mg/kg	190	59	150	74	24
Chromium	mg/kg	22	13	5	4	4
Manganese	mg/kg	450	220	990	660	20
Vanadium	mg/kg	32	36	14	10	12

Acid Extractable metals in soil		53456-17	53456-18	53456-19	53456-22	53456-23
Our Reference:	UNITS	53456-17	53456-18	53456-19	53456-22	53456-23
Your Reference	-----	TP40	TP40	TP40	HA40	HA40
Depth	-----	0.5	1.0	2.0	0.5	0.9
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	8	8	6	5	<4
Antimony	mg/kg	<7	<7	<7	<7	<7
Beryllium	mg/kg	<1	<1	1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	51	26	52	15	14
Cobalt	mg/kg	8	25	29	<1	<1
Lead	mg/kg	160	18	45	21	14
Mercury	mg/kg	<0.1	0.8	0.4	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	20	14	21	1	1
Tin	mg/kg	3	2	4	1	<1
Selenium	mg/kg	<2	<2	<2	<2	<2
Zinc	mg/kg	140	63	120	5	4
Chromium	mg/kg	14	8	8	9	5
Manganese	mg/kg	160	590	670	9	3
Vanadium	mg/kg	25	14	15	27	15
Sulphur	mg/kg	220	170	[NA]	[NA]	[NA]
Phosphorus	mg/kg	240	520	[NA]	[NA]	[NA]

Acid Extractable metals in soil		53456-24	53456-25	53456-27	53456-28	53456-29
Our Reference:	UNITS	53456-24	53456-25	53456-27	53456-28	53456-29
Your Reference	-----	HA33	HA33	HA44	HA44	HA26
Depth	-----	0.1	0.4	0.27	0.35	0.45
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	10	7	<4	9	11
Antimony	mg/kg	<7	<7	<7	<7	<7
Beryllium	mg/kg	<1	<1	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	mg/kg	59	23	16	41	48
Cobalt	mg/kg	6	3	<1	3	2
Lead	mg/kg	94	21	21	29	21
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	mg/kg	<1	<1	<1	<1	<1
Nickel	mg/kg	12	4	<1	2	4
Tin	mg/kg	20	2	<1	<1	7
Selenium	mg/kg	<2	<2	<2	<2	<2
Zinc	mg/kg	130	50	3	12	21
Chromium	mg/kg	16	16	2	10	10
Manganese	mg/kg	270	54	2	10	47
Vanadium	mg/kg	29	44	3	36	27
Sulphur	mg/kg	[NA]	[NA]	130	[NA]	130
Phosphorus	mg/kg	[NA]	[NA]	43	[NA]	57

Acid Extractable metals in soil	UNITS	53456-30	53456-31	53456-32
Our Reference:	-----	QA07	QA08	QA10
Your Reference	-----	-	-	-
Depth				
Date Sampled		25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil
Date digested	-	29/03/2011	29/03/2011	29/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011
Arsenic	mg/kg	12	<4	<4
Antimony	mg/kg	<7	<7	<7
Beryllium	mg/kg	<1	<1	<1
Cadmium	mg/kg	<0.5	<0.5	<0.5
Copper	mg/kg	18	22	22
Cobalt	mg/kg	27	2	<1
Lead	mg/kg	11	10	16
Mercury	mg/kg	<0.1	0.4	<0.1
Molybdenum	mg/kg	<1	<1	<1
Nickel	mg/kg	9	1	<1
Tin	mg/kg	1	<1	1
Selenium	mg/kg	<2	<2	<2
Zinc	mg/kg	48	10	4
Chromium	mg/kg	8	2	2
Manganese	mg/kg	200	110	3
Vanadium	mg/kg	28	5	7

Miscellaneous Inorg - soil		53456-5	53456-17	53456-18	53456-27	53456-29
Our Reference:	UNITS	53456-5	53456-17	53456-18	53456-27	53456-29
Your Reference	-----	TP39	TP40	TP40	HA44	HA26
Depth	-----	0.5	0.5	1.0	0.27	0.45
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	30/03/2011	30/03/2011	30/03/2011	30/03/2011	30/03/2011
Total Cyanide	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrate as N in soil	mg/kg	<0.5	34	45	<0.5	22
Sulphate, SO4 1:5 soil:water	mg/kg	200	290	160	14	99
Hexavalent Chromium, Cr ⁶⁺	mg/kg	<1	<1	<1	<1	<1

Moisture						
Our Reference:	UNITS	53456-1	53456-2	53456-5	53456-6	53456-7
Your Reference	-----	TP33	TP33	TP39	TP39	TP39
Depth	-----	0.5	1.0	0.5	1.0	1.9
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	7.3	9.0	17	19	20

Moisture						
Our Reference:	UNITS	53456-9	53456-11	53456-14	53456-15	53456-16
Your Reference	-----	TP34	TP34	TP38	TP38	TP38
Depth	-----	0.2	1.0	0.5	1.0	2.0
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	10	11	10	11	14

Moisture						
Our Reference:	UNITS	53456-17	53456-18	53456-19	53456-20	53456-21
Your Reference	-----	TP40	TP40	TP40	HA40	HA40
Depth	-----	0.5	1.0	2.0	0.1	0.3
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	13	8.8	12	14	16

Moisture						
Our Reference:	UNITS	53456-22	53456-23	53456-24	53456-25	53456-27
Your Reference	-----	HA40	HA40	HA33	HA33	HA44
Depth	-----	0.5	0.9	0.1	0.4	0.27
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	13	14	17	21	17

Moisture						
Our Reference:	UNITS	53456-28	53456-29	53456-30	53456-31	53456-32
Your Reference	-----	HA44	HA26	QA07	QA08	QA10
Depth	-----	0.35	0.45	-	-	-
Date Sampled		25/03/2011	25/03/2011	25/03/2011	25/03/2011	25/03/2011
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	28/03/2011	28/03/2011	28/03/2011	28/03/2011	28/03/2011
Date analysed	-	29/03/2011	29/03/2011	29/03/2011	29/03/2011	29/03/2011
Moisture	%	12	22	11	18	15

Moisture		
Our Reference:	UNITS	53456-34
Your Reference	-----	Trip Blank
Depth	-----	-
Date Sampled		25/03/2011
Type of sample		Soil
Date prepared	-	28/03/2011
Date analysed	-	29/03/2011
Moisture	%	3.5

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-2 TP33 1.0 25/03/2011 Soil	53456-5 TP39 0.5 25/03/2011 Soil	53456-6 TP39 1.0 25/03/2011 Soil	53456-14 TP38 0.5 25/03/2011 Soil	53456-15 TP38 1.0 25/03/2011 Soil
Date analysed	-	30/3/2011	30/3/2011	30/3/2011	30/3/2011	30/3/2011
Sample mass tested	g	Approx 30g	Approx 30g	Approx 30g	Approx 30g	Approx 30g
Sample Description	-	Soil	Soil	Soil	Soil	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Asbestos ID - soils Our Reference: Your Reference Depth Date Sampled Type of sample	UNITS ----- -----	53456-16 TP38 2.0 25/03/2011 Soil	53456-17 TP40 0.5 25/03/2011 Soil	53456-18 TP40 1.0 25/03/2011 Soil	53456-19 TP40 2.0 25/03/2011 Soil
Date analysed	-	30/3/2011	30/3/2011	30/3/2011	30/3/2011
Sample mass tested	g	Approx 30g	Approx 30g	Approx 30g	Approx 30g
Sample Description	-	Soil	Soil	Soil	Soil
Asbestos ID in soil	-	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg	No asbestos found at reporting limit of 0.1g/kg
Trace Analysis	-	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected	Respirable fibres not detected

Metals in Waters - Dissolved	UNITS	53456-33
Our Reference:	-----	RB04
Your Reference	-----	-
Depth		
Date Sampled		25/03/2011
Type of sample		Water
Date digested	-	29/03/2011
Date analysed	-	30/03/2011
Arsenic - Dissolved	mg/L	<0.05
Beryllium - Dissolved	mg/L	<0.01
Cadmium - Dissolved	mg/L	<0.01
Chromium - Dissolved	mg/L	<0.01
Copper - Dissolved	mg/L	<0.01
Cobalt - Dissolved	mg/L	<0.02
Lead - Dissolved	mg/L	<0.03
Mercury - Dissolved	mg/L	<0.0004
Molybdenum - Dissolved	mg/L	<0.03
Nickel - Dissolved	mg/L	<0.02
Tin - Dissolved	mg/L	<0.05
Zinc - Dissolved	mg/L	<0.02
Manganese - Dissolved	mg/L	<0.01
Vanadium - Dissolved	mg/L	<0.02

MethodID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-012	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-013	Cyanide - total determined colourimetrically after distillation, based on APHA 21st ED, 4500-CN_C,E. Free cyanide determined colourimetrically after filtration.
Inorg-055	Nitrate - determined colourimetrically based on EPA353.2 and APHA 21st ED NO3- F. Soils are analysed following a water extraction.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 21st ED, 4110-B.
Inorg-024	Hexavalent Chromium (Cr6+) - determined colourimetrically based upon APHA 21st ED, 3500-Cr-B.
Inorg-008	Moisture content determined by heating at 105 deg C for a minimum of 4 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos type fibres in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques.

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-17	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			28/03/2011	53456-17	28/03/2011 28/03/2011	LCS-3	28/03/2011
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	74%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	85%
2,2-dichloropropane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	83%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	76%
1,1-dichloropropene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Benzene	mg/kg	0.5	Org-014	<0.5	53456-17	<0.5 <0.5	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	70%
bromodichloromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	83%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	53456-17	<0.5 <0.5	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	78%
1,2-dibromoethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	53456-17	<1 <1	LCS-3	76%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	53456-17	<2 <2	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
VOCs in soil						Base II Duplicate II %RPD		
o-Xylene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	53456-17	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	100	53456-17	97 96 RPD: 1	LCS-3	96%
Surrogate aaa-Trifluorotoluene	%		Org-014	117	53456-17	94 98 RPD: 4	LCS-3	99%
Surrogate Toluene-d8	%		Org-014	102	53456-17	102 101 RPD: 1	LCS-3	101%
Surrogate 4-Bromofluorobenzene	%		Org-014	101	53456-17	100 100 RPD: 0	LCS-3	101%

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
MAH's in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Benzene	mg/kg	0.5	Org-014	<0.5	53456-6	<0.5 <0.5	LCS-3	79%
Toluene	mg/kg	0.5	Org-014	<0.5	53456-6	<0.5 <0.5	LCS-3	88%
Ethylbenzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	LCS-3	93%
m+p-xylene	mg/kg	2	Org-014	<2	53456-6	<2 <2	LCS-3	94%
o-Xylene	mg/kg	1	Org-014	<1	53456-6	<1 <1	LCS-3	97%
styrene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
isopropylbenzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	53456-6	<1 <1	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	100	53456-6	99 98 RPD: 1	LCS-3	89%
Surrogate aaa-Trifluorotoluene	%		Org-014	117	53456-6	96 89 RPD: 8	LCS-3	95%
Surrogate Toluene-d8	%		Org-014	102	53456-6	102 101 RPD: 1	LCS-3	101%
Surrogate 4-Bromofluorobenzene	%		Org-014	101	53456-6	100 100 RPD: 0	LCS-3	100%

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
TRH in Soil (C6-C9)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
vTRHC ₆ - C ₉	mg/kg	25	Org-016	<25	53456-6	<25 <25	LCS-3	90%
Surrogate aaa-Trifluorotoluene	%		Org-016	117	53456-6	96 89 RPD: 8	LCS-3	95%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
sTRH in Soil (C10-C36)						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	50	Org-003	<50	53456-6	<50 <50	LCS-3	74%
TRHC ₁₅ - C ₂₈	mg/kg	100	Org-003	<100	53456-6	<100 <100	LCS-3	73%
TRHC ₂₉ - C ₃₆	mg/kg	100	Org-003	<100	53456-6	<100 <100	LCS-3	68%
Surrogate o-Terphenyl	%		Org-003	90	53456-6	88 88 RPD: 0	LCS-3	88%
QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			28/03/2011	53456-6	28/03/2011 28/03/2011	LCS-3	28/03/2011
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	88%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	86%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	90%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	85%
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	89%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	LCS-3	99%
Benzo(b+k)fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	53456-6	<0.2 <0.2	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PAHs in Soil						Base II Duplicate II %RPD		
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	53456-6	<0.05 <0.05	LCS-3	87%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	53456-6	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	76	53456-6	84 82 RPD: 2	LCS-3	85%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-17	28/03/2011 28/03/2011	LCS-3	28/03/2011
Date analysed	-			30/03/2011	53456-17	30/03/2011 30/03/2011	LCS-3	30/03/2011
Phenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	117%
Bis-(2-chloroethyl) ether	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-Chlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	110%
1,3-Dichlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	121%
2-Methylphenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
3/4-Methylphenol	mg/kg	2	Org-012	<2	53456-17	<2 <2	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Hexachloroethane	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Nitrobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Isophorone	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Naphthalene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
4-Chloroaniline	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Hexachlorobutadiene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-Methylnaphthalene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
2-Chloronaphthalene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-nitroaniline	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Dimethylphthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	72%
2,6-Dinitrotoluene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Acenaphthylene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
3-Nitroaniline	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Acenaphthene	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	87%
2,4-dinitrophenol	mg/kg	10	Org-012	<10	53456-17	<10 <10	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	53456-17	<10 <10	LCS-3	60%
Dibenzofuran	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
diethylphthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	71%
4-chlorophenylphenylether	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
4-nitroaniline	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Fluorene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	53456-17	<10 <10	[NR]	[NR]
azobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
4-bromophenylphenylether	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
hexachlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	53456-17	<10 <10	[NR]	[NR]
Phenanthrene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Anthracene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
carbazole	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
di-n-butylphthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Fluoranthene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Pyrene	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	76%
butylbenzylphthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Benzo(a)anthracene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Chrysene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
di-n-octylphthalate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Benzo(a)pyrene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
ethylmethanesulfonate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
aniline	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
pentachloroethane	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
benzyl alcohol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
acetophenone	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
N-nitrosomorpholine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
N-nitrosopiperidine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
hexachloropropene-1	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
safrole	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1,2,4,5-tetrachlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
cis and trans iso-safrole	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
pentachlorobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
1-naphthylamine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-naphthylamine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
diphenylamine	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
phenacetin	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
pentachloronitrobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
dinoseb	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
methapyrilene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
p-dimethylaminoazobenzene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
2-acetylaminofluorene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
7,12-dimethylbenz(a)anthracene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
3-methylcholanthrene	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
a-BHC	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
b-BHC	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
g-BHC	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
d-BHC	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Heptachlor	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Aldrin	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	108%
Heptachlor Epoxide	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
g-Chlordane	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
a-Chlordane	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Endosulfan I	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
p,p'-DDE	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Dieldrin	mg/kg	1	Org-012	<1	53456-17	<1 <1	LCS-3	110%
Endrin	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
p,p'-DDD	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Endosulfan II	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
p,p'-DDT	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
SVOCs in Soil						Base II Duplicate II %RPD		
Methoxychlor	mg/kg	1	Org-012	<1	53456-17	<1 <1	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	111	53456-17	105 111 RPD: 6	LCS-3	128%
<i>Surrogate</i> Phenol-d ₆	%		Org-012	99	53456-17	95 99 RPD: 4	LCS-3	115%
<i>Surrogate</i> Nitrobenzene-d ₅	%		Org-012	107	53456-17	99 107 RPD: 8	LCS-3	116%
<i>Surrogate</i> 2-fluorobiphenyl	%		Org-012	82	53456-17	82 82 RPD: 0	LCS-3	87%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	60	53456-17	60 61 RPD: 2	LCS-3	62%
<i>Surrogate</i> p-Terphenyl-d ₁₄	%		Org-012	82	53456-17	88 82 RPD: 7	LCS-3	82%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Speciated Phenols in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	[NT]	[NT]	LCS-3	28/03/2011
Date analysed	-			30/03/2011	[NT]	[NT]	LCS-3	30/03/2011
Phenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	117%
2-Chlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-Methylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	110%
3/4-Methylphenol	mg/kg	2	Org-012	<2	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	LCS-3	121%
2,4-Dimethylphenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2,4-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	1	Org-012	<1	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	10	Org-012	<10	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> 2-fluorophenol	%		Org-012	97	[NT]	[NT]	LCS-3	128%
<i>Surrogate</i> Phenol-d ₆	%		Org-012	87	[NT]	[NT]	LCS-3	115%
<i>Surrogate</i> 2,4,6-Tribromophenol	%		Org-012	60	[NT]	[NT]	LCS-3	62%
<i>Surrogate</i> p-Terphenyl-d ₁₄	%		Org-012	83	[NT]	[NT]	LCS-3	82%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Organochlorine Pesticides in soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-17	28/03/2011 28/03/2011	LCS-7	28/03/2011
Date analysed	-			29/03/2011	53456-17	29/03/2011 29/03/2011	LCS-7	29/03/2011
HCB	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	98%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	81%
Heptachlor	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	97%
delta-BHC	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	92%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	99%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	84%
Dieldrin	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	98%
Endrin	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	94%
pp-DDD	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	85%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	LCS-7	94%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-005	99	53456-17	100 102 RPD: 2	LCS-7	99%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
PCBs in Soil						Base II Duplicate II %RPD		
Date extracted	-			28/03/2011	53456-17	28/03/2011 28/03/2011	LCS-7	28/03/2011
Date analysed	-			29/03/2011	53456-17	29/03/2011 29/03/2011	LCS-7	29/03/2011
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Arochlor 1221*	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	LCS-7	122%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	53456-17	<0.1 <0.1	[NR]	[NR]
Surrogate TCLMX	%		Org-006	99	53456-17	100 102 RPD: 2	LCS-7	103%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Date digested	-			29/03/2011	53456-6	29/03/2011 29/03/2011	LCS-1	29/03/2011
Date analysed	-			29/03/2011	53456-6	29/03/2011 29/03/2011	LCS-1	29/03/2011
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	53456-6	6 5 RPD: 18	LCS-1	106%
Antimony	mg/kg	7	Metals-020 ICP-AES	<7	53456-6	<7 <7	LCS-1	97%
Beryllium	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	<1 <1	LCS-1	103%
Cadmium	mg/kg	0.5	Metals-020 ICP-AES	<0.5	53456-6	<0.5 <0.5	LCS-1	109%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	23 25 RPD: 8	LCS-1	109%
Cobalt	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	6 5 RPD: 18	LCS-1	107%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	13 14 RPD: 7	LCS-1	107%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	53456-6	<0.1 <0.1	LCS-1	120%
Molybdenum	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	<1 <1	LCS-1	107%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	4 3 RPD: 29	LCS-1	108%
Tin	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	<1 <1	LCS-1	106%
Selenium	mg/kg	2	Metals-020 ICP-AES	<2	53456-6	<2 <2	LCS-1	105%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	21 19 RPD: 10	LCS-1	108%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	3 3 RPD: 0	LCS-1	107%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Acid Extractable metals in soil						Base II Duplicate II %RPD		
Manganese	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	120 120 RPD: 0	LCS-1	111%
Vanadium	mg/kg	1	Metals-020 ICP-AES	<1	53456-6	12 7 RPD: 53	LCS-1	105%
Sulphur	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	105%
Phosphorus	mg/kg	10	Metals-020 ICP-AES	<10	[NT]	[NT]	LCS-1	102%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Miscellaneous Inorg - soil						Base II Duplicate II %RPD		
Date prepared	-			28/03/2011	53456-5	28/03/2011 28/03/2011	LCS-1	28/03/2011
Date analysed	-			30/03/2011	53456-5	30/03/2011 30/03/2011	LCS-1	30/03/2011
Total Cyanide	mg/kg	0.5	Inorg-013	<0.5	53456-5	<0.5 <0.5	LCS-1	102%
Nitrate as N in soil	mg/kg	0.5	Inorg-055	<0.5	53456-5	<0.5 <0.5	LCS-1	114%
Sulphate, SO4 1:5 soil:water	mg/kg	2	Inorg-081	<2	53456-5	200 [N/T]	LCS-1	106%
Hexavalent Chromium, Cr ⁶⁺	mg/kg	1	Inorg-024	<1	53456-5	<1 <1	LCS-1	94%
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Moisture								
Date prepared	-			28/03/2011				
Date analysed	-			29/03/2011				
Moisture	%	0.1	Inorg-008	<0.1				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank				
Asbestos ID - soils								
Date analysed	-			[NT]				
QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Date digested	-			29/03/2011	[NT]	[NT]	LCS-1	29/03/2011
Date analysed	-			30/03/2011	[NT]	[NT]	LCS-1	30/03/2011
Arsenic - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-1	101%
Beryllium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-1	95%
Cadmium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-1	103%
Chromium - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-1	101%

