PPC Site Surrender Report:

Part 2 - Surrender Data

ALCOA Manufacturing (GB) Ltd,

Waunarlwydd, Swansea

Permit No: BM1377

Prepared on behalf of ALCOA Mill Products

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1.0 INTRODUCTION

1.1 BACKGROUND

ENVIRON UK Limited (ENVIRON) was commissioned by Alcoa Mill Products ("Alcoa") to collect surrender data for the purposes of Alcoa's Site Surrender Report as part of the Pollution Prevention and Control (PPC) Regulations (England and Wales) 2000. The site is the Aluminium Rolling Mill at Waunarlwydd Works, Swansea, South Wales, SA1 1XH (Permit reference EA/PPC/BV0783) and is shown in Figure A1 in Appendix A.

This document comprises Volume 2 of the Site Surrender Report and details the intrusive investigation, testing and sampling that was undertaken in accordance with the Environment Agency (EA) IPPC H8 Guidance and Template and relates to Section 5.7 to 7.1 of the H8 guidance, forming Section 5.0 of the Site Surrender Report.

1.2 OBJECTIVES

The overall objective of the Site Surrender Report (SSR) is to demonstrate that there has been no deterioration in the ground conditions attributable to Permitted activities at the site, or if pollution has occurred, that the site is returned to a satisfactory state where practicable and that pollution risks have been removed.

The objective of this intrusive investigation was to collect surrender data in the Zones of Permitted activities and determine if concentrations of pollutants were attributed to those activities since determination of the Permit (Ref: BM1377) in August 2007.

2.0 SURRENDER DATA

2.1 INTRODUCTION

2.1.1 Background

In accordance with the PPC Site Closure Report (Ref: 64-C11505) dated 31st January 2007, intrusive investigations have been carried out in all areas where a potential pollution pathway, or known contamination has arisen from a Permitted activity during the Permit lifetime.

These investigations have been designed with reference to the following Site Condition Reports:

- Site Condition Report for ALCOA Europe – Flat Rolled Products, Swansea, South Wales, Report No. 61-C5053A, dated 15th November 2001, prepared by ENVIRON; and
- Addendum to the ENVIRON Site Condition Report 15-11.01 for ALCOA Europe – Flat Rolled Products, Swansea, South Wales, dated 9th April 2003, prepared by Natural Solutions.

As the Site Condition Reports for the site precede the current guidance on Application Site Reports (ASR) and Site Protection and Monitoring Programmes (SPMPs), the site has been retrospectively zoned on the basis of the potential for pollution to occur from a Permitted activity. These 'Zones' are number, presented on Figure A3 (Appendix A) and referenced throughout the report. The justification for the delineation of these Zones has been previously discussed with the Environment Agency at on-site meetings with the Environment Agency (EA) on the 22nd February and 14th May 2007.

2.1.2 Intrusive Investigation

In order collect surrender data for the site, an intrusive investigation comprising a combination of rotary boreholes (32 No.), window samples (17 No.), and hand dug trial pits (4 No.) was designed. 155 soil samples and thirty water samples were recovered.

30. No of the boreholes were installed as groundwater and land gas monitoring wells. The construction of the wells was dependant on ground conditions and the potential contaminant source. Details of the monitoring well installations are presented in the exploratory hole logs on Appendix B1.

Soil and groundwater samples were recovered and submitted to an independent MCERTS and UKAS accredited laboratory for chemical analysis. Analysis was undertaken for a range of potential contaminants appropriate to Permitted activities in each of the PPC Zones. The determinands included metals, ammonia, petroleum hydrocarbons, polyaromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). The sample locations and analytical strategy for each Zone is presented in Section 2.6.

One round of gas monitoring of all monitoring wells for volatile hydrocarbon vapours (by PID), methane, carbon dioxide and oxygen together with gas flow rates was undertaken. The gas monitoring data and rest groundwater levels are provided in Table B2 and B3 in Appendix B.

Soil and groundwater results have been screened against statistically justified reference and Baseline Data. Where the reference or Baseline Data is exceeded, the elevated concentrations, together with an identification and justification of the source of the pollution (i.e. whether it is likely to relate to Permitted activities) have been presented.

2.1.3 Report Structure

This PPC Site Surrender Report Volume 2 - Surrender Data presents the results of the collected surrender data from the Zones of Permitted activities and outlines if concentrations of pollutants were attributed to those activities since determination of the Permit (Ref: BM1377) in August 2007. The report is set out in the following sections:

- *Section 2.2*: Sets out the investigation and sampling strategy based on the preliminary conceptual site model.
- *Section 2.3*: Explains the Zones of Permitted activities and rationale for the sample locations.
- *Section 2.4*: Details the analytical techniques, laboratory accreditation and quality control.

- *Section 2.5*: Describes the findings of the site investigation and refines the conceptual site model
- *Section 2.6*: Presents the results of the chemical analysis in soil and groundwater and results of the vapour and land gases for each Zone.
- *Section 2.7*: Provides the comparison of the surrender data with Reference Data or Baseline Data.
- *Section 2.8*: Outlines the schedule of reports.
- *Section 3.0*: Describes the condition of the site at Permit surrender

2.2 INVESTIGATION AND SAMPLING STRATEGY

A preliminary Conceptual Site Model (CSM) was developed in the Site Condition Report (SCR) entitled 'Application for a Permit to Operate a Part A1 Installation under Pollution Prevention and Control Regulations 2000' (produced by ENVIRON in November 2001) and further supplemented by a report entitled 'Addendum to the ENVIRON Site Condition Report', (produced by Natural Solutions Ltd in April 2003). The Site Condition Report CSM is summarised below and a schematic representation from the SCR is presented in Figure A2, Appendix A.

Summary of the Preliminary Conceptual Site Model from the 2001/2003 Site Condition Report

The geology was described as being Made Ground underlain by Alluvium in the northern section of the site. A variable thickness of Boulder Clay underlies the Alluvium (where present). The Boulder Clay is further underlain by Coal Measures at depth. Both the glacial drift deposits and the underlying Coal measures are classified as Minor Aquifers.

Groundwater was identified as being present in the Made Ground, Alluvium and Boulder Clay. Groundwater flow in each of these units was reported to be in a north to north west direction towards the Afon Llan.

Potential migration contamination sources identified in the SCR included:

- Light oil contamination of soil and groundwater and localised free product at

the Effluent Treatment Plant and oil/water separation lagoon;

- Phenolic compounds associated with lubricating oils identified in soils and groundwater at the former oil/water separation lagoon;
- Elevated chromium (III) in soils consistent with background levels known to be present in Swansea Valley Fill (SVF); and
- Elevated concentrations of arsenic in soils along titanium Road (BH14 and BH16).

Migration pathways identified in the SCR included the following:

- Compounds leaching to groundwater via infiltration of precipitation in unsurfaced areas or from leaking pipes;
- Free phase product migrating on the surface of the water table in the direction of groundwater flow;
- Dissolved phase contaminants migrating within the groundwater; and
- Pathways to human receptors through ingestion and inhalation.

Sensitive receptors identified in the SCR included groundwater, surface water (Afon Llan) and workers involved with ground maintenance and construction.

The preliminary CSM presented in the Application Site Condition Report has been further refined during this site surrender process. The following paragraphs present the refined CSM and Figure A6 presents a visual representation of the refined CSM.

Installation Surroundings

Immediately adjacent to the installation boundary are non-operational areas of the ALCOA facility, including a former zip factory and car park area (east) and the former Alcoa Extrusions and End Products facility to the west. An aluminium recycling facility (Aleris Recycling Ltd) also lies to the west of the installation, and a titanium alloy manufacturer (TIMET Ltd) to the north. A railway line lies to the south of the installation, with Waunarlwydd village beyond. Agricultural (grazing) land lies to the west of the recycling facility and the former Alcoa Extrusions and End Products facilities.

Geology

The majority of the installation is underlain by Made Ground, including Swansea Valley Fill in the northern and eastern site boundaries.

The west and north west of the site is underlain by recent Alluvium associated with the Afon Llan, comprising clays, silts, sands and gravels. Alluvium is also present in the vicinity of Gors Fawr Brook, which is culverted though the site. Glacial Boulder Clay is present in the south and east of the site.

The superficial deposits are underlain by the Carboniferous Coal Measures, present at relatively shallow depth and comprising primarily of mudstones and occasionally sandstone units. Coal seams are present in the south of the site. The south of the site is known to have been subject to mining activity and there are records of three disused adits in the south of the site.

Hydrogeology

The alluvium, glacial deposits and Coal Measures are classified by the Environment Agency as Minor Aquifers. Shallow groundwater has been identified within the alluvial deposits and locally within the Boulder Clay with deeper groundwater being present in the Coal Measures. Previous investigations have indicated that groundwater generally flows to the north west, towards the Afon Llan.

Hydrology

The Afon Llan lies approximately 350m north of the boundary of the installation. A culverted stream, the Gors Fawr Brook is culverted though the installation (running parallel to Titanium Road) and discharges in to the Afon Llan.

Principal Contaminant Sources

18 No. PPC 'Zones 'have been defined within the installation which have the potential to cause ground contamination. The Zones, together with their potential contaminants, are summarised in Table 2.1 on the following page and are shown on Figure A3 in Appendix A.

Potential Receptors

Sensitive environmental receptors at the installation include:

- groundwater within the alluvium, Boulder Clay and Coal Measures (Minor Aquifers) underlying the site; and
- surface water in the Gors Fawr Brook and the Afon Llan.

Potential Pathways

Potential pathways between contaminants on site and sensitive environmental receptors are:

- vertical migration of contaminants impacting groundwater within the alluvium, Boulder Clay and deeper Coal Measures; and
- lateral migration of contaminants in groundwater impacting surface water in the culverted Gors Fawr Brook and the Afon Llan.

Table 2.2: Summary of PPC Zones where the Potential for Pollution to Occur has been Identified (Refer to Figure A3)		
Zone	**Activity**	**Potential Contaminants Relating to Permitted Activities**
1 – Ingot Plant Dross Shelter	Undercover storage of aluminium dross prior to removal for off site processing.	Metals, hydrocarbons and ammonia from the dross.
2 – Ingot Plant Tank Farm	Historical storage of oils in 3 No. above ground bunded storage tanks (ASTs). During the life of the Permit, only one AST has been in use, for the storage of red diesel.	Red diesel.
3 – Scalping Mill (scalper)	Machines the aluminium ingot to produce a surface finish suitable for rolling. Lubricant and coolant oils and swarf were collected in a concrete cellar approximately 6m deep beneath the scalper.	Metals, lubricants and hydraulic oils from the cellar.
4 – Engineering Workshop	Maintenance of mill rollers and other equipment.	Lubricants, hydraulic oils, solvents and degreasers.
5 – Hot Mill Cellars	Concrete cellars and sumps are present under the hot mill, up to approximately 9m deep, for the collection of lubricant and cooling oils for recirculation around the cold mill.	Water and vegetable based oil emulsions with proprietary chemical additives.
6 – Hot Mill Waste Oil Tank Farm and Coolant Filter House	Filtration and storage of water and vegetable based lubricant and cooling oils for the hot mill.	Water and vegetable based oil emulsions with proprietary chemical additives collecting in the cellars.
7 – Hot Mill Sub-station	Electrical transformers.	Transformer oils.
8 – Compressor Drainage	A very localised area of unsurfaced ground has been observed to be impacted by oily compressor drainage.	Hydrocarbons.
9 –Stores & IBC Storage Area	Chemical storage building within a dedicated bunded compound, including fuel oils, white spirits, acids and alkalis. This Zone also includes a large covered oil/water drainage interceptor and a smaller uncovered oil/water drainage interceptor.	Hydrocarbons, volatile organic compounds, acids and alkalis.
10 – Cold Mill Sub-stations and Transformers	Electrical transformers. Zone 10 also includes a localised area of hydrocarbon staining on an earth embankment between the sub-station and the cold mill building.	Transformer oils within the electrical sub-station and hydrocarbons on the embankment between the sub-station and mill building.
11 – Cold Mill Cellars	Concrete cellars and sumps are present under the hot mill, up to approximately 9m deep, for the collection of lubricant and cooling oils for recirculation around the cold mill.	Water and vegetable based oil emulsions with proprietary chemical additives collecting within the cellars.
12 – Cold Mill	Filtration and storage of lubricant and cooling oils for the cold mill.	Water and vegetable based oil emulsions with proprietary chemical additives.

Tank Farm	Zone 12 also includes an area of hydrocarbon staining on an unsurfaced earth embankment below a vent stack, between the mill building and the tank farm,	
13 – Effluent Treatment Plant and (ETP) Filter House and Localised oil leak.	Effluent treatment within a dedicated plant, including filtration, neutralisation and settlement. Zone 13 also includes a localised area of hydrocarbon staining on the embankment between the cold mill building and the ETP, believed to be related to a short length of underground pipework transporting oil from a small AST to the cold mill building	Acids, alkalis, metals (including chromium and hexavalent chromium) and hydrocarbons.
14 – Solvent and MEK Storage	Bunded storage of solvents in 2 No. ASTs, used as part of the aluminium coil coating process.	Volatile organic compounds including methyl ethyl ketone (MEK) and hydrocarbons.
15 – Lacquer Storage	Bunded storage of lacquers in 6 No. ASTs, used as part of the aluminium coil coating process.	Lacquers containing volatile and semi-volatile organic compounds and petroleum hydrocarbons.
16 – Waste Drum Storage Compound	Storage of waste chemicals in drums and IBC, including oils and antifreeze within a dedicated bunded compound.	Hydrocarbons, glycols, solvents, acids, alkali's.
17 –Disused Cooling Tower to East of Roll Shop and skip storage area.	External skip storage area, with skips accepting waste from the engineering workshop (Zone 4).	Hydrocarbons, metals and solvents.
18 – Coil Preparation Line	The coil preparation line is separated into two sections; cleaning and acid etching of aluminium coils and chrome plating.	Acids, alkali's, metals (including hexavalent chromium), and solvents.

2.2.1 Site Investigation - General

The intrusive site investigation was undertaken in two phases, between the 5th and 22nd March 2007 and the 11th April and 18th May 2007.

The methods of investigation are described in the following sections. The Permitted Zones investigated, together with sampling locations are shown on Figure A4 in Appendix A. The exploratory hole logs are presented in B1, Appendix B.

The following organisations were involved with the site works:

- ***ENVIRON (UK) Limited*** – a specialist environmental consultancy with a range of services including environmental sciences and health, site characterisation and risk assessment. ENVIRON supervised all excavation work and undertook all soil and groundwater sampling and gas monitoring at the site in accordance with internal site investigation protocols which are detailed in the following sections.

- ***Sub-Sight Surveys Limited*** – specialists in electronic location and mapping of underground services. Sub-Sight Surveys undertook the service clearance of exploratory hole locations at the site;

- ***Drill Cut Limited*** – specialist contractors working in the diamond drilling, sawing and demolition industry. Drill Cut undertook concrete coring at the site;

- ***Cape Site Services Limited*** – environmental drilling and sampling specialists. Cape Site Services Ltd completed the drilling and installation of boreholes and selected window sample holes;

- ***Tor Drilling Limited*** – geotechnical and environmental site investigation contractors. Tor Drilling completed the drilling and installation of selected window sample holes; and

- ***ALcontrol Technichem*** - a UKAS and MCERTS accredited independent testing laboratory. ALcontrol completed all the laboratory analysis of samples recovered at the site.

2.2.2 Investigation Constraints

The following investigation constraints were encountered during the site works:

- buried underground services: the final sampling locations were determined following the location of underground services in each Zone. In a limited number of locations this resulted in relocation of sampling position or sampling from shallow hand excavation pits. The presence of underground services is not considered to have adversely affected the quality of the data collected;
- sub-surface obstructions: BH11_04 (Zone 11, Cold Mill Cellars), BH6_01 (Zone 6, Hot Mill Tank Farm and BH3_01 (Zone 3, Scalper Cellar) refused on substantial concrete obstructions (believed to be bund and cellar foundations) between 0.5m and 1.0m below ground level (m bgl). However, sufficient data was able to be obtained from the remaining sampling location in these Zones; and
- site infrastructure: given the timescale for the investigation, it was not possible to fully decommission all of the site infrastructure prior to sampling. In areas where infrastructure remained (such as tanks and bunds), sample positions were located as close as possible to the potential source areas, taking into account access and Health and Safety considerations.

2.2.3 Soil Investigation and Sampling Techniques and Protocols

The boreholes and window sample holes were logged on site by ENVIRON. Soil samples were collected from each location at regular intervals, on changes in strata and from discrete horizons with the potential to retain contaminants. Any visual and or olfactory evidence of contamination was noted and is recorded on the excavation logs (B1, Appendix B).

Soil samples were screened on site by ENVIRON for volatile organic compounds (VOCs) using a calibrated hand held Photo Ionisation Detector (PID). 'Headspace' testing involves analysing the sealed atmosphere of a soil sample for volatile hydrocarbons. The results act as an indication of contamination in the soil but not an absolute measurement and a wide spectrum of organic vapours can be detected by the PID. The limit of detection for most species is 0.2ppmv.

Selected soil samples were stored in clean containers supplied by the independent UKAS MCERT accredited laboratory suitable for the type of analysis carried out. The samples were

then transported to the laboratory where they were kept at a cool temperature before being analysed.

2.2.4 Groundwater Investigation and Sampling Techniques and Protocols

Groundwater samples were obtained from the installed monitoring wells between the 22nd March 2007 and 17th May 2007 after a 'recovery' period to allow groundwater inside the monitoring wells to equalise. Prior to sampling, water levels were obtained using a dip meter and gas monitoring was undertaken (Section 2.1.5). Where possible the wells were purged of three times their standing volume and then allowed to recharge to at least 80% of the original volume. Samples were generally collected from the wells using dedicated HDPE bailers. In Zones where VOCs were targeted (Zone 14 Solvent and MEK Tanks and Zone 15 Lacquer Tanks), a low flow peristaltic pump was used.

Selected groundwater samples were stored in clean containers supplied by the independent UKAS MCERT accredited laboratory suitable for the type of analysis carried out. The samples were then transported to the laboratory where they were kept at a cool temperature before being analysed.

2.2.5 Soil-Gas and Vapour Investigation and Sampling Techniques and Protocols

Gas monitoring for volatile vapours, methane, carbon dioxide, oxygen, gas flow rates and atmospheric pressure of all installed monitoring wells was undertaken between the 16th March and 15th May 2007 using a calibrated PID and a portable monitoring instrument (LMSXi).

2.2.6 Surface Water Investigation and Sampling Techniques and Protocols

Surface water sampling was not required as part of this investigation.

2.3 SAMPLE LOCATIONS

To ensure that sufficient data was collected for the purpose of the Site Surrender Report, proposed samples locations within each Zone were agreed meetings with the Environment Agency (EA) on the 22nd February and 14th May 2007. The final sample locations were placed as close as possible to those agreed with the EA, allowing for the presence of site

infrastructure (including underground services) and decommissioning work. The sample locations were physically identified using a plan provided by ALCOA and have a horizontal uncertainty of approximately 1 metre. The rationale for each exploratory location is presented in Table 2.3.

Table 2.3: Rationale for Positions of Exploratory Locations

Zone	Sample ID	Justification
1 – Ingot Plant Dross Shelter	BH1_01	Determine the condition of the soils and groundwater immediately underlying the concrete hardstanding of the dross shelter. Analysis results from BH1_01will be compared against data from BH4 and BH5 (Natural Solutions, 2003) and BH17 (Geraghty & Miller, 1993) located in this Zone and referred to in the SCR.
2 – Ingot Plant Tank Farm	BH2_01 BH2_02 BH2_03	Assess the impact on shallow soils and groundwater in the vicinity of the ingot plant tank farm red diesel storage. Analysis results from monitoring wells in Zone 2 will be compared against data from BH2 (Natural Solutions, 2003) and BH5 (Geraghty & Miller, 1993) located in this Zone and referred to in the SCR.
3 - Scalper	BH3_01 BH3_02 BH3_03	Assess the impact on groundwater from the collection of hydrocarbons in the scalper cellar (approximately 6m deep).
4 – Engineering Workshop	BH4_01 WS4_01 WS4_02	Assess the impact on shallow soils maintenance activities (lubricants, hydrocarbons and degreasers).
5 – Hot Mill Cellars	BH5_01 BH5_02 BH5_03	Assess the potential impact on deep groundwater from the use of vegetable based lubricants and coolants in the hot mill, specifically the presence of a deep (c.9m) cellar and sump used for the storage and recirculation of oils. Provide information on the deeper geology.
6 – Hot Mill Tank Farm and Filter House	BH6_01 BH6_02 BH6_03	Assess the potential impact on shallow groundwater and soils from the storage and recirculation of Hot Mill oils. Analysis results from monitoring wells in Zone 6 will be compared against data from BH18 (Natural Solutions, 2003) located in this Zone and referred to in the SCR.
7 – Hot Mill Sub-stations	WS7_01 SS7_01 SS7_02	Assess the impact on surface and shallow soils from transformer oils (including the potential for PCBs to be present).
8 – Compressor Drainage	HP8_01	Assess the extent of visually impacted shallow soils from a localised area of oily compressor drainage.
9 – Chemical and Petroleum Storage area and Drainage Interceptors	BH9_01 to BH9_014 WS9_01 HP9_01 HP9_02	Assess the impact on shallow soils and groundwater underlying the chemical storage area and in the vicinity of two oil/water drainage interceptors. Designed to provide information on ground conditions, including the potential for the historical import of Swansea Valley Fill.
10 – Cold mill substations and transformers	SS10_01 to SS_01, SS_07 to SS10_10	Assess the impact on surface soils from transformer oils (including the potential for PCBs to be present).
	SS_04 to SS_06	Assess the impact on surface soils (locally visibly stained with hydrocarbons) on the embankment between the cold mill substation and the mill building.
11 – Cold Mill Cellars	BH11_01 BH11_02 BH11_03	Assess the potential impact on deep groundwater from the collection of use lubricants and coolants in the Cold Mill, specifically the presence of a deep (approximately 9m) cellar and sump used for the

Table 2.3: Rationale for Positions of Exploratory Locations		
		storage and recirculation of oils. Provide information on the deeper geology.
12 – Cold Mill Tank Farm	BH12_01 BH12_02	Assess the impact on shallow groundwater soils from the storage of Cold Mill oils. Analysis results from monitoring wells in Zone 12 will be compared against data from BH7, BH8, BH9 and BH10 (Natural Solutions, 2003), BH15 (Geraghty & Miller, 1993) and BH1and BH3 (Applied Geology, 1992) located in this Zone and referred to in the SCR.
13 - Effluent Treatment Plant (ETP), and localised oil leak	BH13_01	Assess the potential impact on shallow soils and groundwater from the ETP (hydrocarbons, acids, alkalis and metals) and its associated shallow sumps. Also located to the north of the historical oil/water separator lagoon. Analysis results from monitoring wells in Zone 13 will be compared against data from BH11, BH12 and BH13 (Natural Solutions, 2003), BH13 and BH14 (Geraghty & Miller, 1993) and BH2, BH4, BH5, BH6, BH7, BH8 and BH9 (Applied Geology, 1992) located in this Zone and referred to in the SCR.
	WS13_01 to WS13_05 BH13_02 BH13_03	Assess the potential impact on shallow soils and groundwater from the ETP (hydrocarbons, acids, alkalis and metals (including hexavalent chromium) and its associated tanks and sumps.
	HP13_01	To assess the vertical extent and severity of the oil staining present on the bank between the cold mill building and the ETP, believed to be related to a short underground oils supply pipe.
14 – Solvent and MEK Storage	BH14_01 WS14_01 WS14_02	Assess the potential impact on shallow soils and groundwater from the above ground storage tanks and dispensing of solvents including MEK. Analysis results from monitoring wells in Zone 14 will be compared against data from BH16 (Natural Solutions, 2003) located in this Zone and referred to in the SCR.
15 - Lacquer Storage	BH15_01 WS15_01 WS15_02	Assess the potential impact on shallow soils and groundwater from the above ground storage and dispensing of petroleum based lacquers.
16 – Waste Drum Storage Compound	BH16_01 WS16_01 WS16_02 WS16_03	Assess the potential impact on shallow soils and groundwater (waste oils, antifreeze and solvents) adjacent to the bunded compound where localised hydrocarbon staining is visible. Analysis results from monitoring wells in Zone 16 will be compared against data from BH14 (Natural Solutions, 2003) located in this Zone and referred to in the SCR.
17 – Disused Cooling Tower to East of Roll Shop	BH17_01 WS17_01 WS17_02	Assess the potential impact on shallow soils and groundwater from skips accepting waste from the engineering workshop (Zone 4, hydrocarbons, metals and solvents). There is localised visual evidence of hydrocarbon staining on concrete and gravel hardstanding. The former hot mill coolant tower also occupies this area, but is now disused.
18 – Coil Preparation Line	BH18_01 BH18_02	Assess the potential impact on shallow soils and groundwater from the use of acids, alkalis and metals (including hexavalent chromium)
BH: Borehole location WS: Window Sample location HP: Hand Pit location SS: Surface sample location		

The analytical suites for each Zone are summarised in Table 2.3.1 to 2.3.18 below. The analytical strategy was designed to assess potential contaminants associated with Permitted activities within each Zone.

Zone 1 – Ingot Plant Dross Shelter

Table 2.3.1: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	2	1
pH	General parameter	3	1
Sulphate (Total acid soluble) as SO_4	General analysis	2	-
Exchangeable Ammonium as N	Target analysis for ammonia	3	1
Organic Carbon	Risk assessment parameter	3	-
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons	3	1
PAH Suite	Target analysis for PAHs	1	1
SVOC Suite	General analysis	1	-
VOC Suite	General analysis	1	-

Zone 2 – Ingot Plant Tank Farm

Table 2.3.2: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	General analysis	4	3
pH	General parameter	7	3
Sulphate (Total acid soluble) as SO_4	General analysis	2	-
Exchangeable Ammonium as N	General analysis	-	3
Organic Carbon	Risk assessment parameter	8	-
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons and diesel	-	2
EPH Suite	Target analysis for hydrocarbons and diesel	7	1
PAH Suite	Target analysis for PAHs	6	3
SVOC Suite	General analysis	1	-
TPH CWG Suite	Target analysis for hydrocarbons and diesel	-	1
BTEX Suite	General analysis for fuel constituents	2	-
VOC Suite	General analysis	5	3

Zone 3 – Scalper

Table 2.3.3: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	2	2
pH	General parameter	2	2
Exchangeable Ammonium as N	General analysis	-	1
Organic Carbon	Risk assessment parameter	1	
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons, oils and lubricants	1	1
PAH Suite	Target analysis for PAHs	2	2
TPH CWG Suite	Target analysis for hydrocarbons, oils and lubricants	1	1
BTEX Suite	General analysis for fuel constituents	1	-
VOC Suite	General analysis	-	2

Zone 4 – Engineering Workshop

Table 2.3.4: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	7	-
pH	General parameter	6	-
Sulphate (Total acid soluble) as SO_4	General analysis	5	-
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons, lubricants and degreasers	6	-
PAH Suite	Target analysis for PAHs	5	-
TPH CWG Suite	Target analysis for hydrocarbons, lubricants and degreasers	1	-
SVOC Suite	General analysis	1	-
BTEX Suite	General analysis for fuel constituents	1	-
VOC Suite	General analysis	1	-
Asbestos	Target analysis	2	-

Zone 5 – Hot Mill Cellars

Table 2.3.5: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	7	2
pH	General parameter	8	3
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils, lubricants and coolants	6	2
PAH Suite	Target analysis for PAHs	4	2
TPH CWG Suite	Target analysis for oils, lubricants and coolants	1	1
BTEX Suite	General analysis for fuel constituents	4	-
VOC Suite	General analysis	2	2

Zone 6 – Hot Mill Tank Farm and Filter House

Table 2.3.6: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	2	2
pH	Risk assessment parameter	5	2
Sulphate (Total acid soluble) as SO_4	General analysis	6	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils	4	1
PAH Suite	Target analysis for PAHs	4	2
TPH CWG Suite	Target analysis for oils	1	1
SVOC Suite	General analysis	1	-
BTEX Suite	General analysis for fuel constituents	3	-
VOC Suite	General analysis	2	2
Asbestos	Target analysis	1	-

Zone 7 – Hot Mill Sub-Stations

Table 2.3.7: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
pH	Risk assessment parameter	2	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils	3	-
PCB Suite	Target analysis for transformer oils	3	-
BTEX Suite	General analysis for fuel constituents	1	-

Zone 8 – Compressor Drainage

Table 2.3.8: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	1	-
pH	Risk assessment parameter	2	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils and hydrocarbons	2	-
PAH Suite	Target analysis for PAHs	1	-
BTEX Suite	General analysis for fuel constituents	1	-

Zone 9 – Chemical and Petroleum Storage Area and Drainage Interceptors

Table 2.3.9: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	9	2
pH	Risk assessment parameter	14	4
Exchangeable Ammonium as N	General analysis	2	1
Organic Carbon	Risk assessment parameter	5	-
Water soluble chloride	Target analysis for chloride acids	2	-
EPH ($C_{10} – C_{40}$)	Target analysis for fuel, oil and white spirit constituents	9	4
Phenols Suite	General analysis for solvents and fuel constituents	2	-
PAH Suite	Target analysis for PAHs	9	4
TPH CWG Suite	Target analysis for fuel and oil	1	-
BTEX Suite	General analysis fuel constituents	3	-
VOC Suite	General analysis	5	4

Zone 10 – Cold Mill Sub-stations and Transformers

Table 2.3.10: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
pH	Risk assessment parameter	3	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils	10	-
PCB Suite	Target analysis for transformer oils	8	-
BTEX Suite	General analysis for fuel constituents	4	-

Zone 11 – Cold Mill Cellars

Table 2.3.11: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	7	2
pH	Risk assessment parameter	7	3
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils, lubricants and coolants	7	2
PAH Suite	Target analysis for PAHs	2	3
TPH CWG Suite	Target analysis for oils, lubricants and coolants	-	1
BTEX Suite	General analysis for fuel constituents	3	-
VOC Suite	General analysis	2	2

Zone 12 – Cold Mill Tank Farm

Table 2.3.12: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	4	1
pH	Risk assessment parameter	9	2
Sulphate (Total acid soluble) as SO_4	General analysis	6	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils hydrocarbons	7	1
EPH Suite	Target analysis for oils hydrocarbons	2	1
VPH Suite	Target analysis for oils hydrocarbons	-	1
PAH Suite	Target analysis for PAHs	8	1
TPH CWG Suite	Target analysis for oils and hydrocarbons	2	1
SVOC Suite	General analysis	-	1
BTEX Suite	General analysis for fuel constituents	-	1
VOC Suite	General analysis	2	1
Asbestos	Target analysis	1	-

Zone 13 – Effluent Treatment Plant, Chemical Basement and Localised Oil Leak

Table 2.3.13: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	19	3
pH	Risk assessment parameter	20	3
Hexavalent Chromium	Target analysis for chromic acid	18	3
Sulphate (Total acid soluble) as SO_4	General analysis	1	1
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons	16	2
Phenols Suite	General analysis for solvents and fuel constituents	3	-
PAH Suite	Target analysis for PAHs	8	3
TPH CWG Suite	Target analysis for hydrocarbons	4	1
SVOC Suite	General analysis	1	-
BTEX Suite	General analysis for fuel constituents	5	-
VOC Suite	General analysis	6	2

Zone 14 – Solvent and MEK Storage

Table 2.3.14: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	2	1
pH	Risk assessment parameter	4	1
Sulphate (Total acid soluble) as SO_4	General analysis	1	-
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for hydrocarbons	4	1
PAH Suite	Target analysis for PAHs	1	1
SVOC Suite	General analysis	1	1
VOC Suite	General analysis	2	1

Zone 15 – Lacquer Store

Table 2.3.15: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	1	1
pH	Risk assessment parameter	2	1
Sulphate (Total acid soluble) as SO_4	General analysis	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for petroleum based lacquers	-	1
Organic Carbon	Risk assessment parameter	1	-
PAH Suite	Target analysis for PAHs	1	1
TPH CWG Suite	Target analysis for petroleum based lacquers	1	
SVOC Suite	General analysis	1	1
VOC Suite	General analysis	2	1

Zone 16 – Waste Drum Storage Compound

Table 2.3.16: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	3	-
pH	Risk assessment parameter	7	1
Organic Carbon	Risk assessment parameter	2	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils and hydrocarbons	6	1
Glycol Suite	Target analysis for glycols	3	1
PAH Suite	Target analysis for PAHs	3	1
TPH CWG Suite	Target analysis for oils and hydrocarbons	2	-
BTEX Suite	Target analysis for fuel constituents	2	-
VOC Suite	General analysis	4	1

Zone 17 – Disused Cooling Tower to East of Roll Shop

Table 2.3.17: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	7	1
pH	Risk assessment parameter	8	1
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	Target analysis for oils and hydrocarbons	6	-
PAH Suite	Target analysis for PAHs	5	1
TPH CWG Suite	Target analysis for oils and hydrocarbons	2	1
BTEX Suite	Target analysis for fuel constituents	3	-
VOC Suite	General analysis	3	1

Zone 18 – Coil Preparation Line

Table 2.3.18: Summary of Laboratory Analysis Undertaken			
Analytical Suite	**Comment**	**No. of soil samples**	**No. of ground-water samples**
Metal Suite	Target analysis for metals	6	2
pH	Risk assessment parameter	7	2
Hexavalent Chromium	Target analysis for chromic acid	7	2
Sulphate (Total acid soluble) as SO_4	General analysis	4	1
Organic Carbon	Risk assessment parameter	1	-
EPH ($C_{10} – C_{40}$)	General analysis for fuels and oils	4	1
PAH Suite	General analysis for PAHs	2	1
VOC Suite	General analysis	2	1

2.4 ANALYTICAL/FIELD TECHNIQUES AND DETECTION LIMITS, LABORATORY ACCREDITATION/QUALITY ASSURANCE AND QUALITY CONTROL

All laboratory chemical analysis was undertaken by ALcontrol Laboratories Ltd. ALcontrol are a MCERTS ISO 17025 and UKAS accredited laboratory. The laboratory also participates in CONTEST, Aquacheck and LPH proficiency testing schemes.