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QUALITYCONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in Waters - Dissolved						Base II Duplicate II %RPD		
Copper - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-1	102%
Cobalt - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	102%
Lead - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-1	99%
Mercury - Dissolved	mg/L	0.0004	Metals-021 CV-AAS	<0.0004	[NT]	[NT]	LCS-1	96%
Molybdenum - Dissolved	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-1	92%
Nickel - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	102%
Tin - Dissolved	mg/L	0.05	Metals-020 ICP-AES	<0.05	[NT]	[NT]	LCS-1	96%
Zinc - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	102%
Manganese - Dissolved	mg/L	0.01	Metals-020 ICP-AES	<0.01	[NT]	[NT]	LCS-1	105%
Vanadium - Dissolved	mg/L	0.02	Metals-020 ICP-AES	<0.02	[NT]	[NT]	LCS-1	100%

QUALITYCONTROL	UNITS	Dup. Sm#	Duplicate	Spike Sm#	Spike % Recovery
VOCs in soil			Base + Duplicate + %RPD		
Date extracted	-	[NT]	[NT]	53456-18	28/03/2011
Date analysed	-	[NT]	[NT]	53456-18	28/03/2011
Dichlorodifluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	[NT]	[NT]	53456-18	75%
cis-1,2-dichloroethene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	[NT]	[NT]	53456-18	86%
2,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	[NT]	[NT]	53456-18	83%
1,1,1-trichloroethane	mg/kg	[NT]	[NT]	53456-18	75%
1,1-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
dibromomethane	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	[NT]	[NT]	53456-18	70%
bromodichloromethane	mg/kg	[NT]	[NT]	53456-18	80%
trans-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	[NT]	[NT]	53456-18	74%
1,2-dibromoethane	mg/kg	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	[NT]	[NT]	53456-18	76%
1,1,1,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	[NT]	[NT]	[NR]	[NR]
isopropylbenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropan e	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]

Client Reference: 2120474, Phase 2

QUALITY CONTROL VOCs in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> Dibromofluorometha	%	[NT]	[NT]	53456-18	97%
<i>Surrogate</i> aaa-Trifluorotoluene	%	[NT]	[NT]	53456-18	98%
<i>Surrogate</i> Toluene-d8	%	[NT]	[NT]	53456-18	101%
<i>Surrogate</i> 4-Bromofluorobenzene	%	[NT]	[NT]	53456-18	100%
QUALITY CONTROL TRH in Soil (C6-C9)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53456-17	28/03/2011 28/03/2011	53456-18	28/03/2011
Date analysed	-	53456-17	28/03/2011 28/03/2011	53456-18	28/03/2011
vTRHC ₆ - C ₉	mg/kg	53456-17	<25 <25	53456-18	75%
<i>Surrogate</i> aaa-Trifluorotoluene	%	53456-17	94 98 RPD: 4	53456-18	91%
QUALITY CONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53456-17	28/03/2011 28/03/2011	LCS-4	28/03/2011
Date analysed	-	53456-17	28/03/2011 28/03/2011	LCS-4	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	53456-17	<50 <50	LCS-4	68%
TRHC ₁₅ - C ₂₈	mg/kg	53456-17	170 120 RPD: 34	LCS-4	78%
TRHC ₂₉ - C ₃₆	mg/kg	53456-17	<100 <100	LCS-4	67%
<i>Surrogate</i> o-Terphenyl	%	53456-17	94 89 RPD: 5	LCS-4	81%
QUALITY CONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	53456-17	28/03/2011 28/03/2011	53456-18	28/03/2011
Date analysed	-	53456-17	28/03/2011 28/03/2011	53456-18	28/03/2011
Naphthalene	mg/kg	53456-17	<0.1 <0.1	53456-18	90%
Acenaphthylene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Acenaphthene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Fluorene	mg/kg	53456-17	<0.1 <0.1	53456-18	91%
Phenanthrene	mg/kg	53456-17	<0.1 <0.1	53456-18	92%
Anthracene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Fluoranthene	mg/kg	53456-17	<0.1 <0.1	53456-18	90%
Pyrene	mg/kg	53456-17	<0.1 <0.1	53456-18	93%
Benzo(a)anthracene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Chrysene	mg/kg	53456-17	<0.1 <0.1	53456-18	97%
Benzo(b+k)fluoranthene	mg/kg	53456-17	<0.2 <0.2	[NR]	[NR]
Benzo(a)pyrene	mg/kg	53456-17	<0.05 <0.05	53456-18	90%
Indeno(1,2,3-c,d)pyrene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]

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QUALITYCONTROL PAHs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Benzo(g,h,i)perylene	mg/kg	53456-17	<0.1 <0.1	[NR]	[NR]
Surrogate p-Terphenyl-d14	%	53456-17	70 80 RPD: 13	53456-18	88%
QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53456-18	28/03/2011
Date analysed	-	[NT]	[NT]	53456-18	30/03/2011
Phenol	mg/kg	[NT]	[NT]	53456-18	96%
Bis-(2-chloroethyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chlorophenol	mg/kg	[NT]	[NT]	53456-18	91%
1,3-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1,4-Dichlorobenzene	mg/kg	[NT]	[NT]	53456-18	99%
2-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2-Dichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis (2-chloroisopropyl) ether	mg/kg	[NT]	[NT]	[NR]	[NR]
3/4-Methylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosodi-n-propylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
Nitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Isophorone	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dimethylphenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Nitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Bis(2-chloroethoxy)methane	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4-Dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
1,2,4-Trichlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
Naphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-Chloroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorobutadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Methylnaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexachlorocyclopentadiene	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,6-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2,4,5-trichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-Chloronaphthalene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Dimethylphthalate	mg/kg	[NT]	[NT]	53456-18	62%
2,6-Dinitrotoluene	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthylene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-Nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	[NT]	[NT]	53456-18	69%

QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
2,4-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitrophenol	mg/kg	[NT]	[NT]	53456-18	66%
Dibenzofuran	mg/kg	[NT]	[NT]	[NR]	[NR]
diethylphthalate	mg/kg	[NT]	[NT]	53456-18	60%
4-chlorophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]
4-nitroaniline	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
2-methyl-4,6-dinitrophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
azobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
4-bromophenylphenylether	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
Phenanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
carbazole	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-butylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Pyrene	mg/kg	[NT]	[NT]	53456-18	65%
butylbenzylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
bis(2-ethylhexyl)phthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	[NT]	[NT]	[NR]	[NR]
di-n-octylphthalate	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(b)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(k)fluoranthene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Indeno(1,2,3-c,d)pyrene	mg/kg	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	[NT]	[NT]	[NR]	[NR]
ethylmethanesulfonate	mg/kg	[NT]	[NT]	[NR]	[NR]
aniline	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloroethane	mg/kg	[NT]	[NT]	[NR]	[NR]
benzyl alcohol	mg/kg	[NT]	[NT]	[NR]	[NR]
acetophenone	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosomorpholine	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitrosopiperidine	mg/kg	[NT]	[NT]	[NR]	[NR]
2,6-dichlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
hexachloropropene-1	mg/kg	[NT]	[NT]	[NR]	[NR]
N-nitroso-n-butylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
safrole	mg/kg	[NT]	[NT]	[NR]	[NR]

QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
1,2,4,5-tetrachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
cis and trans iso-safrole	mg/kg	[NT]	[NT]	[NR]	[NR]
1,3-dinitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachlorobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
1-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
2,3,4,6-tetrachlorophenol	mg/kg	[NT]	[NT]	[NR]	[NR]
2-naphthylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
5-nitro-o-toluidine	mg/kg	[NT]	[NT]	[NR]	[NR]
diphenylamine	mg/kg	[NT]	[NT]	[NR]	[NR]
phenacetin	mg/kg	[NT]	[NT]	[NR]	[NR]
pentachloronitrobenzene	mg/kg	[NT]	[NT]	[NR]	[NR]
dinoseb	mg/kg	[NT]	[NT]	[NR]	[NR]
methapyrilene	mg/kg	[NT]	[NT]	[NR]	[NR]
p-dimethylaminoazobenzen e	mg/kg	[NT]	[NT]	[NR]	[NR]
2-acetylaminofluorene	mg/kg	[NT]	[NT]	[NR]	[NR]
7,12-dimethylbenz(a)anthra cene	mg/kg	[NT]	[NT]	[NR]	[NR]
3-methylcholanthrene	mg/kg	[NT]	[NT]	[NR]	[NR]
a-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
b-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
g-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
d-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Heptachlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	53456-18	110%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	[NR]	[NR]
g-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
a-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDE	mg/kg	[NT]	[NT]	[NR]	[NR]
Dieldrin	mg/kg	[NT]	[NT]	53456-18	116%
Endrin	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDD	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
p,p'-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	[NR]	[NR]
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate 2-fluorophenol	%	[NT]	[NT]	53456-18	124%
Surrogate Phenol-d ₆	%	[NT]	[NT]	53456-18	110%
Surrogate Nitrobenzene-d ₅	%	[NT]	[NT]	53456-18	107%

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QUALITYCONTROL SVOCs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
<i>Surrogate</i> 2-fluorobiphenyl	%	[NT]	[NT]	53456-18	83%
<i>Surrogate</i> 2,4,6-Tribromophenol	%	[NT]	[NT]	53456-18	67%
<i>Surrogate</i> p-Terphenyl-d14	%	[NT]	[NT]	53456-18	89%
QUALITYCONTROL Organochlorine Pesticides in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53456-18	28/03/2011
Date analysed	-	[NT]	[NT]	53456-18	29/03/2011
HCB	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	[NT]	[NT]	53456-18	106%
gamma-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	[NT]	[NT]	53456-18	88%
Heptachlor	mg/kg	[NT]	[NT]	53456-18	106%
delta-BHC	mg/kg	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	[NT]	[NT]	53456-18	99%
Heptachlor Epoxide	mg/kg	[NT]	[NT]	53456-18	107%
gamma-Chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	[NT]	[NT]	53456-18	87%
Dieldrin	mg/kg	[NT]	[NT]	53456-18	106%
Endrin	mg/kg	[NT]	[NT]	53456-18	103%
pp-DDD	mg/kg	[NT]	[NT]	53456-18	88%
Endosulfan II	mg/kg	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	[NT]	[NT]	53456-18	101%
Methoxychlor	mg/kg	[NT]	[NT]	[NR]	[NR]
<i>Surrogate</i> TCLMX	%	[NT]	[NT]	53456-18	102%

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QUALITYCONTROL PCBs in Soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53456-18	28/03/2011
Date analysed	-	[NT]	[NT]	53456-18	29/03/2011
Arochlor 1016	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1221*	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	[NT]	[NT]	53456-18	127%
Arochlor 1260	mg/kg	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%	[NT]	[NT]	53456-18	102%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	53456-17	29/03/2011 29/03/2011	LCS-2	29/03/2011
Date analysed	-	53456-17	29/03/2011 29/03/2011	LCS-2	29/03/2011
Arsenic	mg/kg	53456-17	8 6 RPD: 29	LCS-2	106%
Antimony	mg/kg	53456-17	<7 <7	LCS-2	110%
Beryllium	mg/kg	53456-17	<1 <1	LCS-2	101%
Cadmium	mg/kg	53456-17	<0.5 <0.5	LCS-2	108%
Copper	mg/kg	53456-17	51 36 RPD: 34	LCS-2	106%
Cobalt	mg/kg	53456-17	8 5 RPD: 46	LCS-2	104%
Lead	mg/kg	53456-17	160 240 RPD: 40	LCS-2	104%
Mercury	mg/kg	53456-17	<0.1 <0.1	LCS-2	114%
Molybdenum	mg/kg	53456-17	<1 <1	LCS-2	104%
Nickel	mg/kg	53456-17	20 14 RPD: 35	LCS-2	107%
Tin	mg/kg	53456-17	3 3 RPD: 0	LCS-2	104%
Selenium	mg/kg	53456-17	<2 <2	LCS-2	103%
Zinc	mg/kg	53456-17	140 92 RPD: 41	LCS-2	105%
Chromium	mg/kg	53456-17	14 9 RPD: 43	LCS-2	106%
Manganese	mg/kg	53456-17	160 130 RPD: 21	LCS-2	110%
Vanadium	mg/kg	53456-17	25 17 RPD: 38	LCS-2	104%
Sulphur	mg/kg	53456-17	220 210 RPD: 5	LCS-2	101%
Phosphorus	mg/kg	53456-17	240 220 RPD: 9	LCS-2	99%

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QUALITYCONTROL Miscellaneous Inorg - soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date prepared	-	[NT]	[NT]	53456-17	28/03/2011
Date analysed	-	[NT]	[NT]	53456-17	30/03/2011
Total Cyanide	mg/kg	[NT]	[NT]	53456-17	96%
Nitrate as N in soil	mg/kg	[NT]	[NT]	[NR]	[NR]
Sulphate, SO4 1:5 soil:water	mg/kg	[NT]	[NT]	[NR]	[NR]
Hexavalent Chromium, Cr ⁶⁺	mg/kg	[NT]	[NT]	53456-17	93%
QUALITYCONTROL sTRH in Soil (C10-C36)	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date extracted	-	[NT]	[NT]	53456-18	28/03/2011
Date analysed	-	[NT]	[NT]	53456-18	28/03/2011
TRHC ₁₀ - C ₁₄	mg/kg	[NT]	[NT]	53456-18	66%
TRHC ₁₅ - C ₂₈	mg/kg	[NT]	[NT]	53456-18	71%
TRHC ₂₉ - C ₃₆	mg/kg	[NT]	[NT]	53456-18	60%
Surrogate o-Terphenyl	%	[NT]	[NT]	53456-18	86%
QUALITYCONTROL Acid Extractable metals in soil	UNITS	Dup. Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Spike % Recovery
Date digested	-	[NT]	[NT]	53456-18	29/03/2011
Date analysed	-	[NT]	[NT]	53456-18	29/03/2011
Arsenic	mg/kg	[NT]	[NT]	53456-18	103%
Antimony	mg/kg	[NT]	[NT]	53456-18	89%
Beryllium	mg/kg	[NT]	[NT]	53456-18	93%
Cadmium	mg/kg	[NT]	[NT]	53456-18	99%
Copper	mg/kg	[NT]	[NT]	53456-18	103%
Cobalt	mg/kg	[NT]	[NT]	53456-18	94%
Lead	mg/kg	[NT]	[NT]	53456-18	88%
Mercury	mg/kg	[NT]	[NT]	53456-18	113%
Molybdenum	mg/kg	[NT]	[NT]	53456-18	98%
Nickel	mg/kg	[NT]	[NT]	53456-18	96%
Tin	mg/kg	[NT]	[NT]	53456-18	94%
Selenium	mg/kg	[NT]	[NT]	53456-18	98%
Zinc	mg/kg	[NT]	[NT]	53456-18	86%
Chromium	mg/kg	[NT]	[NT]	53456-18	99%
Manganese	mg/kg	[NT]	[NT]	53456-18	#
Vanadium	mg/kg	[NT]	[NT]	53456-18	96%
Sulphur	mg/kg	[NT]	[NT]	53456-18	#
Phosphorus	mg/kg	[NT]	[NT]	53456-18	#

Report Comments:

Asbestos: A portion of the supplied sample was sub-sampled for asbestos according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 30-40g of sample in it's own container.

Acid Extractable Metals in Soil: # Percent recovery is not possible to report for Manganese for sample #18 due to the high concentration of the element in the sample. However an acceptable recovery was obtained for the LCS.

Low spike recovery was obtained for sample 18 for Phosphorus. The sample was re-digested and re-spiked and the low recovery was confirmed. This is due to the inhomogeneous nature of the sample for this particular element. However, an acceptable recovery was obtained for the LCS.

Acid Extractable Metals in Soil: The duplicate result is greater than the acceptable RPD. Reanalysis indicates possible sample heterogeneity.

Asbestos ID was analysed by Approved Identifier: Matt Mansfield
 Asbestos ID was authorised by Approved Signatory: Matt Mansfield

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

Aileen Hie

From: Ellen.Swanson@ghd.com
Sent: Monday, 18 April 2011 02:32 PM
To: Aileen Hie
Subject: Additional analysis - 2120474, Pacific Brands

53456

Hi Aileen,

Could I please order the following additional analysis for some samples that we have on hold.

TCLP for Lead in sample TP40/0.5
TCLP for Nickel in samples TP35/0.1, HA34/0.15 and HA29/0.13

Thanks.