Internal quality control procedures include analysis of blanks with each batch of work, certified reference materials (where available) or spiked standards are run where required together with duplicates. Shewart control charts are used to ensure that quality criteria are met before any results are reported.

The laboratory runs a system of internal quality audits and has a non-conformance procedure in place.

Details of the individual analytical techniques and detection limits, laboratory accreditation and quality control are presented in Appendix D on the analytical certificates.

2.5 FINDINGS OF THE GROUND INVESTIGATION

2.5.1 Summary of Physical Conditions

The strata encountered beneath the site were generally found to be consistent with published information and geological mapping. A description of each unit encountered is provided below. Detailed descriptions of the ground condition encountered at each sampling location are provided in tables in sections 2.5.3 to 2.5.20.

Made Ground (i.e. fill materials) of a variable thickness was encountered at all exploratory locations and typically comprised sandy gravelly clay containing varying proportions of construction type materials (generally brick and concrete). Made Ground comprising slag and clinker (Swansea Valley Fill) was present in four locations towards western area of the installation.

Recent Alluvium Deposits were present beneath the Made ground mainly in the northern half of the site. The Alluvium deposits generally comprised horizons of clayey gravelly sands,

sandy gravelly clay and sand and gravel. The alluvium is likely to be associated with the Gors Fawr Brook, now culverted along the boundary of the installation with Titanium Road, and with the Afon Llan to the north of the installation.

Glacial Deposits (Boulder Clay) was predominately found to underlie the Made Ground in the central of the installation or beneath the Alluvium in the north of the installation. The Boulder Clay generally comprised stiff sandy clay with varying proportions of sandstone and mudstone gravels, locally tending to clayey sand and gravel.

The solid geology underlying the superficial deposits across the entire site was the **Swansea Beds** (part of the Carboniferous Coal Measures). The Coal Measures comprised mudstones with occasional sandstone horizons. Thin coal seams are present underlying the south of the installation.

The geological and hydrogeological conditions encountered in each Zone are described in the following sections. Borehole and window sample hole logs are presented in Appendix B and rest groundwater levels are provided in Table B3 in Appendix B.

2.5.2 Refinement of Conceptual Site Model

The SCR stated that the Swansea Valley Fill (SVF) was present in the northern and eastern areas of the site. Made Ground comprising SVF was also observed to be present underlying Zone 9 (Chemical Compound) in the north west corner of the installation, Zone 8 (compressor drainage) and Zone 17 (disused hot mill coolant tower) located towards the centre of installation.

Alluvium deposits have been identified underlying the Made Ground in central to north of the installation, in the vicinity of Gors Fawr Brook, which is culverted though the site.

The SCR states that Boulder Clay is present beneath the entire site. This investigation has identified that Boulder Clay underlies the Made Ground in the centre of the installation and the alluvium deposits in the centre to northern areas. However, the Coal Measures were observed to be present directly beneath the Made Ground in Zone 1, 2 and 3 (located in the south of the site).

In addition to the Afon Llan identified in the SCR, the Gors Fawr Brook, which is culverted though the installation (running parallel to Titanium Road), has been identified as an additional potential receptor.

The SCR identified groundwater as being present in the Made Ground, Alluvium and Boulder Clay. This investigation has identified groundwater bodies in the Alluvium, and also perched within Boulder Clay overlying the Coal Measures. Deeper groundwater was also encountered within the Coal Measures where superficial deposits were present overlying the Coal Measures, the groundwater in the Coal Measures was generally confined beneath the superficials, where Coal measures are directly overlain by Made Ground the groundwater was generally unconfined. Groundwater flow direction is general in a northerly direction.

2.5.3 Zone 1 – Ingot Plant Dross Shelter

2.5.3: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground at BH1_01comprised rough concrete to 0.35m bgl over dark grey dry friable SILT. The dark grey silt was further underlain by dense fine SAND.	Made Ground was encountered to a depth of 1.5m bgl in BH1_01.
Coal Measures	Recovered as dry MUDSTONE fragments with thin sandstone horizons.	Encountered beneath the Made Ground in BH1_01 to a depth of 13.0m bgl.
m bgl – metres below ground level		

Field observations of a strong ammonia odour were noted in the Made Ground of BH1_01 and a fainter ammonia odour was noted to be present in the Mudstone to a depth of 2.0m bgl. No other visual or olfactory evidence of contamination was noted in BH1_01 during the site investigation.

Groundwater was not encountered during the drilling; however, a rest groundwater level of 0.785m bgl was monitored in BH1_01 on 16th March 2007, resulting from slow groundwater seepage at depth within the mudstone.

2.5.4 Zone 2 – Ingot Plant Tank Farm

2.5.4: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised concrete to a maximum depth of 0.3m bgl (BH2_02) over a layer of gravel sub-base. The sub base was underlain by brown to grey brown sandy CLAY. Quartzite fragments were present in BH2_03.	Made Ground was present in depths of between 0.3m bgl (BH2_02) to 1.2m bgl (BH2_03).
Weathered Coal Measures	Generally recovered as grey brown or orange brown sandy CLAY or SILT with fragments of weathered sandstone. Becomes a grey friable weak MUDSTONE with depth.	Encountered beneath the Made Ground in all locations. Proven to a maximum depth of 6.5m bgl in BH2_02.
m bgl – metres below ground level		

Field observations of a slightly sweet hydrocarbon odour were noted in the weathered Coal Measures of BH2_03 between 1.2m bgl and 4.0m bgl. In addition, a hydrocarbon odour and sheen was present in the groundwater at BH2_03.

Groundwater was encountered within a weathered sandstone horizon in the Coal Measures in BH2_01 at 2.0m bgl and BH2_03 at 2.5m bgl. No groundwater was present during the drilling at BH2_02; however, 0.8m of groundwater was present in the base of the well after twenty minutes standing time. Rest groundwater levels were recorded between 1.26m bgl (BH2_02) and 3.23m bgl (BH2_03) on 16th March 2007.

2.5.5 Zone 3 – Scalper

2.5.5: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised concrete to a maximum depth of 0.35m bgl (BH3_01 and BH3_02) over a sand and gravel sub-base or a fragmented coal seam with clay pockets and sandstone and concrete fragments (BH3_02). A concrete obstruction was encountered in BH3_01 at 1.5m bgl.	Made Ground was proven to a maximum depth of 1.7m bgl in BH3_01.
Coal Measures	Recovered as grey weathered MUDSTONE with occasional fragments of clayey mudstone and thin bands of sandstone. Layers of bituminous coal recovered as black grey dust were present at 4.5m bgl and 5.5m bgl.	Encountered beneath the Made Ground in BH3_02 to a depth of 10.0m bgl.
m bgl – metres below ground level		

Other than a metal strip present in the Made Ground at BH3_02, no other visual or olfactory evidence of contamination was noted in Zone 3.

Groundwater was not encountered during the drilling of BH3_02; however, a rest groundwater level of 1.55m bgl was monitored in BH3_02 on 9th May 2007. Rapid groundwater ingress was encountered at the base of the BH3_03, interpreted to be within a strong sandstone horizon at approximately 6.0m depth, which rose to 1.55m bgl.

2.5.6 Zone 4 – Engineering Workshop

2.5.6: Summary of ground conditions encountered

Strata	Description	Strata Depths
Made Ground	The Made Ground comprised concrete to a maximum depth of 0.4m bgl (BH4_01 and WS4_01) over a sand and gravel sub-base with ash, fine gravels and brick fragments (BH4_01 and WS4_02) or directly onto the natural strata (WS4_01). An obstruction by a possible steel plate was encountered in WS04_02 at 0.3m bgl and the window sample was terminated.	Made Ground was encountered at depths of between 0.4m bgl (WS4_01) and 3.0m bgl (BH4_01).
Boulder Clay	Recovered as stiff orange brown sandy gravelly CLAY in WS04_01.	Encountered beneath the concrete in WS04_01 and proven to a depth of 1.6m bgl.
Glacial Deposits	Recovered as grey brown gravelly SAND or SILT in BH04_01. Gravels comprise sandstone and quartzite.	Encountered beneath the Made Ground in BH04_01 and proven to a depth of 8.0m bgl.
m bgl – metres below ground level		

Other than black ash present in the Made Ground at BH04_01, no other visual or olfactory evidence of contamination was noted during the site investigation. Groundwater was not encountered.

2.5.7 Zone 5 – Hot Mill Cellars

2.5.7: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground generally comprised concrete to 0.3m bgl (BH5_02 and BH5_03) over brown gravelly clay with fill including brick, concrete and wood fragments (BH5_01 and BH5_02) or a gravel sub-base (BH5_03).	Made Ground was encountered between 0.45m bgl (BH5_03) and proven to 6.5m bgl in BH5_01 where the borehole was terminated.
Alluvium	Recovered as grey sandy GRAVEL over green sandy CLAY.	Alluvium was encountered beneath the Made Ground in BH5_03 to a depth of 3.3m bgl.
Boulder Clay	Recovered as brown silty gravelly CLAY. Gravels comprised sandstone and mudstone.	Boulder Clay encountered beneath the Made Ground in BH5_02 to a depth of 8.0m bgl.
Coal Measures	Recovered as fine grained fragments of grey brown sandstone, siltstone and mudstone.	Encountered beneath the Alluvium (BH5_03) and Boulder Clay (BH5_02) and was proven to a depth of 13.0m bgl in BH5_02.
m bgl – metres below ground level		

A diesel like odour was noted to be present in the Alluvium deposits in BH5_03. The odour was strongest between 1.6m bgl to 2.0m bgl and it was observed to be wet at the base of the alluvium deposits.

Groundwater was encountered in the Made Ground of BH5_01 at 6.0m bgl and in the Boulder Clay of BH5_02 at 8.0m bgl. This deep Made Ground is likely to relate to the construction of the cellars. No groundwater was encountered during drilling of BH5_03, although a seepage occurred in the well over time. Rest groundwater levels of 1.4m bgl (BH5_01 and BH5_03) and 3.07m bgl (BH5_02) were recorded between 19th and 21st March 2007.

2.5.8 Zone 6 – Hot Mill Waste Oil Tank Farm and Coolant Filter House

2.5.6: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised asphalt over grey sandy gravelly CLAY or SAND and GRAVEL. A concrete obstruction was encountered in BH6_01 at 1.2m bgl.	Made Ground was present to between 0.5m bgl (BH6_01) and 1.2m bgl. BH6_01 was terminated on a concrete obstruction at 1.2m bgl.
Glacial Deposits	Recovered as brown grey friable gravelly CLAY.	Encountered beneath the Made Ground at 4.3m bgl in BH6_03 and 6.0m bgl in BH6_02.
Weathered Coal Measured	Recovered as stiff grey weathered MUDSTONE.	Encountered beneath the Glacial Deposits at BH6_02 to a depth of 9.0m bgl.
m bgl – metres below ground level		

Hydrocarbon odours were noted in the Made Ground within (BH6_01) and (BH6_03) to a depth of 1.0m bgl. No other visual or olfactory evidence of contamination was noted.

Groundwater was only encountered in the Glacial Deposits of BH6_03 at 4.0m bgl during drilling. Rest groundwater levels of 0.45m bgl (BH6_03) and 1.35m bgl (BH6_02, seepage from within the Coal Measures) were recorded on 3rd May 2007.

2.5.9 Zone 7 – Hot Mill Sub-Stations

2.5.9: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground at WS07_01comprised concrete to 0.1m bgl over silty sandy GRAVELS. Larger gravels and cobbles present below 0.5m bgl.	Made Ground was proven to a depth of 1.2m bgl in WS07_01 where the borehole was terminated.
m bgl – metres below ground level		

No visual or olfactory evidence of contamination was noted during the site investigation. Groundwater was not investigated in Zone 7.

2.5.10 Zone 8 – Compressor Drainage

2.5.10: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground at HP8_01 comprised stained chippings and dead vegetation over chippings in a yellow brown silty matrix to 0.2m bgl. The chippings were further underlain by sandy gravelly CLAY with cobble size fragments of slag.	Made Ground was proven to a depth of 0.6m bgl in HP8_01 where the hand pit was terminated.
m bgl – metres below ground level		

Oily water and staining from the compressor drainage was observed to be collecting within the hand pit in the upper 0.3m of the hand pit. In addition cobble sized fragments of slag were noted to be present below 0.3m bgl.

2.5.11 Zone 9 –Stores & IBC Storage Area

2.5.11: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground generally comprised either concrete (within the bund) or tarmac (adjacent to the interceptor) over dense gravels with occasional brick and concrete fragments or orange brown sandy gravely CLAY with occasional clinker and coal (WS9_01). No hard covering was present at BH9-03. Made Ground in the vicinity of the interceptor (HP9_01 and HP9_02) comprised sandy gravely silty CLAY. Fill included occasional slag, brick, concrete, metal and coal.	Made Ground was encountered to depths of between 1.8m bgl (BH9_02 and BH9_04) to 3.2m bgl (WS9_01). Made Ground in the vicinity of the interceptor was proven to a depth of 0.7m bgl in HP9_02 and 1.2m bgl in HP9_01where the hand pits were terminated.
Alluvium	Generally recovered as brown black silty CLAY with frequent organic material and a natural organic odour.	Encountered beneath the Made Ground, thickness between 1.8m bgl (BH9_02 and BH9_04) and 4.5m bgl (BH9_01).
Glacial Deposits	Recovered as brown clayey SAND and GRAVEL.	Encountered beneath the Alluvium and proven to a maximum depth of 7.0m bgl at BH9_01.
m bgl – metres below ground level		

Field observations of a moderately sweet hydrocarbon odour (between 0.25m bgl and 0.5m bgl) and occasional clinker (below 2.5m bgl) were noted to be present in the Made Ground of WS9_01.

Occasional slag fragments and ash were observed to be present in the Made Ground at HP9_01 and HP9_02 located in the vicinity of the interceptor. In addition, fragments of coal and occasional lenses of black oil were observed to be present in the Made ground in HP9_02.

Groundwater was encountered in the Glacial Deposits of BH9_01 (4.8m bgl), BH9_02 (4.5m bgl) and BH9_04 (4.2m bgl) and in the Alluvium of BH9_03 at a depth of 2.5m bgl. Rest groundwater levels of between 2.21m bgl (BH9_02) and 2.63m bgl (BH9_01 and BH9_04) were recorded between 6th and 19th March 2007.

2.5.12 Zone 10 – Cold Mill Sub-Station and Transformers

Samples were collected from the gravel surface at the Cold Mill Sub-Station and Transformers to assess the impact on surface soils from transformer oils and hydrocarbons. The surface soils comprised grey silty sandy limestone gravel. Deeper intrusive investigation was not under taken.

2.5.13 Zone 11 – Cold Mill Cellars

2.5.13: Summary of ground conditions encountered

Strata	Description	Strata Depths
Made Ground	The Made Ground comprised concrete to 0.5m bgl over silty SAND and GRAVEL sub-base or a gravelly CLAY which becomes silty clay with sandy pockets (BH11_02). The sub-base in BH11_01 was further underlain by a gravelly fill comprising mudstone, sandstone and occasional brick fragments. A concrete obstruction was encountered in BH11_04 at 0.75m bgl.	Made Ground was encountered between depths of 4.0m bgl (BH11_03) and 5.3m bgl (BH11_02). The Made Ground was encountered to 0.75m bgl in BH11_01, where the borehole was terminated.
Alluvium	Generally recovered as green brown or orange brown sandy silty CLAY.	Encountered beneath the Made Ground in BH11_01 to 5.5m bgl and in BH11_03 to 7.0m bgl.
Coal Measures	Recovered as fragments of sandstone or grey mudstone.	Encountered directly under the Made Ground in BH11_02 or beneath the Alluvium deposits of BH11_01 and BH11_03. Proven to a maximum depth of 11.0m bgl in BH11_01.
m bgl – metres below ground level		

Field observations of a possible faint hydrocarbon odour were noted to be present in BH11_01 within the sandstones (Coal Measures) between 5.5m bgl and 6.0m bgl. No other visual or olfactory evidence of contamination was noted in BH1_01 during the site investigation.