Regards,

Ellen Swanson
Graduate Environmental Scientist

GHD

T: 61 2 9239 7068 | F: 61 2 9239 7199 | V: 217068 | E: ellen.swanson@ghd.com
Level 15 133 Castlereagh St Sydney NSW 2000 Australia | <http://www.ghd.com/>

[Water](#) | [Energy & Resources](#) | [Environment](#) | [Property & Buildings](#) | [Transportation](#)

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This e-mail has been scanned for viruses by MessageLabs.

EnviroLab Ref: 53456A

Due: 28/4/11

std T/A



Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
enquiries@envirolabservices.com.au
www.envirolabservices.com.au

CERTIFICATE OF ANALYSIS

53456-A

Client:

GHD Pty Ltd (Sydney)

Level 15, 133 Castlereagh St
Sydney
NSW 2000

Attention: Amy Dobson / Ellen Swanson

Sample log in details:

Your Reference:	2120474, Phase 2
No. of samples:	Additional Testing on 1 Soil
Date samples received / completed instructions received	25/03/11 / 18/04/11

Analysis Details:

Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date: 28/04/11 / 20/04/11


Date of Preliminary Report: Not Issued

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This document is issued in accordance with NATA's accreditation requirements.

Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:


Rhian Morgan
Reporting Supervisor

Metals in TCLP USEPA 1311		
Our Reference:	UNITS	53456-A-17
Your Reference	-----	TP40
Depth	-----	0.5
Date Sampled		25/03/2011
Type of sample		Soil
Date extracted	-	19/04/2011
Date analysed	-	19/04/2011
pH of soil for fluid# determ.	pH units	8.9
pH of soil for fluid # determ. (acid)	pH units	1.7
Extraction fluid used	-	1
pH of final Leachate	pH units	5.0
Lead in TCLP	mg/L	0.07

MethodID	Methodology Summary
Inorg-004	Toxicity Characteristic Leaching Procedure (TCLP) using AS 4439 and USEPA 1311.
EXTRACT.7	Toxicity Characteristic Leaching Procedure (TCLP).
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA 21st ED, 4500-H+.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.

Client Reference: 2120474, Phase 2

QUALITY CONTROL	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results	Spike Sm#	Spike % Recovery
Metals in TCLP USEPA1311						Base II Duplicate II %RPD		
Date extracted	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Date analysed	-			19/04/2011	[NT]	[NT]	LCS-1	19/04/2011
Lead in TCLP	mg/L	0.03	Metals-020 ICP-AES	<0.03	[NT]	[NT]	LCS-1	89%

Report Comments:

Asbestos ID was analysed by Approved Identifier: Not applicable for this job
 Asbestos ID was authorised by Approved Signatory: Not applicable for this job

INS: Insufficient sample for this test	PQL: Practical Quantitation Limit	NT: Not tested
NA: Test not required	RPD: Relative Percent Difference	NA: Test not required
<: Less than	>: Greater than	LCS: Laboratory Control Sample

Quality Control Definitions

Blank: This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.

Duplicate: This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.

Matrix Spike : A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.

LCS (Laboratory Control Sample) : This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.

Surrogate Spike: Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.

Matrix Spikes and LCS: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

Telephone: (02) 9239 7100

Environmental Division
Sydney
Work Order

ES1106282



Telephone : + 61-2-8784 8555

YSIS REQUEST FORM

ABN 39 008 488 373

Project No. 2120474 Phone No. 04 32805099
 Project Name Phase 2 Environmental Site Assessment Fax No. 02 9239 7195
 Project Manager Amy Dobson
 Contact Name Ellen Swanson Email amy.dobson@ghd.com
ellen.swanson@ghd.com

Sent to Lab: Envirolab Services
 Address: 12 Ashley Street
CHATSWOOD NSW 2067
 Fax: 02 9910 6201

required: standard TAT
 Date Submitted: 23/03/11
 Page 3 of 3
 Attention: Aileen Hie Phone: 02 9910 6200

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX					PRESERVATION			ANALYSIS REQUIRED						COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9		10	
21	TP06_3.0	22.3.11	1	Jar		✓	✓				Hold									1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
22	TP09_0.1					✓	✓				Hold									2=MAH
23	TP09_0.5					✓	✓													3=TPH
24	TP09_1.0					✓	✓			✓	✓	✓	✓							4= PAH
25	TP09_2.5					✓	✓				Hold									5= PCB
26	[REDACTED]																			
27	RB1	"	4	2x vials 1x Amber 1x Plastic	✓		✓			✓	✓	✓	✓							6=VOC & SVOC
28	Trip Blank 1	"	1	Jar		✓	✓				✓									7= Pesticides
																				8= Asbestos
																				9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
																				10= NEPA Screen.

Subson / Forward Lab / Split WO
 Lab / Analysis: ACS by Shree / Sulphur / Total S
 Organised By / Date:
 Relinquished By / Date:
 Comnote / Courier:
 WO No:
 Attach By PO / Internal Sheet:

RELINQUISHED BY					RECEIVED BY				
Name	Organisation	Date	Time	Signed	Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	23/03/11	0930	[Signature]	[Signature]	ACS	24/3/11	16:30	[Signature]
JHie	ELS	24/3/11	12:00	[Signature]	[Signature]	ACS	24/3/11	16:30	[Signature]

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form

Phoung Tran

From: Angela Pavlovic
Sent: Friday, 25 March 2011 1:59 PM
To: Phoung Tran
Cc: ADAM.TILLING@GHD.COM
Subject: FW: NEPM Screen
Importance: High

Hi Phoung,

As per my conversation with Adam, please remove SVOC and VOC from the list below and analyse the rest as is.

Polycyclic Aromatic Hydrocarbons
 Organochlorine Pesticides
 Polychlorinated Biphenyls
 Semivolatile Organics *Not required as per ~~client~~ client on 25/3/11*
 Heavy Metals (as per other samples) - *As, Sb, Be, Cd, Cu, Co, Pb*
 Cyanide (total)
 Nitrate (as N) *Sn, Se, Zn, Cr, Mn, V*
 Phosphate total (P)
 Sulphate (S)
 Mercury
 TRH
 Total Sulphur(S)
 Chromium (hexavalent)
 Volatile Organics *Not required as per Adam on 25/3/11*
 Phenols (Halogenated)
 Phenols (non-Halogenated)

Thank you :)

Angela.

From: Angela Pavlovic
Sent: Friday, 25 March 2011 12:37 PM
To: 'ADAM.TILLING@GHD.COM'
Subject: NEPM Screen
Importance: High

Hi Adam,

I could not see a phone number, but just wanted to confirm a few things with you as per your email (attached).

For VOC and SVOC, did you want the whole scan? SVOC scan covers PAH and phenols.

Feel free to contact me as per below.

Many thanks,

How was your customer experience? Please send us your feedback

25/03/2011



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1106282	Page	: 1 of 7
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 24-MAR-2011
Sampler	: ----	Issue Date	: 31-MAR-2011
Site	: ----		
Quote number	: EN/005/10	No. of samples received	: 1
		No. of samples analysed	: 1

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Celine Conceicao	Spectroscopist	Sydney Inorganics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Organics Co-ordinator	Sydney Organics
Stephen Hislop	Senior Inorganic Chemist	Stafford Minerals - AY



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

When 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.

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

LOR = Limit of reporting

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

- **EG005T: LCS recovery for Nickel falls outside ALS Dynamic Control Limit. However, it is within the acceptance criteria based on ALS DQO. No further action is required.**
- **EG005T: Sample ES1106308001 shows poor precision for manganese due to sample heterogeneity.**



Analytical Results

Sub-Matrix: **SOIL**

				Client sample ID	QA02				
				Client sampling date / time	22-MAR-2011 15:00				
Compound	CAS Number	LOR	Unit	ES1106282-001					
EA055: Moisture Content									
^ Moisture Content (dried @ 103°C)	----	1.0	%	41.1					
ED040N: Sulfate - Calcium Phosphate Soluble (NEPM)									
Sulfate as SO4 2-	14808-79-8	50	mg/kg	<50					
ED042T: Total Sulfur by LECO									
Sulfur - Total as S (LECO)	----	0.01	%	0.10					
EG005T: Total Metals by ICP-AES									
Antimony	7440-36-0	5	mg/kg	<5					
Arsenic	7440-38-2	5	mg/kg	<5					
Barium	7440-39-3	10	mg/kg	60					
Beryllium	7440-41-7	1	mg/kg	3					
Boron	7440-42-8	50	mg/kg	<50					
Cadmium	7440-43-9	1	mg/kg	<1					
Chromium	7440-47-3	2	mg/kg	8					
Cobalt	7440-48-4	2	mg/kg	4					
Copper	7440-50-8	5	mg/kg	22					
Lead	7439-92-1	5	mg/kg	17					
Manganese	7439-96-5	5	mg/kg	25					
Molybdenum	7439-98-7	2	mg/kg	<2					
Nickel	7440-02-0	2	mg/kg	16					
Selenium	7782-49-2	5	mg/kg	<5					
Tin	7440-31-5	5	mg/kg	<5					
Vanadium	7440-62-2	5	mg/kg	31					
Zinc	7440-66-6	5	mg/kg	36					
EG035T: Total Recoverable Mercury by FIMS									
Mercury	7439-97-6	0.1	mg/kg	0.1					
EG048: Hexavalent Chromium (Alkaline Digest)									
Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5					
EG094T: Total metals in Fresh water by ORC-ICPMS									
Free Cyanide	----	1	mg/kg	<1					
EK026G: Total Cyanide By Discrete Analyser									
Total Cyanide	57-12-5	1	mg/kg	<1					
EK058G: Nitrate as N by Discrete Analyser									
^ Nitrate as N (Sol.)	----	0.1	mg/kg	0.1					
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	2	mg/kg	211					
EP066: Polychlorinated Biphenyls (PCB)									



Analytical Results

Sub-Matrix: SOIL

Client sample ID

Client sampling date / time

				QA02	----	----	----	----
				22-MAR-2011 15:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES1106282-001	----	----	----	----
EP066: Polychlorinated Biphenyls (PCB) - Continued								
Total Polychlorinated biphenyls	----	0.10	mg/kg	<0.10	----	----	----	----
EP068A: Organochlorine Pesticides (OC)								
alpha-BHC	319-84-6	0.05	mg/kg	<0.05	----	----	----	----
Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	----	----	----	----
beta-BHC	319-85-7	0.05	mg/kg	<0.05	----	----	----	----
gamma-BHC	58-89-9	0.05	mg/kg	<0.05	----	----	----	----
delta-BHC	319-86-8	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor	76-44-8	0.05	mg/kg	<0.05	----	----	----	----
Aldrin	309-00-2	0.05	mg/kg	<0.05	----	----	----	----
Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	----	----	----	----
trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	----	----	----	----
alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	----	----	----	----
cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	----	----	----	----
Dieldrin	60-57-1	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	----	----	----	----
Endrin	72-20-8	0.05	mg/kg	<0.05	----	----	----	----
beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	----	----	----	----
Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	----	----	----	----
Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	----	----	----	----
4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	----	----	----	----
Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	----	----	----	----
Methoxychlor	72-43-5	0.2	mg/kg	<0.2	----	----	----	----
EP075(SIM)A: Phenolic Compounds								
Phenol	108-95-2	0.5	mg/kg	<0.5	----	----	----	----
2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	----	----	----	----
2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	----	----	----	----
3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	----	----	----	----
2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	----	----	----	----
2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	----	----	----	----
2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	----	----	----	----
2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	----	----	----	----
4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	----	----	----	----
2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	----	----	----	----
2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	----	----	----	----
Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Naphthalene	91-20-3	0.5	mg/kg	<0.5	----	----	----	----



Analytical Results

Sub-Matrix: SOIL

Client sample ID

QA02

Client sampling date / time

22-MAR-2011 15:00

Compound	CAS Number	LOR	Unit	ES1106282-001				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
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)fluoranthene	205-99-2	0.5	mg/kg	<0.5	----	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	----	----	----	----
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	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	----	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	----	----	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	----	----	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	----	----	----	----
EP080: BTEX								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----
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	0.5	mg/kg	<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	----
EP066S: PCB Surrogate								
Decachlorobiphenyl	2051-24-3	0.1	%	124	----	----	----	----
EP068S: Organochlorine Pesticide Surrogate								
Dibromo-DDE	21655-73-2	0.1	%	127	----	----	----	----
EP068T: Organophosphorus Pesticide Surrogate								
DEF	78-48-8	0.1	%	110	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	85.4	----	----	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	83.6	----	----	----	----
2,4,6-Tribromophenol	118-79-6	0.1	%	70.9	----	----	----	----



Analytical Results

Sub-Matrix: **SOIL**

Client sample ID

Client sampling date / time

				QA02	----	----	----	----
				22-MAR-2011 15:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES1106282-001	----	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	97.4	----	----	----	----
Anthracene-d10	1719-06-8	0.1	%	99.1	----	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	106	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	114	----	----	----	----
Toluene-D8	2037-26-5	0.1	%	123	----	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	119	----	----	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP066S: PCB Surrogate			
Decachlorobiphenyl	2051-24-3	30.8	155.7
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	19.5	167.0
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	22.7	163.5
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	56.3	133.3
2-Chlorophenol-D4	93951-73-6	53.8	133.8
2,4,6-Tribromophenol	118-79-6	23.1	134.9
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	58.9	132.7
Anthracene-d10	1719-06-8	55.0	137.6
4-Terphenyl-d14	1718-51-0	54.0	147.8
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.0



Environmental Division

QUALITY CONTROL REPORT

Work Order	: ES1106282	Page	: 1 of 12
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
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Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 24-MAR-2011
C-O-C number	: ----	Issue Date	: 31-MAR-2011
Sampler	: ----	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1
Quote number	: EN/005/10		

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

This Quality Control Report contains the following information:

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



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Celine Conceicao	Spectroscopist	Sydney Inorganics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Organics Co-ordinator	Sydney Organics
Stephen Hislop	Senior Inorganic Chemist	Stafford Minerals - AY



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

Key :
Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Laboratory Duplicate (DUP) Report

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

Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 1724291)									
ES1106228-010	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	15.0	16.8	11.2	0% - 50%
ES1106283-007	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	23.1	21.8	5.9	0% - 20%
ED040N: Sulfate - Calcium Phosphate Soluble (NEPM) (QC Lot: 1728339)									
ES1106282-001	QA02	ED040N: Sulfate as SO4 2-	14808-79-8	50	mg/kg	<50	<50	0.0	No Limit
ED042T: Total Sulfur by LECO (QC Lot: 1729694)									
ES1106282-001	QA02	ED042T: Sulfur - Total as S (LECO)	----	0.01	%	0.10	0.12	15.9	0% - 50%
EG005T: Total Metals by ICP-AES (QC Lot: 1724874)									
ES1106282-001	QA02	EG005T: Beryllium	7440-41-7	1	mg/kg	3	3	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	60	60	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	8	6	36.6	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	4	4	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	16	15	7.6	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	22	21	7.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	17	16	7.3	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	25	22	12.9	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	31	21	36.0	No Limit
EG005T: Zinc	7440-66-6	5	mg/kg	36	33	7.3	No Limit		
EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit		
ES1106308-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Barium	7440-39-3	10	mg/kg	20	20	0.0	No Limit
		EG005T: Chromium	7440-47-3	2	mg/kg	8	6	23.2	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	4	4	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	6	6	0.0	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	<5	<5	0.0	No Limit
EG005T: Lead	7439-92-1	5	mg/kg	6	8	32.4	No Limit		



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EG005T: Total Metals by ICP-AES (QC Lot: 1724874) - continued									
ES1106308-001	Anonymous	EG005T: Manganese	7439-96-5	5	mg/kg	110	87	# 23.2	0% - 50%
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	8	8	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	74	76	2.6	0% - 50%
		EG005T: Boron	7440-42-8	50	mg/kg	<50	<50	0.0	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1724875)									
ES1106282-001	QA02	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	0.0	No Limit
ES1106353-004	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EG048: Hexavalent Chromium (Alkaline Digest) (QC Lot: 1725785)									
ES1106282-001	QA02	EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EK025G: Free cyanide by Discrete Analyser (QC Lot: 1724149)									
ES1106282-001	QA02	EK025G: Free Cyanide	----	1	mg/kg	<1	<1	0.0	No Limit
EK026G: Total Cyanide By Discrete Analyser (QC Lot: 1725225)									
ES1106223-001	Anonymous	EK026G: Total Cyanide	57-12-5	1	mg/kg	<1	<1	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 1724026)									
ES1106137-002	Anonymous	EK067G: Total Phosphorus as P	----	2	mg/kg	194	191	1.8	0% - 20%
EP066: Polychlorinated Biphenyls (PCB) (QC Lot: 1724987)									
ES1106283-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.10	mg/kg	<0.10	<0.10	0.0	No Limit
ES1106309-006	Anonymous	EP066: Total Polychlorinated biphenyls	----	0.10	mg/kg	<0.10	<0.10	0.0	No Limit
EP068A: Organochlorine Pesticides (OC) (QC Lot: 1724986)									
ES1106283-001	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP068A: Organochlorine Pesticides (OC) (QC Lot: 1724986) - continued									
ES1106283-001	Anonymous	EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
ES1106309-006	Anonymous	EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDE	72-55-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDD	72-54-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	<0.05	0.0	No Limit
		EP068: 4.4'-DDT	50-29-3	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	<0.2	0.0	No Limit		
EP075(SIM)A: Phenolic Compounds (QC Lot: 1723328)									
ES1106286-021	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2.4.5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	<1.0	0.0	No Limit
		EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	<2.0	0.0	No Limit
		ES1106286-031	Anonymous	EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	<0.5
EP075(SIM): 2-Chlorophenol	95-57-8			0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)A: Phenolic Compounds (QC Lot: 1723328) - continued									
ES1106286-031	Anonymous	EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	<1.0	0.0	No Limit
EP075(SIM): Pentachlorophenol	87-86-5	2.0	mg/kg	<2.0	<2.0	0.0	No Limit		
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1723328)									
ES1106286-021	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1,2,3-cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1106286-031	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1723328) - continued									
ES1106286-031	Anonymous	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1723312)									
ES1106308-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
ES1106353-003	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1723327)									
ES1106286-021	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1106286-031	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
EP080: BTEX (QC Lot: 1723312)									
ES1106308-001	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		
ES1106353-003	Anonymous	EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
			106-42-3						
	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit		