Groundwater was encountered in the Coal Measures at depths of 7.0m bgl (BH11_02 and BH11_03) and 10.7m bgl (BH11_01). Groundwater was additionally encountered within the shallower Alluvium deposits in BH11_01 at a depth of between 4.5 to 5.5m bgl. Rest groundwater levels of between 3.93m bgl (BH11_03) and 4.54m bgl (BH11_03) were recorded on the 19th March 2007.

2.5.14 Zone 12 – Cold Mill Tank Farm

2.5.14: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground generally comprised concrete to 0.3m bgl overlying grey silty or clayey SAND and GRAVEL. Gravels comprised limestone or sandstone. The clayey gravel in BH12_01 was further underlain by slightly gravelly clay.	Made Ground was encountered to 1.3m bgl in BH12_02 and was proven to depths of 3.0m bgl (WS12_01) and 4.6m bgl (BH12_01).
Alluvium	Recovered as green brown becoming orange brown sandy CLAY which becomes clayey GRAVELS below 2.0m bgl.	Encountered beneath the Made Ground in BH12_02 and was proven to a depth of 6.0m bgl.
m bgl – metres below ground level		

Groundwater was encountered in the Made Ground of BH12_01 at 3.0m bgl and in the Alluvium deposits of BH12_02 at 2.5m bgl. Rest groundwater levels of between 1.12m bgl (BH12_02) and 1.46m bgl (BH12_01) were recorded between 8th and 15th March 2007.

No visual or olfactory evidence of contamination was noted during drilling. However, site investigations undertaken prior to the operation of the PPC Permit have identified free phase kerosene based hydrocarbons adjacent to the west of the cold mill tank farm bund. Kerosene has not been used or stored in large quantities at the site since 1983 and this identified kerosene plume does not relate to PPC Permitted activities.

No free phase hydrocarbon product was identified in BH12_01 or BH12_02 (located to the north of the filter house and to the north of the cold mill tank farm bund respectively) during drilling or during monitoring between the 8th and 15th March 2007. However, a second round

of groundwater monitoring on the 1st June 2006 identified a layer of free phase hydrocarbons in BH12_01 between 1.4m bgl and 1.42m bgl (20mm thick). No free phase hydrocarbons were identified in BH12_02 during the second round of monitoring.

The free phase hydrocarbons identified in BH12_01 relate to the kerosene based product identified prior to the operation of the Permit.

Visible surface contamination was observed on the earth embankment to the south of the Cold Mill Tank Farm, originating from the Cold Mill fume extraction stack.

2.5.15 Zone 13– ETP, Filter House, Chemical Basement and Oil Leak

2.5.15: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground generally comprised concrete to depths of between 0.2m bgl and 0.3m bgl overlying grey, occasionally clayey, SAND and GRAVEL with frequent wet hydrocarbon staining. No concrete hardstanding was present at BH13_03, WS13_05 and HP13_01. The SAND and GRAVEL was further underlain by gravelly CLAY in BH13_03 and WS13_01.	Made Ground was encountered between depths of 0.55m bgl (HP13_01) and 2.6m bgl (WS13_01).
Alluvium	Recovered as grey brown sandy or silty CLAY. The clay generally becomes gravelly with depth.	Encountered beneath the Made Ground and was proven to a depth of 4.8m bgl in BH13_01and BH13_02.
Weathered Coal Measures	Recovered as fragments of grey mudstone and sandstone.	Encountered beneath the Alluvium in BH13_03 at 4.0m bgl and was proven to a depth of 4.5m bgl.
m bgl – metres below ground level		

Field observations of black hydrocarbon staining in the shallow Made Ground were observed to be present in BH13_03 and WS13_05. A hydrocarbon odour, grey or black staining and an oily sheen was present in the Made Ground of WS13_01 from 0.8m bgl to 2.5m bgl and black staining and a strong unidentifiable odour were present in the Made Ground in WS13_02 below 1.8m bgl. A faint hydrocarbon odour was detected within the Alluvium in BH13_02 between 1.25m bgl to 1.75m bgl.

HP 13_01 was located to target an area of surface staining on the earth embankment between the ETP and the Coil Preparation Line Building. A moderately strong becoming faint

unidentified odour was noted to be present in the Made Ground and Alluvium of HP13_01 from 0.5m bgl to 0.6m bgl.

Groundwater was encountered in the Made Ground of BH13_03 at 1.5m bgl and in the Alluvium deposits of BH13_02 (1.6m bgl) and BH13_01 (2.2m bgl). Rest groundwater levels of between 0.5m bgl (BH13_02) and 1.05m bgl (BH13_03) were recorded on 19th March 2007.

A layer of viscous clear to off-yellow free phase product was identified between 0.934 m bgl and 1.05m bgl (a thickness of 11.6cm) in BH13_03 on the 19th of March. However, a second round of groundwater monitoring was undertaken in Zone 13 on the 1st June 2007, which did not identify free phase hydrocarbons within any well in Zone 13.

2.5.16 Zone 14– Solvent and MEK Storage

2.5.16: Summary of ground conditions encountered

Strata	Description	Strata Depths
Made Ground	The Made Ground comprised concrete (BH14_01), chippings (WS14_01) or gravelly sandy clay matrix (WS14_02) overlying grey SAND and GRAVEL (BH14_01 and WS14_01) or clay containing organic matter and concrete cobbles. A sandstone obstruction was encountered in WS14_01 at 0.3m bgl and a mudstone obstruction was encountered at 3.0m bgl.	Made Ground was encountered to 1.0m bgl in BH14_01 and was proven to a depth of 3.0m bgl in WS14_02 where the window sample was terminated.
Alluvium	Recovered as grey brown sandy CLAY with organic matter and frequent gravels below 4.0m bgl.	Encountered beneath the Made Ground and proven to a depth of 7.4m bgl in BH13_01and BH13_02.
m bgl – metres below ground level		

Field observations of grey black staining, hydrocarbon odour and an oily sheen was noted to be present in the Made Ground of BH14_01. A faint hydrocarbon odour was detected within the Alluvium to approximately 6.0m bgl. Additionally, a faint hydrocarbon odour was present within the Made Ground in WS14_01.

Groundwater was encountered in the Alluvium deposits of BH14_01 at 3.0m bgl. A rest groundwater level of 1.32m bgl was recorded on 3rd May 2007. Free phase hydrocarbons were not detected.

2.5.17 Zone 15– Lacquer Storage

2.5.17: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised limestone hardcore coated in white lacquer (BH15_01), crushed concrete and flint gravels (WS15_01). The gravels were generally further underlain by grey gravelly CLAY containing varying quantities of brick and concrete fragments. The gravelly clay was present from ground level in WS15_02. A concrete obstruction was encountered in WS15_01 at 0.6m bgl.	Made Ground was encountered to 0.8m bgl in WS15_02 and was proven to a depth of 3.0m bgl in WS15_01.
Alluvium	Recovered as grey brown sandy CLAY with organic matter and frequent gravels below 4.0m bgl.	Encountered beneath the Made Ground and was proven to a depth of 7.4m bgl in BH15_01.
m bgl – metres below ground level		

Localised spillages of a solid creamy white substance was noted on the gravel dressed ground to the south of the lacquer ASTs (including on the surface in BH15_01). A hydrocarbon odour was noted to be present in the Made Ground of WS15_02; the odour was most evident between 0.5m bgl to 0.8m bgl. A faint solvent like odour was detected in the Made Ground in WS15_01 between 0.5m bgl to 0.6m bgl.

Groundwater was encountered at the top of the Alluvium deposits in BH15_01 at 3.0m bgl. A rest groundwater level of 0.93m bgl was recorded on 3rd May 2007.

2.5.18 Zone 16– Drum Storage Compound

2.5.18: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised either concrete overlying a sand and gravel sub-base (WS16_01), crushed brick (WS16_03) or vegetation and topsoil with occasional brick or concrete fragments (BH16_01 and WS16_02). Made Ground in WS16_01 and WS16_02 was further underlain by grey sandy gravelly CLAY to 0.6m bgl. Possible Made Ground comprising grey green sandy gravelly SILT was present in WS16_01 between 0.6m bgl to 1.4m bgl.	Made Ground was encountered between depths of 0.3m bgl (WS16_03) and 1.4m bgl (WS16_01).
Coal Measures	Recovered as weathered mudstone, sandstone and siltstone.	Encountered beneath the Made Ground and proven to a

2.5.18: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
		maximum depth of 14.0m bgl in BH16_01.
m bgl – metres below ground level		

Localised hydrocarbon staining was noted to be present on the concrete and open ground immediately adjacent to the bunded compound. Window sample and borehole locations targeted these areas.

Field observations of a solvent odour and black staining were observed to be present in the shallow Made Ground in BH16_01. Dark grey staining and a hydrocarbon odour were noted to be present in WS16_02 below 0.2m bgl, a fainter hydrocarbon odour was also noted WS16_02 in the weathered mudstone (Coal Measures) to 1.2m bgl where the window sample was terminated.

A solvent odour and black staining within the siltstone and sandstone fractures (Coal Measures) were observed to be present in WS16_03 to 1.0m bgl.

Groundwater was only encountered in the mudstone (Coal measures) in BH16_01 at 11.2m bgl. A rest groundwater level of 3.65m bgl was recorded on 19th March 2007.

2.5.19 Zone 17– Disused Cooling Tower to East of Roll Shop

2.5.19: Summary of ground conditions encountered		
Strata	**Description**	**Strata Depths**
Made Ground	The Made Ground comprised either concrete overlying sand and gravel sub-base (WS17_01 and WS17_02) or chippings (HP17_01) overlying brown gravelly CLAY with occasional brick and slag fragments (the gravelly clay was present from ground level in BH17_01).	Made Ground was encountered to a maximum depth of 2.0m bgl in BH17_01 and WS17_02.
Alluvium	Recovered as brown silty CLAY or brown sandy gravelly CLAY with organic odours.	Encountered beneath the Made Ground to 3.0m bgl in BH17_01 and WS17_02.
Coal Measures	Recovered as medium grained grey SANDSTONE.	Encountered beneath the Alluvium in BH17_01 and proven to a depth of 3.6m bgl.
m bgl – metres below ground level		

Field observations of black staining and a hydrocarbon odour were noted to be present in the Made Ground in WS17_01 and HP17_01 between 0.2m bgl and 0.35m bgl. Occasional slag fragments were present in the Made Ground in HP17_01 between 0.35m bgl and 0.7m bgl.

Groundwater was only encountered in the Alluvium in BH17_01 at 2.0m bgl; however, a perched water ingress occurred in WS17_02 from 2.0m bgl. A rest groundwater level of 1.16m bgl was recorded on 21st March 2007.

2.5.20 Zone 18– Coil Preparation Line

2.5.20: Summary of ground conditions encountered

Strata	Description	Strata Depths
Made Ground	The Made Ground comprised concrete to 0.3m bgl overlying brown to brown green gravelly CLAY with occasional crushed brick.	Made Ground was encountered to 1.0m bgl (BH18_02) and 1.5m bgl (BH18_01).
Alluvium	Recovered as soft brown CLAY with occasional gravels of mudstone and sandstone.	Encountered beneath the Made Ground in BH18_01 to a depth of 2.0m bgl.
Boulder Clay	Recovered as soft brown gravelly CLAY.	Encountered beneath the Made Ground in BH18_02 to a depth of 7.0m bgl and beneath the Alluvium in BH18_01 to a depth of 5.5m bgl.
Coal Measures	Recovered as grey fine grained fragments of MUDSTONE.	Encountered beneath the Boulder Clay and proven to a maximum depth of 10.0m bgl in BH18_02.
m bgl – metres below ground level		

No visual or olfactory evidence of contamination was noted during the site investigation.

Groundwater was encountered in the mudstone (Coal Measures) at 6.0m bgl (BH18_01) and 9.0m bgl (BH18_02). Rest groundwater levels of 3.11m bgl (BH18_01) and 3.83m bgl (BH18_02) were recorded on 19th March 2007.

2.6 SURRENDER DATA ON POLLUTANT CONCENTRATIONS

The results of the chemical analysis of soil and groundwater, and the results of the vapour and land gas monitoring for each Zone are discussed below are presented in full in Tables B2, B4 and B5 in Appendix B. Generally, only determinands exceeding the laboratory reporting limits are discussed. Laboratory certificates are presented in Appendix D. For the potential contaminant sources and polluting substances in each Zone, please refer to Table 2.3 in Section 2.3.

2.6.1 Zone 1 – Ingot Plant Dross Shelter

Soil Analysis Results

Concentrations of metals in soils were detected in BH01_01 including arsenic (maximum concentration of 14mg/kg at 0.5-1.0m bgl), barium (maximum concentration of 98mg/kg at 2.5-3.0m bgl), beryllium (maximum concentration of 1.2mg/kg at 2.5-3.0m bgl), boron (0.8mg/kg at 2.5-3.0m bgl), cadmium (0.8mg/kg at 2.5-3.0m bgl), chromium (maximum concentration of 18mg/kg at 0.5-1.0m bgl), copper (maximum concentration of 50mg/kg at 2.5-3.0m bgl), lead (maximum concentration of 53mg/kg at 2.5-3.0m bgl), nickel (maximum concentration of 69mg/kg at 2.5-3.0m bgl), vanadium (maximum concentration of 650mg/kg at 0.5-1.0m bgl) and zinc (maximum concentration of 190mg/kg at 2.5-3.0m bgl).

A maximum sulphate concentration of 650mg/kg and exchangeable ammonium concentration of 150mg/kg were detected in BH01_01 between 0.5-1.0m bgl. pH levels were detected ranging between 7.6 (2.5-3.0m bgl) to 8.4 (0.5-1.0m bgl) in BH01_01.

Extractable Petroleum Hydrocarbons (EPH) was detected in BH01_01 at a maximum concentration of 97mg/kg between 2.5-3.0m bgl.

A concentration of phenanthrene (0.32mg/kg) was detected in BH01_01 between 1.5-2.0m bgl. No other concentrations of polyaromatic hydrocarbon (PAHs) were detected above the laboratory reporting limit in BH01_01.

No volatile organic compounds (VOCs) or semi volatile organic compounds (SVOCs) were detected in soil samples collected from BH01_01.

Groundwater Analysis Results

Groundwater recovered from BH01_01 was neutral (pH 7.8) and contained concentrations of dissolved metals, including boron (0.12mg/l), chromium (0.005mg/l), nickel (0.02mg/l) and selenium (0.007mg/l). Ammoniacal Nitrogen (as N) was detected in groundwater at 1.1mg/l). In addition, a low level concentration of EPH (0.01mg/l) was detected in BH01_01.

PAHs were not detected in the groundwater sample recovered from BH01_01.

Gas Monitoring Results

A slightly elevated concentration of methane peaking at 4.5% by volume before stabilising at 0.8% by volume was detected in BH01_01. Carbon dioxide measured 1.2% by volume while the oxygen concentration was 16.0% by volume. A gas flow of 0.5 l/hr was recorded.

A PID reading for volatile vapours from BH01_01 detected a concentration of 1.6ppm.

2.6.2 Zone 2 – Ingot Plant Tank Farm

Soil Analysis Results

Concentrations of metals in soils were detected in Zone 2 including arsenic (maximum concentration of 13mg/kg from BH02_01 at 0.6m bgl), barium (maximum concentration of 120mg/kg from BH02_02 at 2.0m bgl), beryllium (maximum concentration of 1.3mg/kg from BH02_02 at 2.0m bgl), chromium (maximum concentration of 25mg/kg from BH02_02 at 1.0m bgl), copper (maximum concentration of 39mg/kg from BH02_02 at 2.0m bgl), lead (maximum concentration of 37mg/kg from BH02_02 at 2.0m bgl), nickel (maximum concentration of 52mg/kg from BH02_02 at 2.0m bgl), vanadium (maximum concentration of 24mg/kg from BH02_02 at 2.0m bgl),) and zinc (maximum concentration of 110mg/kg from BH02_02 at 2.0m bgl).

A sulphate concentration of 470mg/kg was detected in BH02_03 at 0.6m bgl.

The pH ranged from slightly acidic (6.1 in BH02_03 at 3.5-4.0m bgl) to slightly alkaline (9.7 in BH02_02 at 0.6m bgl).

EPH was detected in Zone 2 at maximum concentration of 390mg/kg in the sample recovered from BH02_03 at 3.5-4.0m bgl.

No PAHs, BTEX, VOCs or SVOCs were detected in any soil samples analysed for these constituents.

Groundwater Analysis Results

Groundwater recovered from Zone 2 was slightly acidic to neutral (ranging between pH 6.5 in BH02_02 and 7.1 in BH02_01), the groundwater contained boron in all thee boreholes (maximum concentration of 0.042mg/l from BH02_01). In addition a concentration of nickel (0.007mg/l) and zinc (0.012) was detected from the sample recovered from BH02_02.

Ammoniacal Nitrogen (as N) was detected in all three groundwater samples at a maximum concentration of 0.17mg/l from BH02_01 and BH02_03.

EPH (C10-C40) was detected in all three groundwater samples and recorded a maximum concentration of 3.1mg/l from BH02_03. In addition, Total Petroleum Hydrocarbon (C5-C35) detected in BH2_03 at 4.51mg/l and were identified as being predominately in the heavy range aliphatic hydrocarbon fractions (C12-C21).

PAHs were detected in the groundwater at BH02_03 including napthalene (0.0022mg/l), acenapthalene (0.0012mg/l), acenapthene (0.0007mg/l), fluorene (0.0033mg/l), phenanthrene (0.0071mg/l), anthracene (0.0058mg/l), fluoranthene (0.0003mg/l), pyrene (0.0003mg/l), benzo(a)anthracene (0.0002mg/l), chrysene (0.0003mg/l), benzo(b)fluoranthene (0.0002mg/l) and benzo(a)pyrene (0.0002mg/l). In addition, a concentration of naphthalene was detected in BH02_02 (0.0001mg/l).

VOCs were detected in the groundwater sample recovered from BH02_01 including 1,1-dichloroethane (0.005mg/l), cis-1,2 dichloroethene (0.024mg/l) and trichloroethene (0.016mg/l). In addition, a concentration of cis-1,2 dichloroethene was detected in BH02_03 (0.008mg/l).

Gas Monitoring Results

Methane was below the detection limit of the instrument in BH02_01 and BH02_03 when monitored. However, a slightly elevated concentration of methane of 0.3% by volume was detected in BH02_02. The carbon dioxide ranged from no detection (BH02_01) to 4.5% by volume (BH02_03), while oxygen concentrations were 6.7%, 18.1% and 7.5% by volume in BH02_01, BH02_02 and BH02_03, respectively. The gas flow ranged from 2.2 l/hr (BH02_02) to -1.5 l/hr (BH02_01) in the three monitoring wells.

PID readings for volatile vapours from the wells at Zone 2 detected concentrations ranging between 0.6ppm and 6.1ppm.

2.6.3 Zone 3 – Scalper

Soil Analysis Results

Concentrations of metals in soils were detected in BH03_02 including arsenic (maximum concentration of 11mg/kg at 3.0m bgl), barium (maximum concentration of 110mg/kg at 3.0m bgl), beryllium (maximum concentration of 1.2mg/kg at 3.0m bgl), boron (0.6mg/kg at 0.5m bgl and 3.0m bgl), cadmium (maximum concentration of 0.7mg/kg at 3.0m bgl), chromium (15mg/kg at 3.0m bgl), copper (maximum concentration of 58mg/kg at 3.0m bgl), lead (maximum concentration of 40mg/kg at 3.0m bgl), nickel (maximum concentration of 53mg/kg at 3.0m bgl), vanadium (14mg/kg at 0.5m bgl and 3.0m bgl) and zinc (maximum concentration of 120mg/kg at 0.5m bgl).

A slightly alkaline pH level (pH11) was detected in BH03_02 at 0.5m bgl.

EPH was detected in BH03_02 at 0.5m bgl at a concentration of 1,200mg/kg. In addition, the Total Petroleum Hydrocarbons (C5-C35) detected in BH3_02 at 3.0m bgl was 280mg/kg. These were identified as being predominately in the heavy range aromatic hydrocarbon fractions (C21-C35).

PAHs were detected in the soils recovered from BH03_02 including napthalene (0.14mg/kg at 3.0m bgl), fluorene (0.16mg/kg at 3.0m bgl), phenanthrene (0.81mg/kg at 3.0m bgl and 0.32mg/kg at 0.5m bgl), pyrene (0.11mg/kg at 0.5m bgl) and chrysene (0.12mg/kg at 0.5m bgl and 0.11mg/kg at 3.0m bgl.

No BTEX compounds were detected in any soil samples analysed.

Groundwater Analysis Results

The pH if groundwater recovered from Zone 3 ranged from pH 6.9 in BH03_02 to 7.8 in BH02_03. The groundwater in both BH03_02 and BH03_03 contained elevated concentrations of boron (maximum concentration of 0.14mg/l from BH03_03) and zinc (maximum concentration of 0.14mg/l from BH03_03). In addition a concentration of barium (0.046mg/l) was detected from the sample recovered from BH03_03.

Ammoniacal Nitrogen (as N) was detected in groundwater recovered from BH03_03 at a concentration of 2.1mg/l.

A concentration of EPH (C10-C40) was detected in the groundwater recovered from BH03_03 (0.07mg/l). No TPH concentrations were detected in the groundwater sample recovered from BH03_02.

A concentration of phenanthrene (0.0001mg/l) was detected in groundwater recovered from BH03_03. All other PAH concentrations were below laboratory detection limits.

No VOCs were detected in any groundwater samples recovered from Zone 3.

Gas Monitoring Results

A slightly elevated concentration of methane of 0.1% by volume was detected in BH03_03. Carbon dioxide was below the instrument detection limit while the oxygen concentration was 19.7% by volume. A gas flow of 0.4 l/hr was recorded.

PID readings for volatile vapours from the wells at Zone 3 detected concentrations of 1.3ppm (BH03_03) and 1.9ppm (BH02_02).

2.6.4 Zone 4 – Engineering Workshop

Soil Analysis Results

Metals were detected in all seven soil samples recovered from Zone 4. Soil recovered from 2.5m bgl in BH04_01 contained the maximum Zone concentrations of each metal, including arsenic (73 mg/kg), barium (320 mg/kg), beryllium (1.0 mg/kg), boron (0.9 mg/kg), cadmium (2.6 mg/kg), chromium (70 mg/kg), copper (390 mg/kg), lead (630 mg/kg), mercury (1.0 mg/kg), nickel (140 mg/kg), vanadium (72 mg/kg) and zinc (770 mg/kg).

Two made ground samples were screened for and found to be absent of asbestos. None of the soil samples from the Zone contained sulphate and the pH ranged between 5.3 (0.2-0.5m in WS04_02) and 11.2 (2.5m BH04_01).

EPH (C_{10}-C_{40}) was detected in five soil samples and reached a maximum concentration of 930 mg/kg at 2.5m bgl in BH04_01.

The soil sample taken from 2.5m bgl in BH04_01 was the only sample found to contain PAHs, and included phenanthrene (0.39 mg/kg), fluoranthene (0.52 mg/kg), pyrene (0.38 mg/kg), benzo(a)anthracene (0.26 mg/kg), chrysene (0.34 mg/kg), benzo(b)fluoranthene (0.26 mg/kg), benzo(k)fluoranthene (0.16 mg/kg), benzo(a)pyrene (0.19 mg/kg) and benzo(g,h,i)perylene.

The soil sample taken from 6m bgl in BH04_01 was the only sample analysed for the presence of petroleum hydrocarbons and was found to contain aliphatic C_{16}-C_{21} (7.5 mg/kg), aliphatic C_{21}-C_{35} (22 mg/kg) and aromatic C_{21}-C_{35} (11 mg/kg).

No SVOCs, VOCs or BTEX compounds were detected in soil samples from Zone 4.

Groundwater Analysis Results

No groundwater data was collected from Zone 4.

Gas Monitoring Results

No gas monitoring data was collected from Zone 4.

2.6.5 Zone 5 – Hot Mill Cellars

Soil Analysis Results

Metals were detected in seven soil samples recovered from Zone 5, including arsenic (maximum concentration of 11 mg/kg at 0.5m in BH05_01 and 1.0m in BH05_02), barium (maximum concentration of 74 mg/kg at 0.5m in BH05_01), beryllium (maximum concentration of 0.8 mg/kg at 0.5, 1.0 and 4.0m in BH05_01), boron (maximum concentration of 0.6 mg/kg at 0.5m in BH05_01), cadmium (maximum concentration of 0.8 mg/kg at 0.5m in BH05_01), chromium (maximum concentration of 50 mg/kg at 4.0m in BH05_01), copper (maximum concentration of 63 mg/kg at 0.5m in BH05_01), lead (maximum concentration of 38 mg/kg at 0.5m in BH05_01), nickel (maximum concentration of 25 mg/kg at 0.5m and 1.0m in BH05_01), vanadium (maximum concentration of 17 mg/kg at 0.5m in BH05_01) and zinc (maximum concentration of 200 mg/kg at 0.5m in BH05_01).

The pH of the soil in the Zone ranged between 7.9 (3.2m in BH05_03) and 8.8 (0.5m in BH05_01).

EPH (C_{10}-C_{40}) was detected in six soil samples and reached a maximum concentration of 6,100 mg/kg at 0.5mm bgl in BH05_03.

The soil sample taken from 1.0m bgl in BH05_01 contained the highest concentration of PAHs in the Zone, including naphthalene (0.39 mg/kg), acenaphthene (0.7 mg/kg), fluorene (0.47 mg/kg), phenanthrene (2.9 mg/kg), anthracene (0.96 mg/kg), fluoranthene (2.5 mg/kg), pyrene (1.9 mg/kg), benzo(a)anthracene (0.79 mg/kg), chrysene (0.78 mg/kg), benzo(b)fluoranthene (0.78 mg/kg), benzo(k)fluoranthene (0.29 mg/kg), benzo(a)pyrene (0.55 mg/kg), indeno(1,2,3-cd)pyrene (0.24 mg/kg) and benzo(g,h,i)perylene (0.12 mg/kg). Acenaphthylene was only detected in the soil sample recovered from 1.5 m bgl in BH05_03 at a concentration of 0.12 mg/kg.

The soil sample taken from 1.5m bgl in BH05_03 contained both aliphatic hydrocarbons (0.02 mg/kg of C_6-C_8, 1.2 mg/kg of C_8-C_{10}, 2.7 mg/kg of C_{10}-C_{12}, 3,400 mg/kg of C_{12}-C_{16}, 6,600mg/kg of C_{16}-C_{21} and 1,700 mg/kg of C_{21}-C_{35}) and aromatic hydrocarbons (1.8 mg/kg of C_8-C_{10}, 4 mg/kg of C_{10}-C_{12}, 170 mg/kg of C_{12}-C_{16}, 530 mg/kg of C_{16}-C_{21} and 260 mg/kg of C_{21}-C_{35}) compounds.

1,2,4-trimethylbenzene at a concentration 0.043 mg/kg was detected in the soil sample from 1.5m bgl in BH05_03. No other BTEX or any VOCs were detected within soil samples from Zone 5.

Groundwater Analysis Results

Boron and Zinc were detected in groundwater samples collected from the Zone at maximum concentration of 0.079 mg/l and 0.011 mg/l, respectively, from BH05_03. The pH of the groundwater samples ranged between 6.7 (BH05_02) and 7.4 (BH05_01).

EPH (C_{10}-C_{40}) was detected in BH05_01 and BH05_03 with concentrations of 0.05 mg/l and 5.0 mg/l respectively.

The groundwater sample taken from BH05_02 was the only sample analysed for the presence of petroleum hydrocarbons and was found to contain 0.01 mg/l of both aliphatic C_{12}-C_{16} and aliphatic C_{16}-C_{21} hydrocarbons.

1,1-dichloroethane at a concentration of 0.002 mg/l was detected in the groundwater sample from BH05_01. No other VOCs or any PAH or BTEX compounds were detected in the groundwater from the Zone.

Gas Monitoring Results

Methane was below the detection limit of the instrument in all three monitoring boreholes. Carbon Dioxide ranged from 0.3% by volume (BH05_01) to 1.0% by volume (BH05_03), while oxygen concentrations ranged from 19.5% by volume (BH05_03) to 20.9% by volume BH05_01). The gas flow ranged from 0.2 l/hr (BH05_03) to -0.5 l/hr (BH05_02) in the three monitoring wells.

PID readings for volatile vapours from the wells at Zone 5 ranged from below detection limit and 1.4ppm (BH05_03).

2.6.6 Zone 6 – Hot Mill Waste Oil Tank Farm and Coolant Filter House

Soil Analysis Results

Metals were analysed for in two soil samples recovered from Zone 6. These samples were recovered from 1.0m bgl in BH06_02 and 2.0m bgl in BH06_03. The metals included arsenic (maximum concentration of 7 mg/kg in BH06_02), barium (maximum concentration of 79 mg/kg in BH06_03), beryllium (maximum concentration of 1.1 mg/kg in BH06_02), chromium (maximum concentration of 29 mg/kg in BH06_03), copper (maximum concentration of 23 mg/kg in both samples), lead (maximum concentration of 21 mg/kg in BH06_03), nickel (maximum concentration of 33 mg/kg at in BH06_02), vanadium (maximum concentration of 17 mg/kg in BH06_02) and zinc (maximum concentration of 72 mg/kg in BH06_03).

Soil recovered from 0.5 m bgl in BH06_03 was screened for, and found to be absent of asbestos. No sulphate above laboratory detection was detected in any soil samples from the Zone and the pH ranged between 7.0 (5.0m in BH06_02) and 7.8 (0.5m in BH06_01).

EPH (C_{10}-C_{40}) was detected in four soil samples and reached a maximum concentration of 930 mg/kg at 0.5 m bgl in BH06_01.

The soil sample taken from 4m bgl in BH06_03 contained aliphatic C_{16}-C_{21} (8.3 mg/kg), aliphatic C_{21}-C_{35} (16 mg/kg) and aromatic C_{21}-C_{35} (7.9 mg/kg) hydrocarbon.

No PAHs, VOCs, SVOCs or BTEX compounds were detected in any soil samples from Zone 6.

Groundwater Analysis Results

The only metal detected in groundwater from the Zone was boron (0.16 mg/l in BH06_02 and 0.056 mg/l in BH06_03). The pH of these two samples was found to be 7.4 and 7.3, respectively.

The samples were analysed for the presence of PAHs and found to contain 0.0001 mg/l and 0.0002 mg/l of phenanthrene in BH06_02 and BH06_03, respectively.

No petroleum hydrocarbons, VOCs or BTEX compounds were found in any of the groundwater samples from Zone 6.

Gas Monitoring Results

Methane was below the detection limit of the instrument in BH06_02; however a slightly elevated concentration of methane of 0.1% by volume was detected in BH06_03. The carbon dioxide level in BH06_02 was also below the detection limit whereas a carbon dioxide concentration of 0.2% by volume was detected in BH06_03. Oxygen concentrations were measured to be 21.0% by volume in BH06_02 and 20.1% by volume in BH06_03. No gas flow was detected in BH06_02, while a negative flow of -1.0 l/hr was measured in BH06_03.

PID readings for volatile vapours from Zone 6 were below detection limit.

2.6.7 Zone 7 – Hot Mill Sub-Stations

Soil Analysis Results

Two soil samples recovered from the Zone were maintained for pH. SS07_01 had a pH value of 7.9 and WS07_01 had a pH of 7.8 at 0.5m bgl.

EPH (C_{10}-C_{40}) was detected in all three soil samples and reached a maximum concentration of 32,000 mg/kg at in SS07_01. No PCBs or BTEX compounds were detected in any soil from Zone 7.

Groundwater Analysis Results

No groundwater data could be collected from this Zone.

Gas Monitoring Results

No gas monitoring data could be collected from this Zone.

2.6.8 Zone 8 – Compressor Drainage

Soil Analysis Results

Soil recovered from 0.3-0.5 m bgl in HP08_01 was found to contain arsenic (150 mg/l), barium (330 mg/l), beryllium (0.8 mg/l), cadmium (4.5 mg/l), chromium (47 mg/l), copper (820 mg/l), lead (980 mg/l), mercury (0.8 mg/l), nickel (60 mg/l), vanadium (28 mg/l) and zinc (8,500 mg/l).

The pH of the soil samples recovered from 0.05-0.15 m bgl and 0.3-0.5 m bgl in HP08_01 were measured and found to be 7.2 and 7.5, respectively.

EPH (C_{10}-C_{40}) was detected in the two soil samples at concentrations of 16,000 mg/kg at 0.05-0.15 m bgl and 3,400 mg/kg at 0.3-0.5 m bgl.