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

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

Sub-Matrix: SOIL

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
Method: Compound	CAS Number	LOR	Unit	Result	Spike Concentration	Spike Recovery (%) LCS	Recovery Limits (%) Low High	
ED040N: Sulfate - Calcium Phosphate Soluble (NEPM) (QCLot: 1728339)								
ED040N: Sulfate as SO4 2-	14808-79-8	50	mg/kg	<50	----	----	----	----
ED042T: Total Sulfur by LECO (QCLot: 1729694)								
ED042T: Sulfur - Total as S (LECO)	----	0.01	%	<0.01	100 %	100	70	130
EG005T: Total Metals by ICP-AES (QCLot: 1724874)								
EG005T: Antimony	7440-36-0	5	mg/kg	<5	----	----	----	----
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.11 mg/kg	124	70	130
EG005T: Barium	7440-39-3	10	mg/kg	<10	137.41 mg/kg	126	70	130
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.51 mg/kg	116	70	130
EG005T: Boron	7440-42-8	50	mg/kg	<50	----	----	----	----
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.76 mg/kg	103	83.3	111
EG005T: Chromium	7440-47-3	2	mg/kg	<2	60.93 mg/kg	115	89.2	117
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	24.49 mg/kg	124	70	130
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.68 mg/kg	111	90.1	114
EG005T: Lead	7439-92-1	5	mg/kg	<5	54.76 mg/kg	108	85.2	111
EG005T: Manganese	7439-96-5	5	mg/kg	<5	135.60 mg/kg	110	70	130
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	----	----	----	----
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.23 mg/kg	# 120	88.3	116
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
EG005T: Tin	7440-31-5	5	mg/kg	<5	----	----	----	----
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	34.03 mg/kg	122	70	130
EG005T: Zinc	7440-66-6	5	mg/kg	<5	103.88 mg/kg	107	88.9	112
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1724875)								
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	1.4 mg/kg	80.3	67	118
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 1725785)								
EG048G: Hexavalent Chromium	18540-29-9	0.5	mg/kg	<0.5	40 mg/kg	97.0	70	130
EK025G: Free cyanide by Discrete Analyser (QCLot: 1724149)								
EK025G: Free Cyanide	----	1	mg/kg	<1	2.0 mg/kg	72.8	70	130
EK026G: Total Cyanide By Discrete Analyser (QCLot: 1725225)								
EK026G: Total Cyanide	57-12-5	1	mg/kg	<1	20.0 mg/kg	105	70	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 1724026)								
EK067G: Total Phosphorus as P	----	2	mg/kg	<2	442 mg/kg	91.5	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1724987)								
EP066: Total Polychlorinated biphenyls	----	0.1	mg/kg	<0.10	1 mg/kg	92.1	57.4	117



Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
				Result	Spike	Spike Recovery (%)		
					Concentration	LCS	Low	High
EP068A: Organochlorine Pesticides (OC) (QCLot: 1724986)								
EP068: alpha-BHC	319-84-6	0.05	mg/kg	<0.05	0.5 mg/kg	89.5	60.8	116
EP068: Hexachlorobenzene (HCB)	118-74-1	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	59.4	115
EP068: beta-BHC	319-85-7	0.05	mg/kg	<0.05	0.5 mg/kg	88.9	59.8	117
EP068: gamma-BHC	58-89-9	0.05	mg/kg	<0.05	0.5 mg/kg	104	59.8	118
EP068: delta-BHC	319-86-8	0.05	mg/kg	<0.05	0.5 mg/kg	92.0	65.8	114
EP068: Heptachlor	76-44-8	0.05	mg/kg	<0.05	0.5 mg/kg	87.9	65.6	115
EP068: Aldrin	309-00-2	0.05	mg/kg	<0.05	0.5 mg/kg	100	67	113
EP068: Heptachlor epoxide	1024-57-3	0.05	mg/kg	<0.05	0.5 mg/kg	94.8	65.6	113
EP068: trans-Chlordane	5103-74-2	0.05	mg/kg	<0.05	0.5 mg/kg	98.1	60.7	113
EP068: alpha-Endosulfan	959-98-8	0.05	mg/kg	<0.05	0.5 mg/kg	94.9	65.8	116
EP068: cis-Chlordane	5103-71-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.6	57.3	120
EP068: Dieldrin	60-57-1	0.05	mg/kg	<0.05	0.5 mg/kg	98.2	67.4	116
EP068: 4,4'-DDE	72-55-9	0.05	mg/kg	<0.05	0.5 mg/kg	105	67.5	114
EP068: Endrin	72-20-8	0.05	mg/kg	<0.05	0.5 mg/kg	88.0	63	121
EP068: beta-Endosulfan	33213-65-9	0.05	mg/kg	<0.05	0.5 mg/kg	96.3	66.1	117
EP068: 4,4'-DDD	72-54-8	0.05	mg/kg	<0.05	0.5 mg/kg	101	65.3	116
EP068: Endrin aldehyde	7421-93-4	0.05	mg/kg	<0.05	0.5 mg/kg	111	57.3	115
EP068: Endosulfan sulfate	1031-07-8	0.05	mg/kg	<0.05	0.5 mg/kg	97.8	63.6	119
EP068: 4,4'-DDT	50-29-3	0.2	mg/kg	<0.2	0.5 mg/kg	98.5	58.4	127
EP068: Endrin ketone	53494-70-5	0.05	mg/kg	<0.05	0.5 mg/kg	92.5	63.6	117
EP068: Methoxychlor	72-43-5	0.2	mg/kg	<0.2	0.5 mg/kg	76.4	50.4	132
EP075(SIM)A: Phenolic Compounds (QCLot: 1723328)								
EP075(SIM): Phenol	108-95-2	0.5	mg/kg	<0.5	4 mg/kg	111	73.9	115
EP075(SIM): 2-Chlorophenol	95-57-8	0.5	mg/kg	<0.5	4 mg/kg	106	80.2	115
EP075(SIM): 2-Methylphenol	95-48-7	0.5	mg/kg	<0.5	4 mg/kg	110	76.8	114
EP075(SIM): 3- & 4-Methylphenol	1319-77-3	1.0	mg/kg	<1.0	8 mg/kg	107	72	119
EP075(SIM): 2-Nitrophenol	88-75-5	0.5	mg/kg	<0.5	4 mg/kg	85.6	60.3	117
EP075(SIM): 2,4-Dimethylphenol	105-67-9	0.5	mg/kg	<0.5	4 mg/kg	107	74.5	119
EP075(SIM): 2,4-Dichlorophenol	120-83-2	0.5	mg/kg	<0.5	4 mg/kg	87.9	71.6	113
EP075(SIM): 2,6-Dichlorophenol	87-65-0	0.5	mg/kg	<0.5	4 mg/kg	94.6	74.8	115
EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	0.5	mg/kg	<0.5	4 mg/kg	95.9	76.4	114
EP075(SIM): 2,4,6-Trichlorophenol	88-06-2	0.5	mg/kg	<0.5	4 mg/kg	92.9	62.2	115
EP075(SIM): 2,4,5-Trichlorophenol	95-95-4	0.5	mg/kg	<0.5	4 mg/kg	92.9	68.9	112
EP075(SIM): Pentachlorophenol	87-86-5	1.0	mg/kg	<1.0	8 mg/kg	26.7	1.23	91.6
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1723328)								
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	# 114	81.9	113
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	107	79.6	113
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	101	81.5	112
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	108	79.9	112



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1723328) - continued									
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	112	79.4	114	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	108	81.1	112	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	107	78.8	113	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	108	78.9	113	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	102	77.2	112	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	104	79.8	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	100	71.8	118	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	109	74.2	117	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	104	76.4	113	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	99.3	71	113	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	96.7	71.7	113	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	97.7	72.4	114	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1723312)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	88.8	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1723327)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	88.6	75.2	116	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	200 mg/kg	88.1	75.3	113	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	84.6	72.6	117	
EP080: BTEX (QCLot: 1723312)									
EP080: Benzene	71-43-2	0.2	mg/kg	<0.2	1 mg/kg	96.5	63	121	
EP080: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	87.1	69	122	
EP080: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	93.7	61	117	
EP080: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	82.0	62	118	
	106-42-3								
EP080: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	95.0	63	117	



Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

				Matrix Spike (MS) Report			
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
					MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 1724874)							
ES1106282-001	QA02	EG005T: Arsenic	7440-38-2	50 mg/kg	88.4	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	93.8	70	130
		EG005T: Chromium	7440-47-3	50 mg/kg	92.6	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	99.5	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	95.5	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	94.8	70	130
		EG005T: Selenium	7782-49-2	50 mg/kg	99.8	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	95.8	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1724875)							
ES1106282-001	QA02	EG035T: Mercury	7439-97-6	5 mg/kg	83.3	70	130
EG048: Hexavalent Chromium (Alkaline Digest) (QCLot: 1725785)							
ES1106282-001	QA02	EG048G: Hexavalent Chromium	18540-29-9	40 mg/kg	82.9	70	130
EK025G: Free cyanide by Discrete Analyser (QCLot: 1724149)							
ES1106282-001	QA02	EK025G: Free Cyanide	----	2.0 mg/kg	107	70	130
EK026G: Total Cyanide By Discrete Analyser (QCLot: 1725225)							
ES1106223-001	Anonymous	EK026G: Total Cyanide	57-12-5	20.0 mg/kg	104	70	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 1724026)							
ES1106137-002	Anonymous	EK067G: Total Phosphorus as P	----	100 mg/kg	81.5	70	130
EP066: Polychlorinated Biphenyls (PCB) (QCLot: 1724987)							
ES1106283-001	Anonymous	EP066: Total Polychlorinated biphenyls	----	1 mg/kg	101	70	130
EP068A: Organochlorine Pesticides (OC) (QCLot: 1724986)							
ES1106283-001	Anonymous	EP068: gamma-BHC	58-89-9	0.5 mg/kg	102	75.65	110.44
		EP068: Heptachlor	76-44-8	0.5 mg/kg	90.9	72.2	106.71
		EP068: Aldrin	309-00-2	0.5 mg/kg	92.6	77.54	107.0
		EP068: Dieldrin	60-57-1	0.5 mg/kg	101	76.37	109.7
		EP068: Endrin	72-20-8	2 mg/kg	85.7	68.51	119.47
		EP068: 4.4'-DDT	50-29-3	2 mg/kg	81.3	67.12	118.10
EP075(SIM)A: Phenolic Compounds (QCLot: 1723328)							
ES1106286-021	Anonymous	EP075(SIM): Phenol	108-95-2	10 mg/kg	87.1	70	130
		EP075(SIM): 2-Chlorophenol	95-57-8	10 mg/kg	85.6	70	130
		EP075(SIM): 2-Nitrophenol	88-75-5	10 mg/kg	80.4	60	130
		EP075(SIM): 4-Chloro-3-Methylphenol	59-50-7	10 mg/kg	81.8	70	130
		EP075(SIM): Pentachlorophenol	87-86-5	10 mg/kg	66.8	20	130



Sub-Matrix: **SOIL**

				<i>Matrix Spike (MS) Report</i>			
<i>Laboratory sample ID</i>	<i>Client sample ID</i>	<i>Method: Compound</i>	<i>CAS Number</i>	<i>Spike</i>	<i>Spike Recovery (%)</i>	<i>Recovery Limits (%)</i>	
				<i>Concentration</i>	<i>MS</i>	<i>Low</i>	<i>High</i>
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1723328)							
ES1106286-021	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	86.7	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	98.4	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1723312)							
ES1106308-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	77.1	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1723327)							
ES1106286-021	Anonymous	EP071: C10 - C14 Fraction	----	640 mg/kg	94.7	70	130
		EP071: C15 - C28 Fraction	----	3140 mg/kg	86.8	70	130
		EP071: C29 - C36 Fraction	----	2860 mg/kg	93.5	70	130
EP080: BTEX (QCLot: 1723312)							
ES1106308-001	Anonymous	EP080: Benzene	71-43-2	2.5 mg/kg	83.9	70	130
		EP080: Toluene	108-88-3	2.5 mg/kg	85.1	70	130
		EP080: Ethylbenzene	100-41-4	2.5 mg/kg	83.1	70	130
		EP080: meta- & para-Xylene	108-38-3	2.5 mg/kg	82.5	70	130
			106-42-3				
		EP080: ortho-Xylene	95-47-6	2.5 mg/kg	83.1	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: ES1106282	Page	: 1 of 8
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 24-MAR-2011
C-O-C number	: ----	Issue Date	: 31-MAR-2011
Sampler	: ----	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1
Quote number	: EN/005/10		

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

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: SOIL

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	----	----	----	28-MAR-2011	05-APR-2011	✓
ED040N: Sulfate - Calcium Phosphate Soluble (NEPM)							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	31-MAR-2011	18-SEP-2011	✓	31-MAR-2011	18-SEP-2011	✓
ED042T: Total Sulfur by LECO							
Snap Lock Bag QA02	22-MAR-2011	31-MAR-2011	18-SEP-2011	✓	31-MAR-2011	18-SEP-2011	✓
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	18-SEP-2011	✓	29-MAR-2011	18-SEP-2011	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	19-APR-2011	✓	29-MAR-2011	19-APR-2011	✓
EG048: Hexavalent Chromium (Alkaline Digest)							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	29-MAR-2011	19-APR-2011	✓	29-MAR-2011	05-APR-2011	✓
EG094T: Total metals in Fresh water by ORC-ICPMS							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	29-MAR-2011	✓	28-MAR-2011	11-APR-2011	✓
EK026G: Total Cyanide By Discrete Analyser							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	29-MAR-2011	✓	29-MAR-2011	11-APR-2011	✓
EK067G: Total Phosphorus as P by Discrete Analyser							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	18-SEP-2011	✓	28-MAR-2011	18-SEP-2011	✓
EP066: Polychlorinated Biphenyls (PCB)							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	05-APR-2011	✓	29-MAR-2011	07-MAY-2011	✓



Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP068A: Organochlorine Pesticides (OC)							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	28-MAR-2011	05-APR-2011	✓	29-MAR-2011	07-MAY-2011	✓
EP075(SIM)A: Phenolic Compounds							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	25-MAR-2011	05-APR-2011	✓	28-MAR-2011	04-MAY-2011	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	25-MAR-2011	05-APR-2011	✓	28-MAR-2011	04-MAY-2011	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	25-MAR-2011	05-APR-2011	✓	28-MAR-2011	04-MAY-2011	✓
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	25-MAR-2011	05-APR-2011	✓	30-MAR-2011	05-APR-2011	✓
EP080: BTEX							
Soil Glass Jar - Unpreserved QA02	22-MAR-2011	25-MAR-2011	05-APR-2011	✓	30-MAR-2011	05-APR-2011	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Free Cyanide By Discrete Analyser	EK025G	1	1	100.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	3	33.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Moisture Content	EA055-103	2	18	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	2	17	11.8	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	2	12	16.7	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Sulfate - Calcium Phosphate Soluble	ED040N	1	1	100.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Sulfur - Total as S (LECO)	ED042T	1	1	100.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Cyanide By Discrete Analyser	EK026G	1	4	25.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	15	13.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Phosphorus By Discrete Analyser	EK067G	1	6	16.7	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
Free Cyanide By Discrete Analyser	EK025G	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	3	33.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	5.9	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	12	8.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Sulfur - Total as S (LECO)	ED042T	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Cyanide By Discrete Analyser	EK026G	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	15	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Phosphorus By Discrete Analyser	EK067G	1	6	16.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
Free Cyanide By Discrete Analyser	EK025G	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	3	33.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	5.9	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	12	8.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Sulfate - Calcium Phosphate Soluble	ED040N	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Sulfur - Total as S (LECO)	ED042T	1	1	100.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Cyanide By Discrete Analyser	EK026G	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	15	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Phosphorus By Discrete Analyser	EK067G	1	6	16.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement



Matrix: **SOIL** Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Method Blanks (MB) - Continued							
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
Free Cyanide By Discrete Analyser	EK025G	1	1	100.0	5.0	✓	ALS QCS3 requirement
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	1	3	33.3	5.0	✓	ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	20	5.0	5.0	✓	ALS QCS3 requirement
Pesticides by GCMS	EP068	1	17	5.9	5.0	✓	ALS QCS3 requirement
Polychlorinated Biphenyls (PCB)	EP066	1	12	8.3	5.0	✓	ALS QCS3 requirement
Total Cyanide By Discrete Analyser	EK026G	1	4	25.0	5.0	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	15	6.7	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	ALS QCS3 requirement
Total Phosphorus By Discrete Analyser	EK067G	1	6	16.7	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	20	5.0	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	20	5.0	5.0	✓	ALS QCS3 requirement



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Sulfate - Calcium Phosphate Soluble	ED040N	SOIL	The sample is extracted with a calcium phosphate solution. The phosphate ion displaces the adsorbed sulfate while calcium ions depress the extraction of interfering S from soil organic matter. SO ₄ in the extract is determined by ICPAES and reported as dry weight in the original soil. This method is compliant with NEPM (1999) Schedule B(3) (Method 406)
Sulfur - Total as S (LECO)	ED042T	SOIL	In-house. Dried and pulverised sample is combusted in a LECO furnace at 1350C in the presence of strong oxidants / catalysts. The evolved S (as SO ₂) is measured by infra-red detector
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
Hexavalent Chromium by Alkaline Digestion and DA Finish	EG048G	SOIL	USEPA SW846, Method 3060A. Hexavalent chromium is extracted by alkaline digestion. The digest is determined by photometrically by automatic discrete analyser, following pH adjustment. The instrument uses colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Appdx. 2)
Free Cyanide By Discrete Analyser	EK025G	SOIL	APHA 21st 4500 CN- C & N. Caustic leach extracts of the sample are distilled at natural pH. The distillates are analyzed for CN by Discrete Analyser.
Total Cyanide By Discrete Analyser	EK026G	SOIL	APHA 21st 4500 CN - C & N. Caustic leach extracts of the sample are distilled with sulphuric acid, converting all CN species to HCN. The distillates are analyzed for CN by Discrete Analyser. This method is compliant with NEPM (1999) Schedule B(3) (Method 403)
Nitrite as N - Soluble by Discrete Analyser	EK057G	SOIL	APHA 21st ed., 4500 NO ₃ - B. Nitrite in a water extract is determined by direct colourimetry by Discrete Analyser.
Nitrate as N - Soluble by Discrete Analyser	EK058G	SOIL	APHA 21st ed., 4500 NO ₃ --F. Nitrate in the 1:5 soil:water extract is reduced to nitrite by way of a cadmium reduction column followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results.
Nitrite and Nitrate as N (NO _x)- Soluble by Discrete Analyser	EK059G	SOIL	APHA 21st ed., 4500 NO ₃ - F. Combined oxidised Nitrogen (NO ₂ +NO ₃) in a water extract is determined by Cadmium Reduction, and direct colourimetry by Discrete Analyser.
Total Phosphorus By Discrete Analyser	EK067G	SOIL	APHA 21st ed., 4500 P-B&F This procedure involves sulfuric acid digestion and quantification using Discrete Analyser.
Polychlorinated Biphenyls (PCB)	EP066	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 504)
Pesticides by GCMS	EP068	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. This technique is compliant with NEPM (1999) Schedule B(3) (Method 504,505)



Analytical Methods	Method	Matrix	Method Descriptions
TPH - Semivolatile Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)

Preparation Methods	Method	Matrix	Method Descriptions
Calcium Phosphate Extraction for Sulphate as SO ₄ ²⁻	ED040NPR	SOIL	The sample is extracted with a calcium phosphate solution. The phosphate ion displaces the adsorbed sulphate while calcium ions depress the extraction of interfering S from soil organic matter. SO ₄ in the extract is determined by ICPAES and reported as dry weight in the original soil. This method is compliant with NEPM (1999) Schedule B(3) (Method 406)
Alkaline digestion for Hexavalent Chromium	EG048PR	SOIL	USEPA SW846, Method 3060A.
Free Cyanide Preparation Method	EK025 PR	SOIL	APHA 21st ed., 4500 CN C & N. Cyanides in the soil are directly distilled from the soil at natural pH using a steam distillation apparatus.
NaOH leach for TCN in Soils	EK026PR	SOIL	APHA 21st ed., 4500 CN- C & N. Samples are extracted by end-over-end tumbling with NaOH.
TKN/TP Digestion	EK061/EK067	SOIL	APHA 21st ed., 4500 Norg- D; APHA 21st ed., 4500 P - H. Macro Kjeldahl digestion.
1:5 solid / water leach for soluble analytes	EN34	SOIL	10 g of soil is mixed with 50 mL of distilled water and tumbled end over end for 1 hour. Water soluble salts are leached from the soil by the continuous suspension. Samples are settled and the water filtered off for analysis.
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option A - Concentrating)	ORG17A	SOIL	In-house, Mechanical agitation (tumbler). 20g of sample, Na ₂ SO ₄ and surrogate are extracted with 150mL 1:1 DCM/Acetone by end over end tumble. The solvent is decanted, dehydrated and concentrated (by KD) to the desired volume for analysis.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.



Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **SOIL**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Duplicate (DUP) RPDs							
EG005T: Total Metals by ICP-AES	ES1106308-001	Anonymous	Manganese	7439-96-5	23.2 %	0-20%	RPD exceeds LOR based limits
Laboratory Control Spike (LCS) Recoveries							
EG005T: Total Metals by ICP-AES	2028187-002	----	Nickel	7440-02-0	120 %	88.3-116%	Recovery greater than upper control limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons	2026008-007	----	Naphthalene	91-20-3	114 %	81.9-113%	Recovery greater than upper control limit

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Matrix Spike outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia Telephone: (02) 9239 7100 Fax: (02) 9239 7194 ABN 39 008 488 373

Project No. 2120474 Phone No. 04 32805099 Sent to Lab: Envirolab Services Date Required: standard TAT

Project Name Phase 2 Environmental Site Assessment Fax No. 02 9239 7195 Address: 12 Ashley Street Date Submitted: 24.03.11

Project Manager Amy Dobson CHATSWOOD NSW 2067 Attention: Aileen Hie Page 1 of 5

Contact Name Ellen Swanson Email amy.dobson@ghd.com; ellen.swanson@ghd.com Fax: 02 9910 6201 Phone: 02 9910 6200

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
1	TP45_0.1	23/3/11	1	Jar		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
2	TP45_0.5		1			✓				✓	✓	✓	✓											2=MAH
3	TP45_1.0		1			✓				Hold														3=TPH
4*						✓																		4=PAH
4	Trip Blank Z					✓					✓	✓	✓	✓										5=PCB
5	RBOZ		4	2x Vials 1x Amber 1x Plastic	✓					✓	✓	✓	✓											6=VOC & SVOC
6	HA32_0.6		1	Jar		✓				Hold														7= Pesticides
7	HA32_0.7					✓				Hold														8= Asbestos
8	HA32_1.0					✓				✓														9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
	HA32_1.0					✓																		



Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

Job No: 53366

Date received: 24/3 1045

Time received:

Received by:

Temp: Cool/Dry

Coating: Leak/Seal

Security: Intact/Broken

RELINQUISHED BY

RECEIVED BY

Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/03/11	0830	<i>[Signature]</i>

Name	Organisation	Date	Time	Signed
		24/3/11		<i>[Signature]</i>

RECEIVED BY

Name	Organisation	Date	Time	Signed
	Environmental Division Sydney	25/03/11	16:00	S.P. Patel

Environmental Division
Sydney
Work Order
ES1106406



Telephone : + 61-2-8784 8555

1g samples numbers correspond to those listed on this form



CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia Telephone: (02) 9239 7100 Fax: (02) 9239 7194 ABN 39 008 488 373

Project No. 2120474 Phone No. 04 32805099 Sent to Lab: Envirolab Services Date Required: standard TAT

Project Name Phase 2 Environmental Site Assessment Fax No. 02 9239 7195 Address: 12 Ashley Street Date Submitted: 24.03.11

Project Manager Amy Dobson CHATSWOOD NSW 2067 Attention: Aileen Hie Page 1 of 5

Contact Name Ellen Swanson Email amy.dobson@ghd.com; ellen.swanson@ghd.com Fax: 02 9910 6201 Phone: 02 9910 6200

SAMPLE No.	Date Sampled	No. of Containers	Container Type / Size	MATRIX					PRESERVATION					ANALYSIS REQUIRED										COMMENTS
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10						
1	TP45_0.1	23/3/11	1	Jar		✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	1= Metals (As, Sb, Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Se, Zn)
2	TP45_0.5				✓					✓	✓	✓	✓											2=MAH
3	TP45_1.0				✓					Hold														3=TPH
4*					✓																			4=PAH analysis
4	Trip Blank Z				✓																			5=PCB
5	RBOZ		4	2x Vials 1x Amber 1x Plastic	✓					✓	✓	✓	✓											6=VOC & SVOC
6	HA32_0.6		1	Jar		✓				Hold														7= Pesticides
7	HA32_0.7					✓				Hold														8= Asbestos
8	HA32_1.0					✓				✓														9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
	HA32_1.0					✓																		



Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: 9910 6200

Job No: 53366

Date received: 24/3 1045

Time received:

Received by:

Temp: Cool/Dry

Coating: Leak/Seal

Security: Intact/Broken

RELINQUISHED BY

RECEIVED BY

Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	24/03/11	0830	<i>[Signature]</i>

Name	Organisation	Date	Time	Signed
		24/3/11		<i>[Signature]</i>

RECEIVED BY

Name	Organisation	Date	Time	Signed
	Environmental Division Sydney	25/03/11	16:00	S.P. Patel

Environmental Division
Sydney
Work Order
ES1106406



Telephone : + 61-2-8784 8555

1g samples numbers correspond to those listed on this form



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1106406	Page	: 1 of 5
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 25-MAR-2011
Sampler	: ----	Issue Date	: 31-MAR-2011
Site	: ----		
Quote number	: EN/005/10	No. of samples received	: 1
		No. of samples analysed	: 1

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Celine Conceicao	Spectroscopist	Sydney Inorganics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Organics Co-ordinator	Sydney Organics



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

When 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.

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

LOR = Limit of reporting

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

- **EP075: 'Sum of PAH' is the sum of the USEPA 16 priority PAHs**



Analytical Results

Sub-Matrix: **SOIL**

Client sample ID

QA04

Client sampling date / time

23-MAR-2011 15:00

Compound	CAS Number	LOR	Unit	ES1106406-001				
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1.0	%	14.3	----	----	----	----
EG005T: Total Metals by ICP-AES								
Antimony	7440-36-0	5	mg/kg	<5	----	----	----	----
Arsenic	7440-38-2	5	mg/kg	6	----	----	----	----
Beryllium	7440-41-7	1	mg/kg	<1	----	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	----	----	----	----
Cobalt	7440-48-4	2	mg/kg	4	----	----	----	----
Copper	7440-50-8	5	mg/kg	32	----	----	----	----
Lead	7439-92-1	5	mg/kg	15	----	----	----	----
Molybdenum	7439-98-7	2	mg/kg	<2	----	----	----	----
Nickel	7440-02-0	2	mg/kg	4	----	----	----	----
Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----
Tin	7440-31-5	5	mg/kg	<5	----	----	----	----
Zinc	7440-66-6	5	mg/kg	39	----	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	<0.1	----	----	----	----
EP074A: Monocyclic Aromatic Hydrocarbons								
Benzene	71-43-2	0.2	mg/kg	<0.2	----	----	----	----
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	0.5	mg/kg	<0.5	----	----	----	----
Styrene	100-42-5	0.5	mg/kg	<0.5	----	----	----	----
ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	----	----	----	----
Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	----	----	----	----
n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	----	----	----	----
1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	----	----	----	----
sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	----	----	----	----
1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	----	----	----	----
tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	----	----	----	----
p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	----	----	----	----
n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
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	----	----	----	----



Analytical Results

Sub-Matrix: SOIL

Client sample ID

Client sampling date / time

				QA04				
				23-MAR-2011 15:00				
Compound	CAS Number	LOR	Unit	ES1106406-001				
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
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)fluoranthene	205-99-2	0.5	mg/kg	<0.5				
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5				
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				
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction		10	mg/kg	<10				
C10 - C14 Fraction		50	mg/kg	<50				
C15 - C28 Fraction		100	mg/kg	<100				
C29 - C36 Fraction		100	mg/kg	<100				
^ C10 - C36 Fraction (sum)		50	mg/kg	<50				
EP074S: VOC Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	80.0				
Toluene-D8	2037-26-5	0.1	%	116				
4-Bromofluorobenzene	460-00-4	0.1	%	101				
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	91.7				
2-Chlorophenol-D4	93951-73-6	0.1	%	88.3				
2,4,6-Tribromophenol	118-79-6	0.1	%	61.1				
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	85.1				
Anthracene-d10	1719-06-8	0.1	%	88.4				
4-Terphenyl-d14	1718-51-0	0.1	%	95.3				
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	102				
Toluene-D8	2037-26-5	0.1	%	115				
4-Bromofluorobenzene	460-00-4	0.1	%	105				



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP074S: VOC Surrogates			
1,2-Dichloroethane-D4	17060-07-0	70.1	130.9
Toluene-D8	2037-26-5	66.3	137.7
4-Bromofluorobenzene	460-00-4	60.3	136.3
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	56.3	133.3
2-Chlorophenol-D4	93951-73-6	53.8	133.8
2,4,6-Tribromophenol	118-79-6	23.1	134.9
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	58.9	132.7
Anthracene-d10	1719-06-8	55.0	137.6
4-Terphenyl-d14	1718-51-0	54.0	147.8
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.0



Environmental Division

QUALITY CONTROL REPORT

Work Order	: ES1106406	Page	: 1 of 8
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 25-MAR-2011
C-O-C number	: ----	Issue Date	: 31-MAR-2011
Sampler	: ----	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1
Quote number	: EN/005/10		

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

This Quality Control Report contains the following information:

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



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Celine Conceicao	Spectroscopist	Sydney Inorganics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics
Phalak Inthaksone	Organics Co-ordinator	Sydney Organics



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Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

Key :
Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 1726104)									
ES1106319-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	5.3	6.0	12.3	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 1725618)									
ES1106404-002	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	10	15	39.6	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	21	36	51.2	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	26	44.1	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	13	17	24.3	No Limit
ES1106407-003	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	6	5	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	26	25	0.0	0% - 50%
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	28	32	14.6	0% - 50%
		EG005T: Antimony	7440-36-0	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	24	14	52.2	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	72	74	2.8	0% - 50%
		EG005T: Lead	7439-92-1	5	mg/kg	28	29	0.0	No Limit
		EG005T: Selenium	7782-49-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	139	145	4.4	0% - 20%
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1725616)									
ES1106355-001	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.1	<0.1	0.0	No Limit
ES1106404-002	Anonymous	EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	<0.1	0.0	No Limit
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1724321)									
ES1106355-001	Anonymous	EP074: Benzene	71-43-2	0.2	mg/kg	<0.2	<0.2	0.0	No Limit
		EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: meta- & para-Xylene	108-38-3 106-42-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP074A: Monocyclic Aromatic Hydrocarbons (QC Lot: 1724321) - continued									
ES1106355-001	Anonymous	EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1724447)									
ES1106355-001	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1,2,3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
ES1106355-010	Anonymous	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: SOIL				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1724447) - continued									
ES1106355-010	Anonymous	EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a.h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g.h.i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1724320)									
ES1106355-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1724446)									
ES1106355-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1106355-010	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit



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

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

Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EG005T: Total Metals by ICP-AES (QCLot: 1725618)									
EG005T: Antimony	7440-36-0	5	mg/kg	<5	----	----	----	----	
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.11 mg/kg	125	70	130	
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.51 mg/kg	109	70	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.76 mg/kg	110	83.3	111	
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	24.49 mg/kg	110	70	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.68 mg/kg	108	90.1	114	
EG005T: Lead	7439-92-1	5	mg/kg	<5	54.76 mg/kg	102	85.2	111	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	----	----	----	----	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.23 mg/kg	112	88.3	116	
EG005T: Selenium	7782-49-2	5	mg/kg	<5	----	----	----	----	
EG005T: Tin	7440-31-5	5	mg/kg	<5	----	----	----	----	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	103.88 mg/kg	102	88.9	112	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1725616)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	1.4 mg/kg	72.1	67	118	
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1724321)									
EP074: Benzene	71-43-2	0.5	mg/kg	<0.5	1 mg/kg	99.9	64	126	
EP074: Toluene	108-88-3	0.5	mg/kg	<0.5	1 mg/kg	104	63	135	
EP074: Ethylbenzene	100-41-4	0.5	mg/kg	<0.5	1 mg/kg	95.0	64	124	
EP074: meta- & para-Xylene	108-38-3	0.5	mg/kg	<0.5	2 mg/kg	98.4	66	126	
	106-42-3								
EP074: Styrene	100-42-5	0.5	mg/kg	<0.5	1 mg/kg	89.8	67	121	
EP074: ortho-Xylene	95-47-6	0.5	mg/kg	<0.5	1 mg/kg	98.8	66	124	
EP074: Isopropylbenzene	98-82-8	0.5	mg/kg	<0.5	1 mg/kg	101	64	124	
EP074: n-Propylbenzene	103-65-1	0.5	mg/kg	<0.5	1 mg/kg	95.4	59	129	
EP074: 1,3,5-Trimethylbenzene	108-67-8	0.5	mg/kg	<0.5	1 mg/kg	98.1	63	125	
EP074: sec-Butylbenzene	135-98-8	0.5	mg/kg	<0.5	1 mg/kg	97.3	61	127	
EP074: 1,2,4-Trimethylbenzene	95-63-6	0.5	mg/kg	<0.5	1 mg/kg	95.5	62	126	
EP074: tert-Butylbenzene	98-06-6	0.5	mg/kg	<0.5	1 mg/kg	96.6	62	126	
EP074: p-Isopropyltoluene	99-87-6	0.5	mg/kg	<0.5	1 mg/kg	98.3	60	126	
EP074: n-Butylbenzene	104-51-8	0.5	mg/kg	<0.5	1 mg/kg	93.0	57	129	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1724447)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	107	81.9	113	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	102	79.6	113	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	98.7	81.5	112	



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report				
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1724447) - continued									
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	103	79.9	112	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	108	79.4	114	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	109	81.1	112	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	105	78.8	113	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	104	78.9	113	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	93.8	77.2	112	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	110	79.8	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	93.2	71.8	118	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	107	74.2	117	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	98.4	76.4	113	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	89.0	71	113	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	86.2	71.7	113	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	87.2	72.4	114	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1724320)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	109	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1724446)									
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	86.4	75.2	116	
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	200 mg/kg	84.4	75.3	113	
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	89.5	72.6	117	



Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
					MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 1725618)							
ES1106404-002	Anonymous	EG005T: Arsenic	7440-38-2	50 mg/kg	114	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	125	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	120	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	116	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	117	70	130
		EG005T: Selenium	7782-49-2	50 mg/kg	118	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	116	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1725616)							
ES1106355-001	Anonymous	EG035T: Mercury	7439-97-6	5 mg/kg	74.4	70	130
EP074A: Monocyclic Aromatic Hydrocarbons (QCLot: 1724321)							
ES1106355-001	Anonymous	EP074: Benzene	71-43-2	2.5 mg/kg	91.9	70	130
		EP074: Toluene	108-88-3	2.5 mg/kg	104	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1724447)							
ES1106355-001	Anonymous	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	93.9	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	103	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1724320)							
ES1106355-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	77.0	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1724446)							
ES1106355-001	Anonymous	EP071: C10 - C14 Fraction	----	640 mg/kg	128	70	130
		EP071: C15 - C28 Fraction	----	3140 mg/kg	108	70	130
		EP071: C29 - C36 Fraction	----	2860 mg/kg	111	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: ES1106406	Page	: 1 of 5
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 25-MAR-2011
C-O-C number	: ----	Issue Date	: 31-MAR-2011
Sampler	: ----	No. of samples received	: 1
Order number	: ----	No. of samples analysed	: 1
Quote number	: EN/005/10		

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

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis		
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EA055: Moisture Content							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	----	----	----	29-MAR-2011	06-APR-2011	✓
EG005T: Total Metals by ICP-AES							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	29-MAR-2011	19-SEP-2011	✓	29-MAR-2011	19-SEP-2011	✓
EG035T: Total Recoverable Mercury by FIMS							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	29-MAR-2011	20-APR-2011	✓	30-MAR-2011	20-APR-2011	✓
EP074A: Monocyclic Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	28-MAR-2011	06-APR-2011	✓	29-MAR-2011	06-APR-2011	✓
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	28-MAR-2011	06-APR-2011	✓	29-MAR-2011	07-MAY-2011	✓
EP080/071: Total Petroleum Hydrocarbons							
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	28-MAR-2011	06-APR-2011	✓	28-MAR-2011	07-MAY-2011	✓
Soil Glass Jar - Unpreserved QA04	23-MAR-2011	28-MAR-2011	06-APR-2011	✓	29-MAR-2011	06-APR-2011	✓



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Analytical Methods							
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	1	8	12.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	2	16	12.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	2	14	14.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	20	10.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	16	12.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	8	12.5	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	6	16.7	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	14	7.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	8	12.5	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	6	16.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	14	7.1	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	8	12.5	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	6	16.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	16	6.3	5.0	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	14	7.1	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	20	5.0	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	16	6.3	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	8	12.5	5.0	✓	ALS QCS3 requirement
Volatile Organic Compounds	EP074	1	6	16.7	5.0	✓	ALS QCS3 requirement



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
TPH - Semivolatle Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
Volatile Organic Compounds	EP074	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)

Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.



Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. 2120474 Telephone: (02) 9239 7100 Fax: (02) 9239 7194 ABN 39 008 488 373
 Project Name Phase 2 Environmental Site Assessment Phone No. 04 32805090
 Project Manager Amy Dobson Fax No. 02 9239 7195 Sent to Lab: Envirolab Services
 Contact Name Ellen Swanson Email amy.dobson@ghd.com; Address: 12 Ashley Street
ellen.swanson@ghd.com CHATSWOOD NSW 2067 Attention: Aileen Hie Date Required: standard TAT
 Fax: 02 9910 6201 Phone: 02 9910 6200 Date Submitted: 25/3/11
 Page 3 of 4

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS		
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10			
HA40_0.3	25/3/11	1	Jar		✓	✓					✓	✓	✓								1= Metals (As, Pb , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Cd , Zn)
HA40_0.5											✓	✓	✓								2=MAH
HA40_0.7											✓	✓	✓	✓							3=TPH
HA33_0.1											✓	✓	✓	✓							4= PAH
HA33_0.4											✓	✓	✓								5= PCB
HA33_0.7											Hold										6=VOC & SVOC
HA44_0.27																					7= Pesticides
HA44_0.35											✓										8= Asbestos
HA26_0.45																					9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)
QA06											✓	✓									Please forward to ALS for analysis, 10= NEPM Screen

RELINQUISHED BY

Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	1400	[Signature]

RECEIVED BY

Name	Organisation	Date	Time	Signed
E. Short	ELS	25/3/11	15:30	[Signature]

RELINQUISHED BY

Name	Organisation

RECEIVED BY

Name	Organisation	Date	Time	Signed
Scy	PLS	28/3/11	1600	[Signature]

Environmental Division
 Sydney
 Work Order
ES1106469



Telephone : +61-2-8784 8555

It is the responsibility of the receiver to verify that the number of samples and their identifier



GHD Pty Ltd 133 Castlereagh Street Sydney NSW 2000 Australia

CHAIN OF CUSTODY AND ANALYSIS REQUEST FORM

Project No. <u>2120474</u>	Phone No. <u>04 32805099</u>	Telephone: (02) 9239 7100	Fax: (02) 9239 7194
Project Name <u>Phase 2 Environmental Site Assessment</u>	Fax No. <u>02 9239 7195</u>	Sent to Lab: <u>EnviroLab Services</u>	ABN 39 008 488 373
Project Manager <u>Amy Dobson</u>		Address: <u>12 Ashley Street</u>	
Contact Name <u>Ellen Swanson</u>	Email <u>amy.dobson@ghd.com</u> <u>ellen.swanson@ghd.com</u>	<u>CHATSWOOD NSW 2067</u>	Date Required: <u>standard TAT</u>
		Fax: <u>02 9910 6201</u>	Date Submitted: <u>25/3/11</u>
		Attention: <u>Aileen Hie</u>	Page <u>4</u> of <u>4</u>
		Phone: <u>02 9910 6200</u>	

SAMPLE No.	Date Sampled	No. of Containers	Container Type /Size	MATRIX		PRESERVATION			ANALYSIS REQUIRED										COMMENTS			
				Water	Soil	Chill	Acid	Other	1	2	3	4	5	6	7	8	9	10				
QA07	25/3/11	1	Jar		✓	✓			✓		✓	✓										1= Metals (As, Cd , Be, Cd, Cu, Co, Pb, Hg, Mo, Ni, Sn, Zn)
QA08					✓	✓			✓	✓	✓	✓										2=MAH
QA09					✓	✓			✓		✓	✓										3=TPH
QA10					✓	✓			✓	✓	✓	✓										4= PAH
RB04			Plastic	✓		✓	✓		✓													5= PCB
Trip Blank 9			Jar		✓	✓				✓												6=VOC & SVOC
																						7= Pesticides
																						8= Asbestos
																						9= Metals (As, Cr, Cd, Cu, Pd, Hg, Ni, Zn)

2

Please forward to ALS for analysis

RELINQUISHED BY

Name	Organisation	Date	Time	Signed
Adam Tilling	GHD	25/3/11	1400	[Signature]

RECEIVED BY

Name	Organisation	Date	Time	Signed
E. Short	ELS	25-3-11	15:30	[Signature]

RELINQUISHED BY

Name	Organisation	Date	Time	Signed

RECEIVED BY

Name	Organisation	Date	Time	Signed
Sey	AS	28/3/11	1600	[Signature]

It is the responsibility of the receiver to verify that the number of samples and their identifying samples numbers correspond to those listed on this form



Environmental Division

CERTIFICATE OF ANALYSIS

Work Order	: ES1106469	Page	: 1 of 5
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Order number	: ----		
C-O-C number	: ----	Date Samples Received	: 28-MAR-2011
Sampler	: ----	Issue Date	: 04-APR-2011
Site	: ----		
Quote number	: EN/005/10	No. of samples received	: 2
		No. of samples analysed	: 2

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits



NATA Accredited Laboratory 825

This document is issued in accordance with NATA accreditation requirements.

Accredited for compliance with ISO/IEC 17025.

Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Alex Rossi	Organic Chemist	Sydney Organics
Celine Conceicao	Spectroscopist	Sydney Inorganics
Edwandy Fadjar	Senior Organic Chemist	Sydney Organics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics

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A Campbell Brothers Limited Company



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

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

When 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.

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

LOR = Limit of reporting

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



Analytical Results

Sub-Matrix: **SOIL**

Client sample ID

Client sampling date / time

Compound	CAS Number	LOR	Unit	QA06	QA09			
				25-MAR-2011 15:00	25-MAR-2011 15:00	----	----	----
				ES1106469-001	ES1106469-002	----	----	----
EA055: Moisture Content								
^ Moisture Content (dried @ 103°C)	----	1.0	%	20.6	11.5	----	----	----
EG005T: Total Metals by ICP-AES								
Arsenic	7440-38-2	5	mg/kg	8	112	----	----	----
Beryllium	7440-41-7	1	mg/kg	<1	<1	----	----	----
Cadmium	7440-43-9	1	mg/kg	<1	<1	----	----	----
Cobalt	7440-48-4	2	mg/kg	3	9	----	----	----
Copper	7440-50-8	5	mg/kg	23	24	----	----	----
Lead	7439-92-1	5	mg/kg	16	29	----	----	----
Manganese	7439-96-5	5	mg/kg	26	210	----	----	----
Molybdenum	7439-98-7	2	mg/kg	<2	<2	----	----	----
Nickel	7440-02-0	2	mg/kg	4	13	----	----	----
Tin	7440-31-5	5	mg/kg	<5	<5	----	----	----
Vanadium	7440-62-2	5	mg/kg	50	49	----	----	----
Zinc	7440-66-6	5	mg/kg	36	70	----	----	----
EG035T: Total Recoverable Mercury by FIMS								
Mercury	7439-97-6	0.1	mg/kg	0.2	<0.1	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
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)fluoranthene	205-99-2	0.5	mg/kg	----	<0.5	----	----	----
Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	----	<0.5	----	----	----
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	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	10	mg/kg	<10	<10	----	----	----
C10 - C14 Fraction	----	50	mg/kg	<50	<50	----	----	----
C15 - C28 Fraction	----	100	mg/kg	<100	<100	----	----	----
C29 - C36 Fraction	----	100	mg/kg	<100	<100	----	----	----



Analytical Results

Sub-Matrix: **SOIL**

Client sample ID

Client sampling date / time

				QA06	QA09	----	----	----
				25-MAR-2011 15:00	25-MAR-2011 15:00	----	----	----
Compound	CAS Number	LOR	Unit	ES1106469-001	ES1106469-002	----	----	----
EP080/071: Total Petroleum Hydrocarbons - Continued								
^ C10 - C36 Fraction (sum)	----	50	mg/kg	<50	<50	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates								
Phenol-d6	13127-88-3	0.1	%	----	110	----	----	----
2-Chlorophenol-D4	93951-73-6	0.1	%	----	97.2	----	----	----
2,4,6-Tribromophenol	118-79-6	0.1	%	----	106	----	----	----
EP075(SIM)T: PAH Surrogates								
2-Fluorobiphenyl	321-60-8	0.1	%	----	106	----	----	----
Anthracene-d10	1719-06-8	0.1	%	----	111	----	----	----
4-Terphenyl-d14	1718-51-0	0.1	%	----	117	----	----	----
EP080S: TPH(V)/BTEX Surrogates								
1,2-Dichloroethane-D4	17060-07-0	0.1	%	88.1	112	----	----	----
Toluene-D8	2037-26-5	0.1	%	86.2	111	----	----	----
4-Bromofluorobenzene	460-00-4	0.1	%	94.1	106	----	----	----



Surrogate Control Limits

Sub-Matrix: SOIL		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	56.3	133.3
2-Chlorophenol-D4	93951-73-6	53.8	133.8
2,4,6-Tribromophenol	118-79-6	23.1	134.9
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	58.9	132.7
Anthracene-d10	1719-06-8	55.0	137.6
4-Terphenyl-d14	1718-51-0	54.0	147.8
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72.8	133.2
Toluene-D8	2037-26-5	73.9	132.1
4-Bromofluorobenzene	460-00-4	71.6	130.0



Environmental Division

QUALITY CONTROL REPORT

Work Order	: ES1106469	Page	: 1 of 7
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 28-MAR-2011
C-O-C number	: ----	Issue Date	: 04-APR-2011
Sampler	: ----	No. of samples received	: 2
Order number	: ----	No. of samples analysed	: 2
Quote number	: EN/005/10		

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

This Quality Control Report contains the following information:

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



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Signatories

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

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Alex Rossi	Organic Chemist	Sydney Organics
Celine Conceicao	Spectroscopist	Sydney Inorganics
Edwandy Fadjar	Senior Organic Chemist	Sydney Organics
Hoa Nguyen	Inorganic Chemist	Sydney Inorganics



General Comments

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

Key :
Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
= Indicates failed QC



Laboratory Duplicate (DUP) Report

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

Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EA055: Moisture Content (QC Lot: 1726240)									
ES1106393-001	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	21.4	20.9	2.2	0% - 20%
ES1106466-002	Anonymous	EA055-103: Moisture Content (dried @ 103°C)	----	1.0	%	9.0	8.4	5.9	No Limit
EG005T: Total Metals by ICP-AES (QC Lot: 1725883)									
ES1106469-001	QA06	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	3	5	49.0	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	4	7	48.8	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	8	9	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	23	25	9.7	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	16	18	9.9	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	26	32	23.9	No Limit
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	50	53	5.0	0% - 50%
		EG005T: Zinc	7440-66-6	5	mg/kg	36	55	40.6	0% - 50%
ES1106479-001	Anonymous	EG005T: Beryllium	7440-41-7	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cadmium	7440-43-9	1	mg/kg	<1	<1	0.0	No Limit
		EG005T: Cobalt	7440-48-4	2	mg/kg	7	8	13.9	No Limit
		EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	<2	0.0	No Limit
		EG005T: Nickel	7440-02-0	2	mg/kg	13	15	11.5	No Limit
		EG005T: Arsenic	7440-38-2	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Copper	7440-50-8	5	mg/kg	9	10	0.0	No Limit
		EG005T: Lead	7439-92-1	5	mg/kg	8	8	0.0	No Limit
		EG005T: Manganese	7439-96-5	5	mg/kg	275	307	11.2	0% - 20%
		EG005T: Tin	7440-31-5	5	mg/kg	<5	<5	0.0	No Limit
		EG005T: Vanadium	7440-62-2	5	mg/kg	41	43	5.4	No Limit
		EG005T: Zinc	7440-66-6	5	mg/kg	30	24	22.4	No Limit
EG035T: Total Recoverable Mercury by FIMS (QC Lot: 1725884)									
ES1106469-001	QA06	EG035T: Mercury	7439-97-6	0.1	mg/kg	0.2	<0.1	0.0	No Limit
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1725816)									
ES1106469-002	QA09	EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit



Sub-Matrix: **SOIL**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Recovery Limits (%)
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QC Lot: 1725816) - continued									
ES1106469-002	QA09	EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
		EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	<0.5	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1725622)									
ES1106393-001	Anonymous	EP080: C6 - C9 Fraction	----	10	mg/kg	<10	<10	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 1725815)									
ES1106469-002	QA09	EP071: C15 - C28 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C29 - C36 Fraction	----	100	mg/kg	<100	<100	0.0	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	<50	<50	0.0	No Limit
ES1106476-001	Anonymous	EP071: C15 - C28 Fraction	----	100	mg/kg	1600	1420	11.5	0% - 50%
		EP071: C29 - C36 Fraction	----	100	mg/kg	360	310	14.5	No Limit
		EP071: C10 - C14 Fraction	----	50	mg/kg	230	250	7.2	No Limit



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

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

Sub-Matrix: SOIL

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report	Laboratory Control Spike (LCS) Report				
				Result	Spike Concentration	Spike Recovery (%)		Recovery Limits (%)	
						LCS	Low	High	
EG005T: Total Metals by ICP-AES (QCLot: 1725883)									
EG005T: Arsenic	7440-38-2	5	mg/kg	<5	13.11 mg/kg	126	70	130	
EG005T: Beryllium	7440-41-7	1	mg/kg	<1	5.51 mg/kg	113	70	130	
EG005T: Cadmium	7440-43-9	1	mg/kg	<1	2.76 mg/kg	99.4	83.3	111	
EG005T: Cobalt	7440-48-4	2	mg/kg	<2	24.49 mg/kg	109	70	130	
EG005T: Copper	7440-50-8	5	mg/kg	<5	54.68 mg/kg	108	90.1	114	
EG005T: Lead	7439-92-1	5	mg/kg	<5	54.76 mg/kg	101	85.2	111	
EG005T: Manganese	7439-96-5	5	mg/kg	<5	135.60 mg/kg	107	70	130	
EG005T: Molybdenum	7439-98-7	2	mg/kg	<2	----	----	----	----	
EG005T: Nickel	7440-02-0	2	mg/kg	<2	55.23 mg/kg	111	88.3	116	
EG005T: Tin	7440-31-5	5	mg/kg	<5	----	----	----	----	
EG005T: Vanadium	7440-62-2	5	mg/kg	<5	34.03 mg/kg	119	70	130	
EG005T: Zinc	7440-66-6	5	mg/kg	<5	103.88 mg/kg	103	88.9	112	
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1725884)									
EG035T: Mercury	7439-97-6	0.1	mg/kg	<0.1	1.4 mg/kg	83.1	67	118	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1725816)									
EP075(SIM): Naphthalene	91-20-3	0.5	mg/kg	<0.5	4 mg/kg	106	81.9	113	
EP075(SIM): Acenaphthylene	208-96-8	0.5	mg/kg	<0.5	4 mg/kg	107	79.6	113	
EP075(SIM): Acenaphthene	83-32-9	0.5	mg/kg	<0.5	4 mg/kg	111	81.5	112	
EP075(SIM): Fluorene	86-73-7	0.5	mg/kg	<0.5	4 mg/kg	107	79.9	112	
EP075(SIM): Phenanthrene	85-01-8	0.5	mg/kg	<0.5	4 mg/kg	108	79.4	114	
EP075(SIM): Anthracene	120-12-7	0.5	mg/kg	<0.5	4 mg/kg	107	81.1	112	
EP075(SIM): Fluoranthene	206-44-0	0.5	mg/kg	<0.5	4 mg/kg	96.6	78.8	113	
EP075(SIM): Pyrene	129-00-0	0.5	mg/kg	<0.5	4 mg/kg	92.4	78.9	113	
EP075(SIM): Benz(a)anthracene	56-55-3	0.5	mg/kg	<0.5	4 mg/kg	108	77.2	112	
EP075(SIM): Chrysene	218-01-9	0.5	mg/kg	<0.5	4 mg/kg	105	79.8	114	
EP075(SIM): Benzo(b)fluoranthene	205-99-2	0.5	mg/kg	<0.5	4 mg/kg	99.5	71.8	118	
EP075(SIM): Benzo(k)fluoranthene	207-08-9	0.5	mg/kg	<0.5	4 mg/kg	101	74.2	117	
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	mg/kg	<0.5	4 mg/kg	108	76.4	113	
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	0.5	mg/kg	<0.5	4 mg/kg	106	71	113	
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	0.5	mg/kg	<0.5	4 mg/kg	108	71.7	113	
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	0.5	mg/kg	<0.5	4 mg/kg	104	72.4	114	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1725622)									
EP080: C6 - C9 Fraction	----	10	mg/kg	<10	26 mg/kg	93.6	68.4	128	
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1725815)									



Sub-Matrix: **SOIL**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
						LCS	Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1725815) - continued								
EP071: C10 - C14 Fraction	----	50	mg/kg	<50	200 mg/kg	91.5	75.2	116
EP071: C15 - C28 Fraction	----	100	mg/kg	<100	200 mg/kg	94.1	75.3	113
EP071: C29 - C36 Fraction	----	100	mg/kg	<100	200 mg/kg	106	72.6	117



Matrix Spike (MS) Report

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

Sub-Matrix: **SOIL**

Laboratory sample ID	Client sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report			
				Spike Concentration	Spike Recovery (%)	Recovery Limits (%)	
					MS	Low	High
EG005T: Total Metals by ICP-AES (QCLot: 1725883)							
ES1106469-001	QA06	EG005T: Arsenic	7440-38-2	50 mg/kg	96.0	70	130
		EG005T: Cadmium	7440-43-9	50 mg/kg	89.0	70	130
		EG005T: Copper	7440-50-8	250 mg/kg	102	70	130
		EG005T: Lead	7439-92-1	250 mg/kg	90.9	70	130
		EG005T: Nickel	7440-02-0	50 mg/kg	97.1	70	130
		EG005T: Zinc	7440-66-6	250 mg/kg	106	70	130
EG035T: Total Recoverable Mercury by FIMS (QCLot: 1725884)							
ES1106469-001	QA06	EG035T: Mercury	7439-97-6	5 mg/kg	79.6	70	130
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 1725816)							
ES1106469-002	QA09	EP075(SIM): Acenaphthene	83-32-9	10 mg/kg	107	70	130
		EP075(SIM): Pyrene	129-00-0	10 mg/kg	107	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1725622)							
ES1106393-001	Anonymous	EP080: C6 - C9 Fraction	----	32.5 mg/kg	81.2	70	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 1725815)							
ES1106469-002	QA09	EP071: C10 - C14 Fraction	----	640 mg/kg	116	70	130
		EP071: C15 - C28 Fraction	----	3140 mg/kg	102	70	130
		EP071: C29 - C36 Fraction	----	2860 mg/kg	90.4	70	130



Environmental Division

INTERPRETIVE QUALITY CONTROL REPORT

Work Order	: ES1106469	Page	: 1 of 5
Client	: GHD SERVICES PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: MS ELLEN SWANSON	Contact	: Angela Pavlovic
Address	: LEVEL 15, 133 CASTLEREAGH STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: ellen.swanson@ghd.com.au	E-mail	: angela.pavlovic@alsenviro.com
Telephone	: +61 02 9239 7100	Telephone	: +61 2 8784 8523
Facsimile	: +61 02 9239 7199	Facsimile	: +61 2 8784 8500
Project	: 2120474 PHASE 2 ENVIRONMENTAL SITE ASSESSMENT	QC Level	: NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Site	: ----	Date Samples Received	: 28-MAR-2011
C-O-C number	: ----	Issue Date	: 04-APR-2011
Sampler	: ----	No. of samples received	: 2
Order number	: ----	No. of samples analysed	: 2
Quote number	: EN/005/10		

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

This Interpretive Quality Control Report contains the following information:

- Analysis Holding Time Compliance
- Quality Control Parameter Frequency Compliance
- Brief Method Summaries
- Summary of Outliers



Analysis Holding Time Compliance

The following report summarises extraction / preparation and analysis times and compares with recommended holding times. Dates reported represent first date of extraction or analysis and precludes subsequent dilutions and reruns. Information is also provided re the sample container (preservative) from which the analysis aliquot was taken. Elapsed period to analysis represents number of days from sampling where no extraction / digestion is involved or period from extraction / digestion where this is present. For composite samples, sampling date is assumed to be that of the oldest sample contributing to the composite. Sample date for laboratory produced leachates is assumed as the completion date of the leaching process. Outliers for holding time are based on USEPA SW 846, APHA, AS and NEPM (1999). A listing of breaches is provided in the Summary of Outliers.