The soil sample taken from 0.3-0.5 m bgl in HP08_01 was analysed for PAH concentrations and was found to contain acenaphthene (0.14 mg/kg), fluorene (0.11 mg/kg), phenanthrene (1.5 mg/kg), anthracene (0.32 mg/kg), fluoranthene (2.5 mg/kg), pyrene (1.8 mg/kg), benzo(a)anthracene (1.3 mg/kg), chrysene (1.4 mg/kg), benzo(b)fluoranthene (1.4 mg/kg), benzo(k)fluoranthene (0.83 mg/kg), benzo(a)pyrene (0.96 mg/kg), indeno(1,2,3-cd)pyrene (0.84 mg/kg), dibenzo(a,h)anthracene (0.16 mg/kg) and benzo(g,h,i)perylene (0.84 mg/kg).
No compounds within the BTEX suite were detected in soil samples from the Zone.

Groundwater Analysis Results

No groundwater data was collected from this Zone

Gas Monitoring Results

No gas monitoring data was collected from this Zone.

2.6.9 Zone 9 –Stores & IBC Storage Area

Soil Analysis Results

Metals were detected in nine soil samples recovered from Zone 9, including arsenic (maximum concentration of 710 mg/kg at 1.0m in BH09_01), barium (maximum concentration of 570 mg/kg at 0.8-1.0m in BH09_04), beryllium (maximum concentration of 1.2 mg/kg at 0.8-1.2m in BH09_03), boron (maximum concentration of 1.8 mg/kg at 0.8-1.0m in BH09_04), cadmium (maximum concentration of 2.9 mg/kg at 0.5-0.6m in

HP09_01), chromium (maximum concentration of 110 mg/kg at 0.5-0.6m in HP09_01), copper (maximum concentration of 2,900 mg/kg at 1.0m in BH09_01), lead (maximum concentration of 5,800 mg/kg at 0.5-0.6m in HP09_01), mercury (8.1 mg/kg at 1.0m in BH09_01), nickel (maximum concentration of 150 mg/kg at 1.0m in BH09_01), selenium (maximum concentration of 4.2 mg/kg at 0.8-1.2 mg/kg in BH09_03), vanadium (maximum concentration of 70 mg/kg at 0.5-0.6m in HP09_01) and zinc (maximum concentration of 1,200 mg/kg at 2.2m in BH09_01).

Water soluble chloride was detected in soil recovered from 0.6m bgl in BH09_02 (59 mg/kg) and 0.8-1.2m bgl in BH09_03 (24 mg/kg) and organic carbon was detected in soil recovered from 2.0-2.5m bgl in BH09_04 (6.1%). Soil recovered from BH09_02 and BH09_03 were analysed for the presence of exchangeable ammonium, with both results falling below the detection limit of 40 mg/kg.

The soil sample pH ranged between 5.9 (3.5-3.8m in BH09_02) and 10.1 (1.0m in BH09_01).

EPH (C_{10}-C_{40}) was detected in all nine soil samples and reached a maximum concentration of 340,000 mg/kg at in HP09_02 at 0-0.1 m bgl.

The soil sample taken from 0.3-0.4 m bgl in WS09_01 analysed for Total Petroleum Hydrocarbons and was found to contain both aliphatic (0.02 mg/kg of C_6-C_8, 0.02 mg/kg of C_8-C_{10}, 0.13 mg/kg of C_{10}-C_{12}, 25 mg/kg of C_{12}-C_{16}, 68 mg/kg of C_{16}-C_{21} and 83 mg/kg of C_{21}-C_{35}) and aromatic (0.03 mg/kg of C_8-C_{10}, 0.19 mg/kg of C_{10}-C_{12}, 9.7 mg/kg of C_{12}-C_{16}, 30 mg/kg of C_{16}-C_{21} and 46 mg/kg of C_{21}-C_{35}) compounds.

The soil samples were analysed for PAHs and maximum concentrations were found at 0.5-0.6 m bgl in HP09_01 and at 1.0 m bgl in BH09_01. The maximum concentrations of PAHs detected included naphthalene (0.18 mg/kg in HP09_01), phenanthrene (0.61 mg/kg in BH09_01), anthracene (0.14 mg/kg in BH09_01), fluoranthene (1.0 mg/kg in BH09_01), pyrene (0.79 mg/kg in BH09_01), benzo(a)anthracene (0.53 mg/kg in BH09_01), chrysene (0.61 mg/kg in BH09_01), benzo(b)fluoranthene (0.52 mg/kg in BH09_01), benzo(k)fluoranthene (0.35 mg/kg in BH09_01), benzo(a)pyrene (0.45 mg/kg in BH09_01), indeno(1,2,3-cd)pyrene (0.35 mg/kg in HP09_01), dibenzo(a,h)anthracene (0.12 mg/kg in HP09_01) and benzo(g,h,i)perylene (0.52 mg/kg in HP09_01).

VOCs were detected in Zone 9, including 1,1-dichloropropene (0.39 mg/kg at 0.8-1.2m in BH09_03), carbon tetrachloride (0.45 mg/kg at 0.8-1.2m in BH09_03), 1,2-dichloropropane

(0.3 mg/kg at 0.8-1.2m in BH09_03) and trichloroethane (0.034 mg/kg at 2.0-2.5m in BH09_04). No BTEX were detected in any soil sample from the Zone.

Groundwater Analysis Results

Groundwater collected from Zone 11 contained arsenic (maximum concentration of 0.14 mg/l in BH09_03), boron (maximum concentration of 0.12 mg/l in BH09_03), copper (maximum concentration of 0.005 mg/l in BH09_01), nickel (maximum concentration of 0.005 mg/l in BH09_01), selenium (maximum concentration of 0.015 mg/l in BH09_01) and zinc (maximum concentration of 0.017 mg/l in BH09_03). The pH ranged between 5.6 (BH09_02) and 7.2 (BH09_01).

BH09_03 contained ammoniacal nitrogen as N (0.12 mg/l) and NH4 (0.16 mg/l) and the pH ranged between 5.6 (in BH09_02) and 7.2 (in BH09_01).

EPH (C_{10}-C_{40}) was detected in all four groundwater samples and reached a maximum concentration of 0.09 mg/l in BH09_03.

The groundwater samples were analysed for PAHs and BH09_01 and BH09_02 were found to contain naphthalene in concentrations of 0.0001 mg/l and 0.0002 mg/l, respectively. No VOCs were detected in the groundwater samples from the Zone.

Gas Monitoring Results

Methane was below the detection limit of the instrument in BH09_02. Slightly elevated methane concentrations of 0.2% and 1.5% by volume were detected in BH09_01 and BH09_04, respectively. The methane concentration in BH09_03 was initially above the detection limit of the instrument before settling down to a slightly elevated concentration of 0.5% by volume.

The carbon dioxide ranged from 0.2% by volume (BH09_02) to 1.5% by volume (BH09_04), while oxygen concentrations ranged from 21.2% by volume (BH09_02) to a depleted 10.5% by volume (BH09_04). Gas flow rates in the boreholes ranged from -0.7 l/hr (BH09_04) to 1.5 l/hr (BH09_02).

PID readings for volatile vapours from the wells at Zone 9 ranged from below detection limit and 2.2ppm (BH09_01).

2.6.10 Zone 10 – Cold Mill Sub-Station and Transformers

Soil Analysis Results

The pH of soil samples collected from the Zone ranged from 7.9 (SS10_04) and 8.2 (SS10_07).

EPH (C_{10}-C_{40}) were detected in all ten soil samples and reached a maximum concentration of 53,000 mg/l in SS10_06.

PCBs were only detected in SS10_08, including PCB congeners 138 (0.003 mg/kg), 153 (0.003 mg/kg) and 180 (0.002 mg/kg).

No BTEX were detected in any soil sample from Zone 10.

Groundwater Analysis Results

No groundwater data was collected from Zone 10.

Gas Monitoring Results

No gas monitoring data as collected from Zone 10.

2.6.11 Zone 11 – Cold Mill Cellars

Soil Analysis Results

Metals were detected in all seven soil samples recovered from Zone 11, including arsenic (maximum concentration of 12 mg/kg at 3.0m in BH11_02), barium (maximum concentration of 100 mg/kg at 1.0m in BH11_02), beryllium (maximum concentration of 1.2 mg/kg at 4.0-5.0m in BH11_03), boron (maximum concentration of 0.6 mg/kg at 4.5-5.0m in BH11_01), chromium (maximum concentration of 32 mg/kg at 3.0m and 5.0m in BH11_02), copper (maximum concentration of 24 mg/kg at 1.0m in BH11_02), lead (maximum concentration of 34 mg/kg at 4.0-5.0m in BH11_03), mercury (maximum concentration of 0.6 mg/kg at 3.0m in BH11_02), nickel (maximum concentration of 30 mg/kg at 1.0m in BH11_02), vanadium (maximum concentration of 33 mg/kg at 4.0-5.0m in BH11_03) and zinc (maximum concentration of 84 mg/kg at 4.0-5.0m in BH11_03).

A maximum organic carbon concentration of 0.74% was detected in the soil removed between 0.4 and 0.5m from BH11_03 and the pH of the soil samples from the Zone ranged from between 4.9 (4.5-5.0m in BH11_01) and 8.4 (1.5-2.5m in BH11_03).

EPH (C_{10}-C_{40}) was detected in all seven soil samples and reached a maximum concentration of 72 mg/kg between 4.0-5.0m bgl in BH11_03.

No PAHs, BTEX or VOCs were detected in any of the soil samples collected from Zone 11.

Groundwater Analysis Results

Groundwater collected from Zone 11 contained boron (maximum concentration of 0.059 mg/l in BH11_01), nickel (maximum concentration of 0.008 mg/l in BH11_03) and zinc (maximum concentration of 0.021 mg/l in BH11_03) and the pH ranged between 6.4 (in BH11_02) and 6.8 (in BH11_03).

EPH (C_{10}-C_{40}) was detected in groundwater samples from two of the boreholes and reached a maximum of 0.3 mg/l in BH11_02. Groundwater from BH11_01 contained aliphatic (1.4 mg/l of C_{12}-C_{16}, 1.6 mg/l of C_{16}-C_{21} and 0.34 mg/l of C_{21}-C_{35}) and aromatic (0.05 mg/l of C_{12}-C_{16} and 0.1 mg/l of C_{16}-C_{21}) petroleum hydrocarbons.

No PAHs or VOCs were detected in any groundwater samples from Zone 11.

Gas Monitoring Results

Methane was below the detection limit of the instrument in BH11_02 and BH11_03 when monitored. However, a slightly elevated concentration of methane of 0.3% by volume was detected in BH11_01. The carbon dioxide ranged from 0.4% by volume (BH11_01) to 1.9% by volume (BH11_03), while oxygen concentrations were 19.7%, 19.9% and 14.8% by volume in BH11_01, BH11_02 and BH11_03, respectively. No gas flow was detected in BH11_02 and BH11_03, while a flow of 0.2 l/hr was measured in BH11_01.

PID readings for volatile vapours from the wells at Zone 11 ranged between 0.2ppm (BH11_02) and 6.9ppm (BH11_01).

2.6.12 Zone 12 – Cold Mill Tank Farm

Soil Analysis Results

Metals were detected in soil samples recovered from Zone 12, including arsenic (maximum concentration of 22 mg/kg at 4.5m in BH12_01), barium (maximum concentration of 68 mg/kg at 1.3-1.5m in BH12_02), beryllium (maximum concentration of 1.0 mg/kg at 4.5m in BH12_01), boron (maximum concentration of 0.7 mg/kg at 4.5m in BH12_01), cadmium (maximum concentration of 1.0 mg/kg at 3.0m in BH12_02), chromium (maximum concentration of 38 mg/kg at 3.0m in BH12_02), copper (maximum concentration of 45 mg/kg at 1.3-1.5m in BH12_02), lead (maximum concentration of 46 mg/kg at 3.0m in BH12_02), nickel (maximum concentration of 23 mg/kg at 3.0m in BH12_02), vanadium (maximum concentration of 60 mg/kg at 4.5m in BH12_01) and zinc (maximum concentration of 94 mg/kg at 1.3-1.5m in BH12_02).

No sulphate was detected in any of the soil samples from the Zone and the pH ranged between 7.5 (3.0m in BH12_02) and 10.3 (0.5m in WS12_01).

Elevated EPH (C_{10}-C_{40}) concentrations were detected in 9 soil samples from the Zone (maximum concentration of 63,000 mg/kg at 1.0m in BH12_01). Separate EPH fractions were analysed for in two of the surface soil samples. SS12_02 contained the highest concentrations at 21,000 mg/kg of C_{10}-C_{20}, 12,000 mg/kg of C_{20}-C_{30} and 10,000 mg/kg of C_{30}-C_{40} hydrocarbons.

PAHs were detected in three of the soil samples from the Zone, including acenaphthene (maximum concentration of 0.69mg/kg at 2.0m in BH12_01), fluorene (maximum concentration of 1.2 mg/kg at 2.0m in BH12_01), phenanthrene (maximum concentration of 2.2 mg/kg at 2.0m in BH12_01), anthracene (maximum concentration of 0.4 mg/kg at 2.0m in BH12_01), fluoranthene (maximum concentration of 0.21 mg/kg at 0.2m in SS12_03), pyrene (maximum concentration of 0.22 mg/kg at 0.2m in SS12_03), benzo(a)anthracene (maximum concentration of 0.1 mg/kg at 0.2m in SS12_03) and chrysene (maximum concentration of 0.14 mg/kg at 0.2m in SS12_03).

Petroleum Hydrocarbons were detected in two of the soil samples from the Zone. The aliphatic hydrocarbons detected included C_5-C_6 (maximum concentration of 0.4 mg/kg at 0-0.1m in SS12_01), C_6-C_8 (maximum concentration of 0.11 mg/kg at 0-0.1m in SS12_01), C_8-C_{10} (maximum concentration of 0.5 mg/kg at 2.0m in BH12_01), C_{10}-C_{12} (maximum concentration of 6.4 mg/kg at 2.0m in BH12_01), C_{12}-C_{16} (maximum concentration of 8,700

mg/kg at 2.0m in BH12_01), C_{16}-C_{21} (maximum concentration of 8,200 mg/kg at 2.0m in BH12_01) and C_{21}-C_{35} (maximum concentration of 2,600 mg/kg at 0-0.1m SS12_01). The aromatic hydrocarbons detected included C_8-C_{10} (maximum concentration of 0.76 mg/kg at 2.0m in BH12_01), C_{10}-C_{12} (maximum concentration of 9.7 mg/kg at 2.0m in BH12_01), C_{12}-C_{16} (maximum concentration of 1,300 mg/kg at 2.0m in BH12_01), C_{16}-C_{21} (maximum concentration of 2,000 mg/kg at 2.0m in BH12_01) and C_{21}-C_{35} (maximum concentration of 1,300 mg/kg at 0-0.1m SS12_01).

A concentration of 0.01 mg/kg of o-xylene was detected in the soil sample from 2.0m bgl in BH12_01. No other BTEX or any VOCs were detected within soil samples from Zone 12.

Groundwater Analysis Results

Groundwater from BH12_01 was analysed for metal concentrations and was found to contain arsenic (0.076 mg/l), barium (0.073 mg/l), boron (0.16 mg/l) and nickel (0.005 mg/l). The pH values of groundwater collected from BH12_01 and BH12_02 were 7.2 and 6.5, respectively.

BH12_01 was also found to contain o-xylene (0.008 mg/l), 1,2,4-trimethylbenzene (0.029 mg/l), VPH compounds; C_5-C_{10} (0.75 mg/l), C_{10}-C_{12} (9.0 mg/l) and C_5-C_{12} (9.8 mg/l), and EPH compounds C_{10}-C_{20} (110 mg/l), C_{20}-C_{30} (25.0 mg/l) and C_{30}-C_{40} (6.3 mg/l). BH12_02 was found to contain an EPH C_{10}-C_{40} concentration of 7.9 mg/l.

Petroleum Hydrocarbons were detected in the groundwater sample from BH12_02. The aliphatic hydrocarbons detected included C_{12}-C_{16} (0.07 mg/l), C_{16}-C_{21} (0.55 mg/l) and C_{21}-C_{35} (11.0 mg/l). The aromatic hydrocarbons detected included C_{12}-C_{16} (0.02 mg/l), C_{16}-C_{21} (0.11 mg/l) and C_{21}-C_{35} (3.0 mg/l).

A PAH analysis suite was carried out on the groundwater sample from BH12_01, and detected naphthalene (0.0015 mg/l), acenaphthalene (0.0013 mg/l), acenaphthene (0.0033 mg/l), fluorene (0.017 mg/l), phenanthrene (0.025 mg/l), anthracene (0.0098 mg/l), fluoranthene (0.0098 mg/l), pyrene (0.0007 mg/l), benzo(a)anthracene (0.0002 mg/l), chrysene (0.0001 mg/l), benzo(b)fluoranthene (0.0001 mg/l) and benzo(k)fluoranthene (0.0001 mg/l).

An SVOC analysis suite of analysis on the same sample detected 0.03 mg/l of phenol, whilst a VOC analysis suite detected toluene (0.003 mg/l), ethyl benzene (0.004 mg/l), m,p-xylenes (0.015 mg/l) and 1,2,4 trimethylbenzene (0.024 mg/l).

As discussed in Section 2.4.14, a second round of monitoring undertaken on the 1st June 2006 which identified a thin (20mm) layer of free phase hydrocarbons in BH12_01. Free phase kerosene based hydrocarbons have previously been identified in the immediate vicinity of the Cold Mill Tank Farm in 2002, in a site investigation by ExCal Limited ('Alcoa Manufacturing (GB) Ltd, Waunarlwydd Works, Swansea. Site Investigation', September 2002). The free phase hydrocarbons in BH12_01 are considered to relate to this. As the kerosene based rolling oils previously in use in the Cold Mill were changed in the mid 1980's to the current (Permitted) vegetable based oils, the free phase hydrocarbons identified in Zone 12 represent historical contamination, unrelated to Permitted activities.

Gas Monitoring Results

Elevated concentrations of methane of 5.6% and 1.7% by volume were detected in BH12_01 and BH12_02, respectively. The carbon dioxide measured was 12.0% and 0.7% by volume for BH12_01 and BH12_02, respectively, while depleted oxygen concentrations were 7.5% and 12.6% by volume, respectively. Gas flows of 2.0 l/hr in BH12_01 and 0.1 l/hr in BH12_02 were measured.

PID readings for volatile vapours from the wells at Zone 12 were below detection limit, with the exception of a concentration of 4.0ppm in BH12_01.

2.6.13 Zone 13 – Effluent Treatment Plant (ETP) and Localised Oil Leak

Soil Analysis Results

Metals were detected in nineteen soil samples recovered from Zone 13, including arsenic (maximum concentration of 370 mg/kg at 0.3m in WS13_05), barium (maximum concentration of 370 mg/kg at 0.5m in BH13_01), beryllium (maximum concentration of 2.3 mg/kg at 0.3m in WS13_05), boron (maximum concentration of 1.8 mg/kg at 0.5m in BH13_03), cadmium (maximum concentration of 1.0 mg/kg at 0.5m in BH13_01), chromium (maximum concentration of 10,000 mg/kg at 1.8-2.0m in WS13_02), hexavalent chromium (maximum concentration of 430 mg/kg at 1-1.4m in WS13_04), copper (maximum concentration of 1,100 mg/kg at 0.5m in BH13_01), lead (maximum concentration of 260 mg/kg at 0.5m in BH13_01), mercury (maximum concentration of 1.7 mg/kg at 0.3m in WS13_05), nickel (maximum concentration of 47 mg/kg at 0.5m in HP13_01), selenium (maximum concentration of 5.2 mg/kg at 0.3m in WS13_05), vanadium (maximum concentration of 35 mg/kg at 1.2-1.4m in WS13_03) and zinc (maximum concentration of 1,200 mg/kg at 0.3m in WS13_05).

No sulphate was detected in any soil sample from the Zone and the pH ranged between 5.2 (2.0m in BH13_01) and 10.2 (2.2-2.5m in WS13_01).

EPH (C_{10}-C_{40}) was detected in sixteen soil samples and reached a maximum concentration of 11,000 mg/kg at 0.5m bgl in HP13_01.

PAHs were detected in two of the soil samples from the Zone, including naphthalene (maximum concentration 0.16 mg/kg at 0.8-1.0m in WS13_01), acenaphthene (maximum concentration of 0.13mg/kg at 0.5m in BH13_01), fluorene (maximum concentration of 0.21 mg/kg at 0.5m in BH13_01), phenanthrene (maximum concentration of 0.71 mg/kg at 0.5m in BH13_01), fluoranthene (maximum concentration of 0.25 mg/kg at 0.5m in BH13_01), pyrene (maximum concentration of 0.24 mg/kg at 0.5m in BH13_01), benzo(a)anthracene (maximum concentration of 0.12 mg/kg at 0.5m in BH13_01), chrysene (maximum concentration of 0.18 mg/kg at 0.5m in BH13_01) and benzo(b)fluoranthene (maximum concentration of 0.13 mg/kg at 0.5m in BH13_01).

Petroleum Hydrocarbons were detected in four of the soil samples from the Zone. The aliphatic hydrocarbons detected included C_6-C_8 (maximum concentration of 0.03 mg/kg at 0.8-1.0m in WS13_01), C_8-C_{10} (maximum concentration of 0.23 mg/kg at 0.8-1.0m in WS13_01), C_{10}-C_{12} (maximum concentration of 1.7 mg/kg at 0.8-1.0m in WS13_01), C_{12}-C_{16} (maximum concentration of 75 mg/kg at 0.8-1.0m in WS13_01), C_{16}-C_{21} (maximum concentration of 180 mg/kg at 0.8-1.0m in WS13_01) and C_{21}-C_{35} (maximum concentration of 130 mg/kg at 0.5m BH13_03). The aromatic hydrocarbons detected included C_8-C_{10} (maximum concentration of 0.35 mg/kg at 0.8-1.0m in WS13_01), C_{10}-C_{12} (maximum concentration of 2.6 mg/kg at 0.8-1.0m in WS13_01), C_{12}-C_{16} (maximum concentration of 42 mg/kg at 0.8-1.0m in WS13_01), C_{16}-C_{21} (maximum concentration of 58 mg/kg at 0.8-1.0m in WS13_01) and C_{21}-C_{35} (maximum concentration of 30 mg/kg at 0.5m BH13_03).

0.035 mg/kg of 1,2,4-trimethylbenzene was detected in the soil sample from 0.8-1.0m bgl in WS13_01. No other BTEX or any SVOCs or VOCs were detected within soil samples from Zone 13.

Groundwater Analysis Results

Groundwater collected from Zone 13 contained boron (maximum concentration of 0.037 mg/l in BH13_02), chromium (maximum concentration of 0.007 mg/l in BH13_02), nickel (maximum concentration of 0.009 mg/l in BH13_01 and BH13_02), zinc (maximum

concentration of 0.007 mg/l in BH13_01) and sulphate (maximum concentration of 170 mg/l in BH13_02) and the pH ranged between 6.6 (in BH13_02) and 7.6 (in BH13_03).

No hexavalent chromium was detected in the groundwater from any of the boreholes in the Zone and EPH (C_{10}-C_{40}) was detected in two groundwater samples with a maximum concentration of 0.66 mg/kg in BH13_02.

No VOCs or PAHs were detected in any groundwater from the Zone.

A thin layer of free phase hydrocarbons (11.6cm thick) was identified in BH13_03 on the 19th of March. However, a second round of groundwater monitoring (1st June 2007) did not identify free phase hydrocarbons within any well in Zone 13.

Groundwater from BH13_03 was sampled in March and analysed for the presence of petroleum hydrocarbons. It was found to contain both aliphatic (0.07 mg/l of C_{12}-C_{16}, 0.55 mg/l of C_{16}-C_{21} and 11.0 mg/l of C_{21}-C_{35}) and aliphatic (0.02 mg/l of C_{12}-C_{16}, 0.11 mg/l of C_{16}-C_{21} and 3.0 mg/l of C_{21}-C_{35}) compounds. The laboratory reported that the sample chromatogram of the free phase oil in BH13_03 exhibited a trace consistent with lubrication oil.

Following the second round of monitoring, an additional groundwater sample was analysed for Speciated TPH. This indicated that that the dissolved phase concentrations of hydrocarbons had increased, from a total concentration (C5-C35) of 14.8mg/l to 35.70mg/l.

Gas Monitoring Results

The rest water level in BH13_01 and BH13_02 was too high to enable representative gas monitoring data to be obtained.

A slightly elevated methane concentration of 2.2% by volume was detected in BH13_03. The carbon monoxide was below the instrument detection limit, while a depleted oxygen concentration was measured at 11.6% by volume. A slight gas flow of 0.1 l/hr was measured in BH13_03.

PID readings for volatile vapours from the wells at Zone 13 were below detection limit, with the exception of a concentration of 0.1ppm in BH13_03.

2.6.14 Zone 14– Solvent and MEK Storage

Soil Analysis Results

Metals were detected in two soil samples recovered from Zone 14, 1.0 and 3.0m bgl in BH14_01. These metals included arsenic (maximum concentration of 43 mg/kg in both samples), barium (maximum concentration of 92 mg/kg at 3.0m bgl), beryllium (maximum concentration of 1.0 mg/kg at 3.0m bgl), boron (maximum concentration of 0.6 mg/kg at 1.0m bgl), cadmium (maximum concentration of 0.6 mg/kg at 1.0 m bgl), chromium (maximum concentration of 30 mg/kg at 3.0m bgl), copper (maximum concentration of 110 mg/kg at 1.0m bgl), lead (maximum concentration of 68 mg/kg at 3.0m bgl), mercury (maximum concentration of 1.0 mg/kg at 1.0m bgl), nickel (maximum concentration of 25 mg/kg at 3.0m bgl), vanadium (maximum concentration of 25 mg/kg in both samples) and zinc (maximum concentration of 190 mg/kg at 1.0m bgl).

BH14_01 contained sulphate concentrations of 440 mg/kg at 3.0m bgl. The pH of the soil in the Zone ranged between 5.8 (BH14_01 at 6.0m bgl) and 7.6 (WS14_01 at 0-0.2m bgl).

EPH (C_{10}-C_{40}) were detected in four soil samples and reached a maximum concentration of 150 mg/kg at 0-0.2m bgl in WS14_01.

The soil recovered from 1.0m bgl in BH14_01 was analysed for PAHs and was found to contain phenanthrene (0.2 mg/kg), fluoranthene (0.23 mg/kg) and pyrene (0.13 mg/kg).

The soil recovered from 3.0m bgl in BH14_01 was analysed for SVOCs and was found to contain naphthalene and 4-chloroaniline in concentrations of 4.3 mg/kg and 0.71 mg/kg, respectively. No VOCs were detected in the soil samples from the Zone.

Groundwater Analysis Results

A groundwater sample was collected from BH14_01 and found to contain boron (0.029 mg/l), chromium (0.006 mg/l), nickel (0.013 mg/l), selenium (0.038 mg/l) and zinc (0.007 mg/l). The pH was measured to be 6.6.

EPH (C_{10}-C_{40}) were detected in the groundwater sample at a concentration of 0.02 mg/l.

No PAHs, SVOCs or VOCs were detected in the groundwater from the Zone.

Gas Monitoring Results

Methane was below the instrument detection limit in BH14_01. Carbon dioxide was measured at 0.3% by volume, while the oxygen concentration was measured to be 20.1% by volume. A negative flow of -3.1 l/hr was detected in the monitoring well.

PID readings for volatile vapours at Zone 14 were recorded below detection limit.

2.6.15 Zone 15– Lacquer Storage

Soil Analysis Results

A soil sample recovered from 0.5m bgl in BH15_01 was analysed for metals and found to contain arsenic (72 mg/kg), barium (120 mg/kg), beryllium (0.8 mg/kg), cadmium (0.9 mg/kg), chromium (32 mg/kg), copper (120 mg/kg), lead (140 mg/kg), mercury (1.1 mg/kg), nickel (14 mg/kg), vanadium (27 mg/kg) and zinc (180 mg/kg).

The sample was also found to contain sulphate (1,500 mg/kg). Soil samples collected from BH15_01 at 0.1m bgl and 0.5 m bgl had pH of 6.9 and 7.9, respectively.

A soil sample recovered from 0.1 m bgl in BH15_01 was analysed for petroleum hydrocarbons. The aliphatic hydrocarbons detected included C_5-C_6 (2.4 mg/kg), C_6-C_8 (19 mg/kg), C_8-C_{10} (200 mg/kg), C_{10}-C_{12} (780 mg/kg) and C_{21}-C_{35} (19 mg/kg). The aromatic hydrocarbons detected included C_8-C_{10} (340 mg/kg), C_{10}-C_{12} (1,200 mg/kg), C_{12}-C_{16} (62 mg/kg) and C_{21}-C_{35} (12 mg/kg).

A BTEX suite analysis was carried out on the same sample and the soil was found to contain ethylbenzene (0.42 mg/kg), m,p-xylenes (13 mg/kg), o-xylene (18 mg/kg), 1,3,5-trimethylbenzene (97 mg/kg) and 1,2,4-trimethylbenzene (390 mg/kg).

A SVOC suite analysis was also carried out on this sample and the soil was found to contain naphthalene (4.3 mg/kg), hexachlorobutadiene (5 mg/kg), bis(2-ethylhexyl)phthalate (150 mg/kg) and 4-chloroaniline (6.7 mg/kg).

A VOC suite analysis was carried out on soil samples collected from BH15_01 at 0.1 m bgl and 1.5m bgl. The soil from 1.5m bgl did not contain any VOCs above detection limit, whereas the soil from 0.1m bgl contained ethylbenzene (64 mg/kg), m,p-xylenes (2.8 mg/kg), o-xylene (3.8 mg/kg), isopropylbenzene (92 mg/kg), n-propylbenzene (0.64 mg/kg), 1,3,5

trimethylbenzene (11 mg/kg), 1,2,4 trimethylbenzene (53 mg/kg), sec-butylbenzene (0.45 mg/kg) and 4-isopropyltoluene (0.47 mg/kg).

Tentatively Identified Compounds (TICs) analysis was run for the soil from 0.1m bgl and was found to contain C3 benzene (0.072 mg/kg), allybenzene (0.885 mg/kg), 1,4 dimethyl-2-ethyl benzene (0.5 mg/kg), 2-propyltoluene (0.162 mg/kg), 3-ethyl-o-xylene (0.519 mg/kg), m-cymene (0.477 mg/kg), p-cymene (0.103 mg/kg) and 2,5 dimethyl styrene (0.245 mg/kg).

Groundwater Analysis Results

Groundwater from BH15_01 was found to contain boron (0.04 mg/l), chromium (0.011 mg/l), nickel (0.007 mg/l), selenium (0.021 mg/l) and zinc (0.008 mg/l), with a pH of 6.7.

EPH (C_{10}-C_{40}) were detected in the groundwater sample at a concentration of 0.04 mg/l.

No PAHs, SVOCs or VOCs were detected in the groundwater from Zone 15.

Gas Monitoring Results

Slightly elevated methane and carbon monoxide concentrations of 0.4% by volume and 0.3% by volume, respectively, were detected in BH15_01, while the oxygen concentration was measured to be 19.8% by volume. A negative flow of -5.7 l/hr was detected in the monitoring well.

PID readings for volatile vapours from Zone 15 were recorded below detection limit.

2.6.16 Zone 16– Drum Storage Compound

Soil Analysis Results

Metals were detected in soil samples recovered from Zone 16, including arsenic (maximum concentration of 14 mg/kg at 0.5-0.6m in WS16_01), barium (maximum concentration of 210 mg/kg at 1.8-1.9m in WS16_01), beryllium (maximum concentration of 1.4 mg/kg at 1.8-1.9m in WS16_01), boron (maximum concentration of 1.2 mg/kg at 0.4-0.6m in WS16_02), chromium (maximum concentration of 27 mg/kg at 1.8-1.9m in WS16_02), copper (maximum concentration of 58 mg/kg at 1.8-1.9m in WS16_01), lead (maximum concentration of 24 mg/kg at 0.5-0.6m in WS16_01), nickel (maximum concentration of 45 mg/kg at 1.8-1.9m in WS16_01), vanadium (maximum concentration of 21 mg/kg at 0.5-0.6m

and 1.8-1.9m in WS16_01) and zinc (maximum concentration of 99 mg/kg at 1.8-1.9m in WS16_01).

pH of the soils in the Zone ranged between 7.2 (0.7-0.8m in WS16_02) and 7.9 (0.5-0.6m in WS16_01).

EPH (C_{10}-C_{40}) were detected in six soil samples and reached a maximum concentration of 5,200 mg/kg at 0.5 m bgl in BH16_01.