Holding times for leachate methods (excluding elutriates) vary according to the analytes being determined on the resulting solution. For non-volatile analytes, the holding time compliance assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These soil holding times are: Organics (14 days); Mercury (28 days) & other metals (180 days). A recorded breach therefore does not guarantee a breach for all non-volatile parameters.

Matrix: **SOIL**

Evaluation: * = Holding time breach ; ✓ = Within holding time.

Method Container / Client Sample ID(s)	Sample Date	Extraction / Preparation			Analysis			
		Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation	
EA055: Moisture Content								
Soil Glass Jar - Unpreserved QA06, QA09	25-MAR-2011	----	----	----	29-MAR-2011	08-APR-2011	✓	
EG005T: Total Metals by ICP-AES								
Soil Glass Jar - Unpreserved QA06, QA09	25-MAR-2011	29-MAR-2011	21-SEP-2011	✓	29-MAR-2011	21-SEP-2011	✓	
EG035T: Total Recoverable Mercury by FIMS								
Soil Glass Jar - Unpreserved QA06, QA09	25-MAR-2011	29-MAR-2011	22-APR-2011	✓	30-MAR-2011	22-APR-2011	✓	
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Soil Glass Jar - Unpreserved QA09	25-MAR-2011	29-MAR-2011	08-APR-2011	✓	30-MAR-2011	08-MAY-2011	✓	
EP080/071: Total Petroleum Hydrocarbons								
Soil Glass Jar - Unpreserved QA06, QA09	25-MAR-2011	29-MAR-2011	08-APR-2011	✓	01-APR-2011	08-APR-2011	✓	
Soil Glass Jar - Unpreserved QA06, QA09	25-MAR-2011	29-MAR-2011	08-APR-2011	✓	29-MAR-2011	08-MAY-2011	✓	



Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(where) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **SOIL**

Evaluation: * = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type	Method	Count		Rate (%)			Quality Control Specification
		QC	Regular	Actual	Expected	Evaluation	
Laboratory Duplicates (DUP)							
Moisture Content	EA055-103	2	18	11.1	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
PAH/Phenols (SIM)	EP075(SIM)	1	7	14.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	4	25.0	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	2	13	15.4	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	2	15	13.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	7	14.3	10.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Laboratory Control Samples (LCS)							
PAH/Phenols (SIM)	EP075(SIM)	1	7	14.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	15	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	7	14.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Method Blanks (MB)							
PAH/Phenols (SIM)	EP075(SIM)	1	7	14.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	4	25.0	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	13	7.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	15	6.7	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	7	14.3	5.0	✓	NEPM 1999 Schedule B(3) and ALS QCS3 requirement
Matrix Spikes (MS)							
PAH/Phenols (SIM)	EP075(SIM)	1	7	14.3	5.0	✓	ALS QCS3 requirement
Total Mercury by FIMS	EG035T	1	4	25.0	5.0	✓	ALS QCS3 requirement
Total Metals by ICP-AES	EG005T	1	13	7.7	5.0	✓	ALS QCS3 requirement
TPH - Semivolatile Fraction	EP071	1	15	6.7	5.0	✓	ALS QCS3 requirement
TPH Volatiles/BTEX	EP080	1	7	14.3	5.0	✓	ALS QCS3 requirement



Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Moisture Content	EA055-103	SOIL	A gravimetric procedure based on weight loss over a 12 hour drying period at 103-105 degrees C. This method is compliant with NEPM (2010 Draft) Schedule B(3) Section 7.1 and Table 1 (14 day holding time).
Total Metals by ICP-AES	EG005T	SOIL	(APHA 21st ed., 3120; USEPA SW 846 - 6010) (ICPAES) Metals are determined following an appropriate acid digestion of the soil. The ICPAES technique ionises samples in a plasma, emitting a characteristic spectrum based on metals present. Intensities at selected wavelengths are compared against those of matrix matched standards. This method is compliant with NEPM (1999) Schedule B(3)
Total Mercury by FIMS	EG035T	SOIL	AS 3550, APHA 21st ed., 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) FIM-AAS is an automated flameless atomic absorption technique. Mercury in solids are determined following an appropriate acid digestion. Ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM (1999) Schedule B(3)
TPH - Semivolatle Fraction	EP071	SOIL	(USEPA SW 846 - 8015A) Sample extracts are analysed by Capillary GC/FID and quantified against alkane standards over the range C10 - C36. This method is compliant with NEPM (1999) Schedule B(3) (Method 506.1)
PAH/Phenols (SIM)	EP075(SIM)	SOIL	(USEPA SW 846 - 8270B) Extracts are analysed by Capillary GC/MS in Selective Ion Mode (SIM) and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 502 and 507)
TPH Volatiles/BTEX	EP080	SOIL	(USEPA SW 846 - 8260B) Extracts are analysed by Purge and Trap, Capillary GC/MS. Quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM (1999) Schedule B(3) (Method 501)
Preparation Methods	Method	Matrix	Method Descriptions
Hot Block Digest for metals in soils sediments and sludges	EN69	SOIL	USEPA 200.2 Mod. Hot Block Acid Digestion 1.0g of sample is heated with Nitric and Hydrochloric acids, then cooled. Peroxide is added and samples heated and cooled again before being filtered and bulked to volume for analysis. Digest is appropriate for determination of selected metals in sludge, sediments, and soils. This method is compliant with NEPM (1999) Schedule B(3) (Method 202)
Methanolic Extraction of Soils for Purge and Trap	* ORG16	SOIL	(USEPA SW 846 - 5030A) 5g of solid is shaken with surrogate and 10mL methanol prior to analysis by Purge and Trap - GC/MS.
Tumbler Extraction of Solids (Option B - Non-concentrating)	ORG17B	SOIL	In-house, Mechanical agitation (tumbler). 10g of sample, Na ₂ SO ₄ and surrogate are extracted with 20mL 1:1 DCM/Acetone by end over end tumble. The solvent is transferred directly to a GC vial for analysis.



Summary of Outliers

Outliers : Quality Control Samples

The following report highlights outliers flagged in the Quality Control (QC) Report. Surrogate recovery limits are static and based on USEPA SW846 or ALS-QWI/EN/38 (in the absence of specific USEPA limits). This report displays QC Outliers (breaches) only.

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

- For all matrices, no Method Blank value outliers occur.
- For all matrices, no Duplicate outliers occur.
- For all matrices, no Laboratory Control outliers occur.
- For all matrices, no Matrix Spike outliers occur.

Regular Sample Surrogates

- For all regular sample matrices, no surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

This report displays Holding Time breaches only. Only the respective Extraction / Preparation and/or Analysis component is/are displayed.

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

The following report highlights breaches in the Frequency of Quality Control Samples.

- No Quality Control Sample Frequency Outliers exist.



Appendix E
QAQC Report



Appendix E -Data Validation Assessment

1.1 Introduction

Quality control samples provide information that discounts or potentially identifies any errors due to possible sources of cross contamination, inconsistencies in sampling, and analytical techniques used. The quality control program for this Phase 2 ESA comprised the collection and analysis of the following types of samples:

- **Blind Duplicates:** Coded duplicate samples submitted to the primary laboratory for analysis as two individual samples without any indication to the laboratory that they have been duplicated;
- **Field Duplicate Splits:** Duplicate samples with one sample being sent to the secondary laboratory for analysis. The same parameters are to be analysed using similar analytical techniques;
- **Rinsate Blanks:** Collected from sampling equipment to verify the effectiveness of decontamination procedures.
- **Trip Blanks:** Blank samples to test for potential cross contamination between samples during storage and transport.

A quantitative measure of the duplicate sample results was made using calculated relative percentage difference (RPD) values. The RPD values were calculated using the following equation.

$$RPD(\%) = \frac{\langle Co - Cs \rangle}{\left\langle \frac{Co + Cs}{2} \right\rangle} \times 100$$

where Co = concentration obtained from the original sample
 Cs = concentration obtained from the duplicate sample

1.2 GHD QC Sampling Program

1.2.1 Compliance with Recommended Holding-Times

All analytes were extracted within both MGT's and ALS's technical holding times, and those set out in Table 3 of AS4482.1 2005 for each analytical method.

1.2.2 Blind and Split Duplicate Acceptability

Ten (10) duplicate soil samples, four (4) split and six (6) blind, were analysed as part of the soil sampling program. Tabulated soil analytical results with RPD results are provided in **Table E1**.

One (1) blind and one (1) field split sample were collected as part of the groundwater sampling program. Groundwater RPD results are provided in in **Table E2**.

All RPDs were within the acceptable range of 0-50%, with the exception of the following exceedances shown in **Table 1** below.



Table 1 Duplicate RPD Exceedances

Soil Samples	Duplicate Type	RPD %	Analyte	Concentrations (mg/kg)	LOR	NEPM EIL / NEPM HIL A (mg/kg)
TP06 & QA01	Blind	159	Cobalt	540 & 62	1.0	- / 20
TP06 & QA01	Blind	115	Manganese	2900 & 780	1.0	500 / 1500
TP06 & QA01	Blind	109	Nickel	75 & 22	1.0	60 / 600
TP06 & QA01	Blind	63	Zinc	230 & 120	1.0	200 / 7000
TP39 & QA07	Blind	64	Copper	35 & 18	1.0	100 / 1000
TP39 & QA08	Blind	100	Cobalt	6 & 2	1.0	- / 20
TP39 & QA08	Blind	82	Vanadium	12 & 5	1.0	50 / -
TP39 & QA08	Blind	71	Zinc	21 & 10	1.0	200 / 7000
HA44 & QA10	Blind	80	Vanadium	3 & 7	1.0	50 / -
HA33 & QA06	Split	70	Manganese	54 & 26	1.0 & 5.0	500 / 1500
TP06 & QA01	Blind	99	Arsenic	38 & 112	4.0 & 5.0	20 / 100
Groundwater Samples						ANZECC (2000): Agriculture parks & Gardens / Ecosystems Fresh Water (95%) / Primary Contact Recreation
GW7 & QA1	Blind	152	Vanadium	0.015 & 0.11	0.01	-
BH5 & QA2	Split	74	Ammonia as N	120 & 260	10	-

Soil RPDs

There were eleven elevated RPDs for soil duplicate samples. The majority of the RPD exceedances resulted from low concentrations reported for the duplicate pair and generally, the magnitude was not significant (duplicates pairs mostly within the same order of magnitude). In most cases (with the exception of arsenic at TP06) the analyte concentrations of the primary samples were higher, and hence more conservative, than the duplicate samples. Variations in analytical results between duplicate soil samples may occur due to the difficulty in obtaining a homogeneous primary sample for splitting purposes and variation can result from the nature of the sample and the form of the contaminant (i.e. fully dispersed, particulate or otherwise). Despite this, the majority of samples reported RPD values less than 50%.



Soil Trip Blanks

All reported concentrations for the soil Trip Blanks submitted to EnviroLab for analysis were below laboratory reporting limits.

Groundwater RPDs

There were two elevated RPDs for groundwater, one for ammonia and one for vanadium. The ammonia results were within the same order of magnitude and both concentrations were below the adopted criteria. The duplicate pair concentration for vanadium was an order of magnitude higher than the primary sample. The cause of this discrepancy is unknown and possibly due to laboratory error. Vanadium is not a contaminant of concern and this potential error does not impact the conclusions of the report. The majority of samples reported RPD values less than 50%.

Rinsate Blanks

Rinsate blank results are provided in Table E3. All reported concentrations for the rinsate blank samples collected during the soil sampling program were below laboratory reporting limits.

The rinsate blank RB2 (collected during the groundwater sampling program) submitted to MGT reported concentrations of Chromium (III & IV), zinc and selenium above the laboratory LOR. The detected concentrations in the rinsate analysis may indicate that insufficient decontamination of equipment occurred. The zinc and chromium concentrations reported for RB02 were considerably lower than the primary samples and not considered to affect the reliability of the results. In the case of selenium, the rinsate blank concentration was higher than the primary samples and may indicate laboratory interference (it is noted that the relevant mgt laboratory report 295938 did not report a method blank result for selenium). Thus, the selenium results in mgt report 295938 are considered potentially unreliable. In particular, exceedances of the adopted criteria reported at BH4, GW1 and GW2 need to be viewed with caution. Selenium is not considered a primary contaminant of concern and this does not impact the conclusions of the report.

1.3 Laboratory Quality Control

1.3.1 Laboratory Duplicates

All RPDs for laboratory duplicates by MGT were within the ranges of acceptability as specified by the respective laboratories, with the exception of 53456-6DUP1 (lab duplicate of TP39) which had an RPD of 53%. This indicates that variance in internal lab results may be attributed to soil heterogeneity and support the case mentioned above for some high soil RPDs.

1.3.2 Matrix Spike Recoveries

MGT matrix spike percentage recoveries were conducted and measured within an acceptability range of 70% and 130% (30-130% for Phenols), with all results being within the said ranges.

1.3.3 Method Blanks

All reported concentrations for laboratory method blanks analysed by EnviroLab (for soil) and MGT (for water) were less than their respective reporting limits.



1.3.4 Laboratory Control Sample (LCS) Spike Recoveries

MGT conducted and measured LCS spike percentage recoveries within an acceptability range of 70% and 130% (30-130% for Phenols), with all results being within the said ranges.

1.4 Discussion

The results of the QA/QC program are considered to provide an acceptable degree of confidence in the analytical program completed, with the exception of the selenium results for groundwater in mgt laboratory report 295938, which are considered potentially unreliable. Overall, the analytical data set is considered to be valid and acceptable to base conclusions on the contamination status of the Site.

Pacific Brands, Wentworthville - Phase 2 Environmental Site Assessment
Table E1 - Soil RPDs

Chem_Group	ChemName	Units	EQL	53287			53366			53406			53456			53456			53321			53456			53456					
				TP06	QA01	RPD	HA31	QA03	RPD	TP30	QA05	RPD	TP39	QA07	RPD	TP39	QA08	RPD	HA44	QA10	RPD	TP09	Interlab_D	RPD	HA33	Interlab_D	RPD	TP34	Interlab_D	RPD
Field_ID	Sampled_Date-Time			22/03/2011	22/03/2011		23/03/2011	23/03/2011		24/03/2011	24/03/2011		25/03/2011	25/03/2011		25/03/2011	25/03/2011		22/03/2011	22/03/2011		25/03/2011	25/03/2011		25/03/2011	25/03/2011				
Asbestos	Asbestos fibres	-								0.0	0.0	0																		
BTEX	Benzene	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0							<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.2	0						
	Ethylbenzene	mg/kg	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<0.5	0						
	Toluene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0							<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0						
	Xylene (m & p)	mg/kg	2 (Primary): 0.5 (Interlab)	<2.0	<2.0	0	<2.0	<2.0	0							<2.0	<2.0	0	<2.0	<2.0	0	<2.0	<0.5	0						
	Xylene (o)	mg/kg	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<0.5	0						
Halogenated Phenols	2,4,6-trichlorophenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
	2,4-dichlorophenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
	2,6-dichlorophenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
	2-chlorophenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
	Pentachlorophenol	mg/kg	10 (Primary): 2 (Interlab)																				<10.0	<2.0	0					
	Cyanide Total	mg/kg	0.5 (Primary): 1 (Interlab)																				<0.5	<1.0	0					
Inorganics	Moisture	%	0.1 (Primary): 1 (Interlab)	8.5	9.8	14	8.1	8.9	9	8.2	8.3	1	17.0	11.0	43	19.0	18.0	5	17.0	15.0	13	38.0	41.1	8	21.0	20.6	2	11.0	11.5	4
	Nitrate (as N)	mg/kg	0.5 (Primary): 0.1 (Interlab)																			<0.5	0.1	0						
	Sulphate	mg/kg	2 (Primary): 50 (Interlab)																			32.0	<50.0	0						
	Sulphur as S	mg/kg	10																			110.0	100.0	10						
Lead	Lead	mg/kg	1 (Primary): 5 (Interlab)	20.0	16.0	22	5.0	6.0	18	28.0	23.0	20	14.0	11.0	24	13.0	10.0	26	21.0	16.0	27	17.0	17.0	0	21.0	16.0	27	22.0	29.0	27
	1,2,4-trimethylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	1,3,5-trimethylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	Isopropylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	n-butylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	n-propylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	p-isopropyltoluene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	sec-butylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	Styrene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
	tert-butylbenzene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0							<1.0	<1.0	0	<1.0	<1.0	0									
Metals	Antimony	mg/kg	7												<7.0	<7.0	0	<7.0	<7.0	0	<7.0	<7.0	0							
	Arsenic	mg/kg	4 (Primary): 5 (Interlab)	6.0	5.0	18	<4.0	<4.0	0	6.0	7.0	15	16.0	12.0	29	6.0	<4.0	40	<4.0	<4.0	0	<4.0	<5.0	0	7.0	8.0	13	38.0	112.0	99
	Beryllium	mg/kg	1	2.0	2.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	3.0	3.0	0	<1.0	<1.0	0	<1.0	<1.0	0
	Cadmium	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<1.0	0	<0.5	<1.0	0	<0.5	<1.0	0
	Chromium (hexavalent)	mg/kg	1 (Primary): 0.5 (Interlab)																				<1.0	<0.5	0					
	Chromium (III+VI)	mg/kg	1 (Primary): 2 (Interlab)	7.0	6.0	15	23.0	32.0	33	11.0	10.0	10	5.0	8.0	46	3.0	2.0	40	2.0	2.0	0	5.0	8.0	46						
	Cobalt	mg/kg	1 (Primary): 2 (Interlab)	540.0	62.0	159	31.0	34.0	9	9.0	10.0	11	28.0	27.0	4	6.0	2.0	100	<1.0	<1.0	0	4.0	4.0	0	3.0	3.0	0	9.0	9.0	0
	Copper	mg/kg	1 (Primary): 5 (Interlab)	39.0	30.0	26	90.0	73.0	21	24.0	34.0	34	35.0	18.0	64	23.0	22.0	4	16.0	22.0	32	23.0	22.0	4	23.0	23.0	0	22.0	24.0	9
	Manganese	mg/kg	1 (Primary): 5 (Interlab)	2900.0	780.0	115	640.0	770.0	18	240.0	330.0	32	290.0	200.0	37	120.0	110.0	9	2.0	3.0	40	35.0	25.0	33	54.0	26.0	70	220.0	210.0	5
	Mercury	mg/kg	0.1	0.1	0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	0.4	120	<0.1	<0.1	0	<0.1	0.1	0	<0.1	0.2	67	<0.1	<0.1	0
	Molybdenum	mg/kg	1 (Primary): 2 (Interlab)	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<2.0	0	<1.0	<2.0	0	<1.0	<2.0	0
	Nickel	mg/kg	1 (Primary): 2 (Interlab)	75.0	22.0	109	74.0	72.0	3	14.0	12.0	15	9.0	9.0	0	4.0	1.0	120	<1.0	<1.0	0	16.0	16.0	0	4.0	4.0	0	9.0	13.0	36
	Phosphorus	mg/kg	10 (Primary): 2 (Interlab)																				210.0	211.0	0					
	Selenium	mg/kg	2													<2.0	<2.0	0	<2.0	<2.0	0	<2.0	<2.0	0						
	Tin	mg/kg	1 (Primary): 5 (Interlab)	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<1.0	0	2.0	1.0	67	<1.0	<1.0	0	<1.0	<1.0	0	<1.0	<5.0	0	2.0	<5.0	0	2.0	<5.0	0
	Vanadium	mg/kg	1 (Primary): 5 (Interlab)	17.0	14.0	19	48.0	53.0	10	18.0	21.0	15	17.0	28.0	49	12.0	5.0	82	3.0	7.0	80	24.0	31.0	25	44.0	50.0	13	36.0	49.0	31
	Zinc	mg/kg	1 (Primary): 5 (Interlab)	230.0	120.0	63	55.0	54.0	2	49.0	61.0	22	54.0	48.0	12	21.0	10.0	71	3.0	4.0	29	37.0	36.0	3	50.0	36.0	33	59.0	70.0	17
	PAH/Phenols	2,4-dimethylphenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0					
		2-methylphenol	mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0					
2-nitrophenol		mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
Acenaphthene		mg/kg	1 (Primary): 0.5 (Interlab)																			<1.0	<0.5	0						
Acenaphthylene		mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0					<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0			<0.1	<0.5	0
Acenaphthylene		mg/kg	1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	<0.1	<0.1	0					<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.1	0	<0.1	<0.5	0			<0.1		

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 Table E2 - Groundwater RPDs

		SDG		295853	295853	295853	Interlab_D		
Chem_Group	ChemName	Units	EQL	GW7	QA1	RPD	BH5	QA2	RPD
		Sampled_Date-Time	6/04/2011	6/04/2011	6/04/2011	6/04/2011			
BTEX	Benzene	µg/l	1	<1.0	<1.0	0	<1.0	<1.0	0
	Ethylbenzene	µg/l	1 (Primary); 2 (Interlab)	<1.0	<1.0	0	<1.0	<2.0	0
	Toluene	µg/l	1 (Primary); 2 (Interlab)	<1.0	<1.0	0	<1.0	<5.0	0
	Xylene (m & p)	µg/l	2	<2.0	<2.0	0	<2.0	<2.0	0
	Xylene (o)	µg/l	1 (Primary); 2 (Interlab)	<1.0	<1.0	0	<1.0	<2.0	0
Chlorinated Hydrocarbons	1,2-dibromo-3-chloropropane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2-dichloropropane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,3-dichloropropane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Chloromethane	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0
Halogenated Benzenes	2-chlorotoluene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	4-chlorotoluene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Bromobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
Halogenated Hydrocarbons	Bromomethane	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0
	Dichlorodifluoromethane	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0
Inorganics	Ammonia as N	µg/l	10	170.0	160.0	6	120.0	260.0	74
	TDS	mg/l	5 (Primary); 1 (Interlab)	6500.0	7000.0	7	170.0	220.0	28
Lead	Lead (Filtered)	mg/l	0.001	<0.001	<0.001	0	<0.001	<0.001	0
MAH	1,2,4-trimethylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,3,5-trimethylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Isopropylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	n-butylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	n-propylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	p-isopropyltoluene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	sec-butylbenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Styrene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
Metals	Antimony (Filtered)	mg/l	0.005 (Primary); 0.001 (Interlab)	<0.005	<0.005	0	<0.005	<0.001	0
	Arsenic (Filtered)	mg/l	0.001	0.022	0.023	4	<0.001	0.001	0
	Boron (Filtered)	mg/l	0.01 (Primary); 0.05 (Interlab)	0.05	0.05	0	0.11	0.14	24
	Cadmium (Filtered)	mg/l	0.0001	0.0001	0.0001	0	<0.0001	<0.0001	0
	Chromium (III-VI) (Filtered)	mg/l	0.001	0.017	0.017	0	0.003	<0.001	100
	Cobalt (Filtered)	mg/l	0.001	0.14	0.13	7	<0.001	<0.001	0
	Copper (Filtered)	mg/l	0.001	0.016	0.018	12	0.002	<0.001	67
	Manganese (Filtered)	mg/l	0.001	8.6	9.2	7	0.44	0.464	5
	Mercury (Filtered)	mg/l	0.0001	<0.0001	<0.0001	0	<0.0001	<0.0001	0
	Molybdenum (Filtered)	mg/l	0.001	0.001	0.001	0	<0.001	<0.001	0
	Nickel (Filtered)	mg/l	0.001	0.15	0.15	0	0.006	0.005	18
	Selenium (Filtered)	mg/l	0.005 (Primary); 0.01 (Interlab)	<0.005	<0.005	0	<0.005	<0.01	0
	Tin (Filtered)	mg/l	0.005 (Primary); 0.001 (Interlab)	<0.005	<0.005	0	<0.005	<0.001	0
	Vanadium (Filtered)	mg/l	0.005 (Primary); 0.01 (Interlab)	0.015	0.11	152	<0.005	<0.01	0
Zinc (Filtered)	mg/l	0.005	0.075	0.072	4	0.1	0.107	7	
PAH/Phenols	Naphthalene	µg/l	5 (Primary); 7 (Interlab)	<5.0	<5.0	0	<5.0	<7.0	0
Solvents	Methyl Ethyl Ketone	µg/l	5 (Primary); 50 (Interlab)	<5.0	<5.0	0	<5.0	<50.0	0
	2-hexanone (MBK)	µg/l	5 (Primary); 50 (Interlab)	<5.0	<5.0	0	<5.0	<50.0	0
	2-pentanone	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	4-Methyl-2-pentanone	µg/l	5 (Primary); 50 (Interlab)	<5.0	<5.0	0	<5.0	<50.0	0
	Vinyl acetate	µg/l	5 (Primary); 50 (Interlab)	<5.0	<5.0	0	<5.0	<50.0	0
TPH	TPH C6 - C9	µg/l	20	<20.0	<20.0	0	<20.0	<20.0	0
	TPH C10 - C14	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0
	TPH C15 - C28	µg/l	100	<100.0	<100.0	0	<100.0	<100.0	0
	TPH C29-C36	µg/l	100 (Primary); 50 (Interlab)	<100.0	<100.0	0	<100.0	<50.0	0
	TPH+C10 - C36 (Sum of total)	µg/l	200 (Primary); 50 (Interlab)	<200.0	<200.0	0	<200.0	<50.0	0
VOCs	1,1,1,2-tetrachloroethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,1,1-trichloroethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,1,2-trichloroethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,1-dichloroethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2,3-trichloropropane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2,4-trichlorobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2-dibromoethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2-dichlorobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,2-dichloroethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,3-dichlorobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	1,4-dichlorobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Bromodichloromethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Bromoform	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Carbon tetrachloride	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Chlorobenzene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Chlorodibromomethane	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Chloroethane	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0
	Chloroform	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	cis-1,2-dichloroethene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	cis-1,3-dichloropropene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Dichloromethane	µg/l	20	<20.0	<20.0	0	<20.0	<20.0	0
	Hexachlorobutadiene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
	Trichloroethene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0
Tetrachloroethene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0	
trans-1,2-dichloroethene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0	
trans-1,3-dichloropropene	µg/l	5	<5.0	<5.0	0	<5.0	<5.0	0	
Trichlorofluoromethane	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0	
Vinyl chloride	µg/l	50	<50.0	<50.0	0	<50.0	<50.0	0	

*RPDs have only been considered where a concentration is greater than 5 times the EQL.
 **High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (5-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
 ***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the pr

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Table E3 - Rinsate Blanks

Chem Group	ChemName	Units	EQL	SDS					
				Field ID					
				53321 RB1 22/03/2011 Rinsate	53366 RB02 23/03/2011 Rinsate	53406 RB3 24/03/2011 Rinsate	53456 RB04 25/03/2011 Rinsate	295938 RB2 7/04/2011 Rinsate	
BTEX	BTEX	µg/l	10						
BTEX	Benzene	µg/l	1	<1	<1			<1	
	Ethylbenzene	µg/l	1	<1	<1			<1	
	Toluene	µg/l	1	<1	<1			<1	
	Xylene (m & p)	µg/l	2	<2	<2			<2	
	Xylene (o)	µg/l	1	<1	<1			<1	
	Xylene Total	µg/l	3					<3	
Chlorinated Hydrocarbons	1,2-dibromo-3-chloropropane	µg/l	5						
	1,2-dichloropropane	µg/l	5						
	1,3-dichloropropane	µg/l	5						
	2,2-dichloropropane	µg/l	5					<50	
	Chloroethane	µg/l	50						
Halogenated Benzenes	2-chlorotoluene	µg/l	5						
	4-chlorotoluene	µg/l	5						
	Bromobenzene	µg/l	5						
Halogenated Hydrocarbons	Bromomethane	µg/l	50					<50	
	Dichlorodifluoromethane	µg/l	50						
Halogenated Phenols	2-chlorophenol	µg/l	2					<2	
	Pentachlorophenol	µg/l	10					<10	
Inorganics	Ammonia as N	µg/l	10						
	Cyanide Total	mg/l	0.005					<0.005	
	pH (Lab)	Units	8.1					6.6	
	Sulphate as S	mg/l	2					<2	
	TDS	mg/l	5						
Lead	Lead (Filtered)	mg/l	0.001	<0.03	<0.03	<0.03	<0.03	<0.001	
MAH	1,2,4-trimethylbenzene	µg/L	1	<1	<1				
	1,3,5-trimethylbenzene	µg/l	1	<1	<1				
	Isopropylbenzene	µg/l	1	<1	<1			<1	
	n-butylbenzene	µg/l	1	<1	<1				
	n-propylbenzene	µg/l	1	<1	<1				
	n-isopropylbenzene	µg/l	1	<1	<1				
	sec-butylbenzene	µg/l	1	<1	<1			<1	
	Styrene	µg/l	1	<1	<1			<1	
	tert-butylbenzene	µg/l	1	<1	<1				
Metals	Antimony (Filtered)	mg/l	0.005		<0.15			<0.005	
	Arsenic (Filtered)	mg/l	0.001	<0.05	<0.05	<0.05	<0.05	<0.001	
	Beryllium (Filtered)	mg/l	0.001	<0.01	<0.01	<0.01	<0.01	<0.001	
	Boron (Filtered)	mg/l	0.01					<0.01	
	Cadmium (Filtered)	mg/l	0.0001	<0.01	<0.01	<0.01	<0.01	<0.0001	
	Chromium (III-VI) (Filtered)	mg/l	0.001	<0.01	<0.01	<0.01	<0.01	0.002	
	Cobalt (Filtered)	mg/l	0.001	<0.02	<0.02	<0.02	<0.02	<0.001	
	Copper (Filtered)	mg/l	0.001	<0.01	<0.01	<0.01	<0.01	<0.001	
	Manganese (Filtered)	mg/l	0.001	<0.01	<0.01	<0.01	<0.01	<0.001	
	Mercury (Filtered)	mg/l	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0001	
	Molybdenum (Filtered)	mg/l	0.001	<0.03	<0.03	<0.03	<0.03	<0.001	
	Nickel (Filtered)	mg/l	0.001	<0.02	<0.02	<0.02	<0.02	<0.001	
	Selenium	mg/l	0.12		<0.12				
	Selenium (Filtered)	mg/l	0.005					0.013	
	Tin (Filtered)	mg/l	0.005	<0.05	<0.05	<0.05	<0.05	<0.005	
	Vanadium (Filtered)	mg/l	0.005	<0.02	<0.02	<0.02	<0.02	<0.005	
	Zinc (Filtered)	mg/l	0.005	<0.02	<0.02	<0.02	<0.02	0.009	
Organochlorine Pesticides	4,4-DDE	µg/l	0.5					<0.5	
	α-BHC	µg/l	0.5					<0.5	
	Alrin	µg/l	0.5					<0.5	
	β-BHC	µg/l	0.5					<0.5	
	Chlordane (cis)	µg/l	0.5					<0.5	
	Chlordane (trans)	µg/l	0.5					<0.5	
	δ-BHC	µg/l	0.5					<0.5	
	DDD	µg/l	0.5					<0.5	
	DDT	µg/l	2					<2	
	Dieldrin	µg/l	0.5					<0.5	
	Endosulfan I	µg/l	0.5					<0.5	
	Endosulfan II	µg/l	0.5					<0.5	
	Endosulfan sulphate	µg/l	0.5					<0.5	
	Endrin	µg/l	0.5					<0.5	
	Endrin aldehyde	µg/l	0.5					<0.5	
	Endrin ketone	µg/l	0.5					<0.5	
	γ-BHC (Lindane)	µg/l	0.5					<0.5	
	Heptachlor	µg/l	0.5					<0.5	
	Heptachlor epoxide	µg/l	0.5					<0.5	
	Heptachlorbenzene	µg/l	0.5					<0.5	
	Methoxychlor	µg/l	2					<2	
	PAH/Phenols	2-methylphenol	µg/l	2					<2
		2-nitrophenol	µg/l	2					<2
3,4-dimethylphenol		µg/l	4					<4	
4-chloro-3-methylphenol		µg/l	2					<2	
Acenaphthene		µg/l	1	<1	<1			<1	
Acenaphthylene		µg/l	1	<1	<1			<1	
Anthracene		µg/l	1	<1	<1			<1	
Benz(a)anthracene		µg/l	1	<1	<1			<1	
Benzo(a)pyrene		µg/l	1	<1	<1			<1	
Benzo(b)fluoranthene		µg/l	2	<2	<2			<2	
Benzo(g,h,i)perylene		µg/l	1	<1	<1			<1	
Chrysene		µg/l	1	<1	<1			<1	
Dibenz(a,h)anthracene		µg/l	1	<1	<1			<1	
Fluoranthene		µg/l	1	<1	<1			<1	
Fluorene		µg/l	1	<1	<1			<1	
Indeno(1,2,3-c,d)pyrene		µg/l	1	<1	<1			<1	
Naphthalene		µg/l	1	<1	<1			<1	
PAHs (Sum of total)		µg/l	2					<2	
Phenanthrene		µg/l	1	<1	<1			<1	
Phenol		µg/l	2					<2	
Pyrene		µg/l	1	<1	<1			<1	
Polychlorinated Biphenyls		Arochlor 1016	µg/l	5					<5
		Arochlor 1232	µg/l	5					<5
	Arochlor 1242	µg/l	5					<5	
	Arochlor 1248	µg/l	5					<5	
	Arochlor 1254	µg/l	5					<5	
	Arochlor 1260	µg/l	5					<5	
	PCBs (Sum of total)	µg/l	1					<20	
Solvents	Methyl Ethyl Ketone	µg/l	5						
	2-hexanone (MEK)	µg/l	5						
	2-pentanone	µg/l	5						
	4-Methyl-2-pentanone	µg/l	5						
	Ethyl acetate	µg/l	5						
	Vinyl acetate	µg/l	5						
TPH	TPH C6 - C9	µg/L	10	<10	<10			<20	
	TPH C10 - C14	µg/L	50	<50	<50			<50	
	TPH C15 - C28	µg/L	100	<100	<100			<100	
	TPH C29-36	µg/L	100	<100	<100			<100	
	TPH C10 - C36 (Sum of total)	µg/l	200					<200	
VOCs	1,1,1,2-tetrachloroethane	µg/l	5						

Table E3 - Rinsate Blanks

SDG		53321	53366	53406	53466	295938
Field ID		RB1	RB02	RB3	RB04	RB2
Sample Date-Time		22/03/2011	23/03/2011	24/03/2011	25/03/2011	7/04/2011
Sample Type		Rinsate	Rinsate	Rinsate	Rinsate	Rinsate
1,1,1-trichloroethane	µg/l	5				
1,1,2-trichloroethane	µg/l	5				
1,1-dichloroethene	µg/l	5				
1,2,3-trichloropropane	µg/l	5				
1,2,4-trichlorobenzene	µg/l	5				
1,2-dibromoethane	µg/l	5				
1,2-dichlorobenzene	µg/l	5				
1,2-dichloroethane	µg/l	5				
1,3-dichlorobenzene	µg/l	5				
1,4-dichlorobenzene	µg/l	5				
Bromodichloromethane	µg/l	5				
Bromoform	µg/l	5				
Carbon tetrachloride	µg/l	5				
Chlorobenzene	µg/l	5				<5
Chlorodibromomethane	µg/l	5				<5
Chloroethane	µg/l	50				<50
Chloroform	µg/l	5				<5
cis-1,2-dichloroethene	µg/l	5				<5
cis-1,3-dichloropropene	µg/l	5				<5
Dichloromethane	µg/l	20				<20
Hexachlorobutadiene	µg/l	5				<5
Trichloroethene	µg/l	5				<5
Tetrachloroethene	µg/l	5				<5
trans-1,2-dichloroethene	µg/l	5				<5
trans-1,3-dichloropropene	µg/l	5				<5
Trichlorofluoromethane	µg/l	50				<50
Vinyl chloride	µg/l	50				<50



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