Petroleum hydrocarbons were analysed for in soils recovered from 0.5m bgl in BH16_01 and 0.4-0.6m bgl in WS16_02. The aliphatic hydrocarbons detected included C_6-C_8 (maximum concentration of 1.2 mg/kg in WS16_02), C_8-C_{10} (maximum concentration of 58 mg/kg in WS16_02), C_{10}-C_{12} (maximum concentration of 180 mg/kg in WS16_02), C_{12}-C_{16} (maximum concentration of 220 mg/kg in WS16_02), C_{16}-C_{21} (maximum concentration of 300 mg/kg in WS16_02) and C_{21}-C_{35} (maximum concentration of 3,100 mg/kg in BH16_01). The aromatic hydrocarbons detected included C_8-C_{10} (maximum concentration of 88 mg/kg in WS16_02), C_{10}-C_{12} (maximum concentration of 270 mg/kg in WS16_02), C_{12}-C_{16} (maximum concentration of 16 mg/kg in WS16_02), C_{16}-C_{21} (maximum concentration of 31 mg/kg in WS16_02) and C_{21}-C_{35} (maximum concentration of 650 mg/kg in BH16_01).

A BTEX suite analysis was carried out on the soil samples and detected MTBE (0.023 mg/kg at 0.4-0.6m bgl in WS16_02), ethylbenzene (0.46 mg/kg at 0.4-0.6m in WS16_02), m,p-xylenes (0.015 mg/kg at 0.5m in BH16_01) and o-xylene (0.015 mg/kg at 0.5m in BH16_01).

VOCs were found in the soil sample recovered from 0.5-0.6 m bgl in WS16_02 including cis-1,2 dichloroethene (0.25mg/kg) and trichloroethene (0.31 mg/kg). No PAHs were found in soil samples from the Zone.

Groundwater Analysis Results

Groundwater sampled from BH16_01 was measured to have a pH of 7.3 and an EPH (C_{10}-C_{40}) concentration of 0.04 mg/l.

No PAHs or VOCs were found in the groundwater from the Zone.

Gas Monitoring Results

Methane was below the instrument detection limit in BH16_01. The carbon dioxide concentration was measured to be 0.6% by volume, while a slightly depleted oxygen concentration of 13.5% by volume was detected. The well had a gas flow rate of 2.0 l/hr.

A PID reading for volatile vapours from BH16_01 recorded a concentration of 1.4ppm.

2.5.21 2.6.17 Zone 17– Disused Cooling Tower to East of Roll

Soil Analysis Results

Metals were detected in soil samples recovered from Zone 17, including arsenic (maximum concentration of 52 mg/kg at 0.5m in BH17_01), barium (maximum concentration of 170 mg/kg at 0.2-0.35m in HP17_01), beryllium (maximum concentration of 1.1 mg/kg at 0.6m in WS17_02), boron (maximum concentration of 3.9 mg/kg at 0.2-0.35 in HP17_01), cadmium (maximum concentration of 2.6 mg/kg at 0.2-0.35 mg/kg in HP17_01), chromium (maximum concentration of 1000 mg/kg at 0.2-0.35m in HP17_01), copper (maximum concentration of 360 mg/kg at 0.2-0.35m in HP17_01), lead (maximum concentration of 270 mg/kg at 2.5m in WS17_02), nickel (maximum concentration of 140 mg/kg at 0.2-0.35m in HP17_01), vanadium (maximum concentration of 48 mg/kg at 0.2-0.35m in HP17_01) and zinc (maximum concentration of 720 mg/kg at 0.2-0.35m in HP17_01).

Soil recovered from 1.0m bgl in BH17_01 contained 2.9% organic carbon and the pH of the soils in the Zone ranged between 6.4 (0.6m in WS17_02) and 8.4 (0.5m in BH17_01).

EPH (C_{10}-C_{40}) were detected in six soil samples and reached a maximum concentration of 310 mg/kg at 1.0 m bgl in BH17_01.

The soil samples were analysed for the presence of PAHs. WS17_01 contained the maximum concentration of naphthalene (0.21 mg/kg at 0.4-0.5m bgl) whilst soil recovered from 0.2-0.35m bgl in HP17_01 contained the maximum concentrations of the Zone for acenaphthene (0.21 mg/kg), phenanthrene (0.55 mg/kg), anthracene (0.13 mg/kg), fluoranthene (0.63 mg/kg), pyrene (0.52 mg/kg), benzo(a)anthracene (0.27 mg/kg), chrysene (0.35 mg/kg), benzo(b)fluoranthene (0.36 mg/kg), benzo(k)fluoranthene (0.28 mg/kg), benzo(a)pyrene (0.37 mg/kg), indeno(1,2,3-cd)pyrene (0.22 mg/kg) and benzo(g,h,i)perylene (0.22 mg/kg).

Petroleum hydrocarbons were analysed for in soil recovered from 0.2-0.35m bgl in HP17_01 and 0.4-0.5m bgl in WS17_01. WS17_01 contained the highest concentrations out of the two. The aliphatic hydrocarbons detected included C_5-C_6 (0.01 mg/kg), C_6-C_8 (0.27 mg/kg), C_8-C_{10} (1.9 mg/kg), C_{10}-C_{12} (4.9 mg/kg), C_{12}-C_{16} (1,300 mg/kg), C_{16}-C_{21} (6,200 mg/kg) and C_{21}-C_{35} (8,400 mg/kg). The aromatic hydrocarbons detected included C_8-C_{10} (2.9 mg/kg), C_{10}-C_{12} (7.3 mg/kg), C_{12}-C_{16} (220 mg/kg), C_{16}-C_{21} (930 mg/kg) and C_{21}-C_{35} (3,000 mg/kg).

A BTEX suite analysis was carried out on five soil samples and detected o-xylene (0.028 mg/kg) and 1,2,4-trimethylbenzene (0.14 mg/kg) in the sample recovered from WS17_01.

VOCs were found in the soil sample recovered from 0.4-0.5m bgl in WS17_01 including vinyl chloride (0.028mg/kg), cis-1,2 dichloroethene (0.56 mg/kg),1,3,5 trimethylbenzene (0.13 mg/kg), 1,2,4 trimethylbenzene (0.21 mg/kg) and sec-butylbenzene (0.063 mg/kg). Benzene at a concentration of 0.057 mg/kg of was detected in the soil sample recovered from 1.0m bgl in BH17_01.

Groundwater Analysis Results

Groundwater from BH17_01 was found to contain arsenic (0.009 mg/l) and boron (0.046 mg/l), with a pH of 7.1.

The groundwater sampled from BH17_01 was analysed for the presence of PAHs and was found to contain 0.0001 mg/l of phenanthrene.

No PAHs or VOCs were detected in the groundwater from BH17_01.

Gas Monitoring Results

A highly elevated concentration of methane of 87% by volume was detected in BH17_01. Carbon dioxide concentration is the well was measured to be 0.8% by volume, while the oxygen concentration was a depleted 11.5% by volume. No gas flow was detected in BH17_01.

A PID reading for volatile vapours from BH17_01 recorded a concentration of 2.5ppm.

2.6.18 Zone 18– Coil Preparation Line

Soil Analysis Results

Metals were detected in soil samples recovered from Zone 18, including arsenic (maximum concentration of 18 mg/kg at 1.2-1.5m in BH18_01), barium (maximum concentration of 140 mg/kg at 2.0m in BH18_01), beryllium (maximum concentration of 1.2 mg/kg at 2.0m in BH18_01), boron (maximum concentration of 0.5 mg/kg at 1.2-1.5 in BH18_01), chromium (maximum concentration of 37 mg/kg at 3.0m in BH18_02), copper (maximum concentration of 120 mg/kg at 5.0m in BH18_02), lead (maximum concentration of 44 mg/kg at 4.5m in BH18_01), nickel (maximum concentration of 31 mg/kg at 2.0m in BH18_01), vanadium (maximum concentration of 22 mg/kg at 2.0m in BH18_01) and zinc (maximum concentration of 98 mg/kg at 1.2-1.5m in BH18_01).

Soil from the site contained sulphate (maximum concentration of 2,200 mg/kg at 1.2-1.5m in BH18_01) and organic carbon (0.93% at 2.0m in BH18_01). There was no hexavalent chromium detected in any of the soil samples and the pH ranged between 5.5 (at 4.5 m bgl in BH18_01) and 8.1 (at 1.2-1.5 m bgl in BH18_01).

EPH (C_{10}-C_{40}) were detected in four soil samples and reached a maximum concentration of 110 mg/kg at 1.2-1.5m bgl in BH18_01.

No PAHs or VOCs were detected in any soil sampled from Zone 18.

Groundwater Analysis Results

Groundwater samples from Zone 18 were found to contain metals including boron (maximum concentration of 0.051 mg/l in BH18_01), nickel (0.008 mg/l in BH18_02) and zinc (0.009 mg/l in BH18_02). The pH of the groundwater from BH18_01 and BH18_02 were 6.3 and 6.2, respectively.

The EPH (C_{10}-C_{40}) concentrations in the groundwater sampled from BH18_01 and BH18_02 were 0.08 mg/l and 0.04 mg/l, respectively.

No PAHs or VOCs were detected in any groundwater sampled from Zone 18.

Gas Monitoring Results

The methane concentration in BH18_01 was greater than the maximum calibration range and may suggest an unknown gas is present or equipment failure of the instrument. Carbon

Dioxide and oxygen concentrations were measured to be an elevated 7.3% by volume and a depleted 10.9% by volume, respectively. A negative gas flow of -0.1 l/hr was present in BH18_01.

Methane in BH18_02 was below the detection limit of the instrument, while the carbon dioxide and oxygen concentrations were measured to be 1.6% by volume and 16.9% by volume, respectively. No gas flow was detected in BH18_02.

PID readings for volatile vapours from Zone 18 recorded concentrations of 5.2ppm (BH18_01) and 1.6ppm (BH18_02).

2.7 SURRENDER DATA AND REFERENCE DATA COMPARISON

The data gathered during this Site Surrender Investigation has been compared to Reference Data gathered as part of the SCR (collected in 2001 and 2003), where available. In Zones where data was not collected during the SCR, the results have been compared against 'Baseline Data' generated for the site using statistical analysis. The treatment of the Reference Data and generation of Baseline Data is described below:

- **Reference Data:** In the first instance, data collected from the Site Condition Reports; 'Application for a Permit to Operate a Part A1 Installation under Pollution Prevention and Control Regulations 2000' (produced by ENVIRON in November 2001) and the further supplement report entitled 'Addendum to the ENVIRON Site Condition Report' (produced by Natural Solutions Ltd in April 2003), has been used to provide Reference Data on the condition of the site prior to the PPC Permit commencing. As the SCR investigations were not 'Zoned', the location of the SCR boreholes together with the analytical suite have been compared to the location of current PPC source Zones, to determine if they are a suitable comparison for the current Zones. For each source Zone, the minimum, maximum, measured mean and the 95% confidence limits of the measured mean have been calculated from the available SCR Reference Data. The upper 95% confidence limits of the Reference Data generally indicated a relatively high degree of uncertainty in mean contaminant concentrations. To provide a more appropriate screening value, the maximum contaminant concentrations identified in this investigation (2007 surrender data) have been screened against the maximum contaminant concentrations identified in the 2001/2003 Reference Data. Exceedances

of the Reference Data have then been considered to determine if they represent an increase in pollution as a result of Permitted activities.

- **Baseline Data**: Several Zones of the site have been identified where there is no suitable 2001/2003 Reference Data to compare surrender data against. In this case, 'Baseline Data' has been established for each determinand by calculating the minimum, maximum, measured mean and the 95% confidence limits from the PPC investigation soil and groundwater surrender data gathered across the whole installation. The maximum concentration of each contaminant from each Zone has been screened against the 95% confidence limit of the measured mean for the installation, as it is considered that the number of samples was sufficient to provide a representative mean contaminant concentration. Maximum concentrations which exceed the upper 95th percentile have then been considered further to determine if they are considered to represent an increase in pollution as a result of Permitted activities, for example, whether the contaminants exceeding the Baseline Data have been used in the Zone during the lifetime of the Permit.

Where a combination of 2001/2003 Reference Data and 2007 Baseline Data are available, the Reference Data has been used preferentially.

Exceedances of the soil and groundwater Reference Data or Baseline Data (where appropriate) for each Zone are summarised in the tables in section 2.6. A discussion of the elevated concentrations, together with an identification and justification of the source of the pollution has also been presented.

2.7.1 Zone 1 – Ingot Plant Dross Shelter

Table 2.7.1.1: Comparison of soil analysis from Zone 1

		Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Ammonium	**Reference Data**	6.9	10.85	8.377	n/a	42	**150**	81.33
Nickel		34	51	44	n/a	34	**69**	51.5
Zinc		94	135	109.67	n/a	95	**190**	142.5
Beryllium	**Baseline Data**	0.5	2.3	0.849	0.849	1	**1.2**	1.1
Boron (W/S)		0.5	3.9	0.684	0.684	0.5	**0.8**	0.65
Sulphate		0	2200	253.2	414.4	500	**650**	575
Phenanthrene		0.1	2.9	0.274	0.274	0.32	**0.32**	0.32

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.1.2: Comparison of groundwater analysis from Zone 1								
	Comparison Data (mg/l)					**Surrender Data (mg/l)**		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Boron	**Baseline Data**	0.018	0.16	0.068	0.0847	0.12	**0.12**	0.12
Nickel		0.005	0.02	0.007	0.008	0.02	**0.02**	0.02
pH		5.6	7.8	6.865	7.032	7.8	**7.8**	7.8
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean								

The surrender data has identified concentrations of ammonia, nickel and zinc in shallow soils which exceed the Reference Data. Beryllium, boron, sulphate and phenanthrene in soils have also been found to exceed the Baseline Data. Boron, nickel and pH in groundwater exceed the groundwater Baseline Data.

Given the relatively poor condition of the concrete hardstanding underlying the dross shelter, it is considered that the increase of metals and ammonia in soils is likely to have occurred during the operation of the Permit. However, the nickel and boron concentrations in groundwater are not considered significantly elevated above typical background concentrations and are more likely to relate to historical activities than operations carried out during the lifetime of the Permit.

2.7.2 Zone 2 – Ingot Plant Tank Farm

Table 2.7.2.1: Comparison of soil analysis from Zone 2								
	Comparison Data (mg/kg)					**Surrender Data (mg/kg)**		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Reference Date**	6.8	7.76	7.121	n/a	6.1	**9.7**	7.357
Copper		33	37	35	n/a	8.6	**39**	27.15
Nickel		38	49	44.5	n/a	12	**52**	30.5
Zinc		81	101	91.83	n/a	35	**110**	73.75
Barium	**Baseline Data**	10	570	107.5	107.5	23	**120**	64
Beryllium		<0.5	2.3	0.849	0.849	<0.5	**1.3**	0.875
Sulphate		0	2200	253.2	414.4	200	**470**	335
Vanadium		5.2	72	21.71	21.71	10	**24**	17.25
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean [2] - Not detected above laboratory reporting limits								

Table 2.7.2.2: Comparison of groundwater analysis from Zone 2

			Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH		**Reference Data**	6.35	6.35	6.35	n/a	6.5	**7.1**	6.733
TPH			1	1	1	n/a	4.51	**4.51**	4.51
Zinc		**Baseline Data**	0.005	0.021	0.009	0.010	0.005	**0.012**	0.007
PAH	Phenanthrene		<0.0001	0.025	0.0034	0.0059	<0.0001	**0.0071**	0.0024
	Anthracene		<0.0001	0.02	0.0029	0.0049	<0.0001	**0.0058**	0.002
VOC	1,1-Dichloroethane		<0.001	0.005	0.001	0.001	<0.001	**0.005**	0.002
	Cis-1,2 Dichloroethane		<0.001	0.024	0.002	0.004	<0.001	**0.024**	0.011
	Trichloroethene		<0.001	0.016	0.002	0.003	<0.001	**0.016**	0.006

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Copper, nickel, zinc and pH in soils slightly exceed the Reference Data while barium, beryllium, sulphate and vanadium in soils slightly exceed the soil Baseline Data.

TPH and pH in groundwater exceeds groundwater Reference Data for Zone 2, while zinc, phenanthrene, anthracene, dichloroethane and trichloroethene exceed groundwater Baseline Data. However, the analytical results indicate that only groundwater from BH2_03 exceeds the Reference Data for TPH, phenanthrene and anthracene, (consistent with field observations of a hydrocarbon sheen and odour during sampling), while only groundwater from BH2_01 exceeds the Baseline Data for dichloroethane and trichloroethene.

The Permitted activity in Zone 2 is the above ground storage of red diesel. **Therefore, the exceedances of metals, pH and sulphate contamination identified in the soil are not considered to relate to Permitted activities.** Similarly, the metal and chlorinated solvent contamination in groundwater is considered to relate to historical activities rather than the current storage of fuel oil.

Information from the laboratory regarding the dissolved phase hydrocarbon contamination in the groundwater in BH2_03 indicates that the sample chromatogram exhibits a trace primarily consistent with a mixture of degraded diesel and lubrication oil standards. The laboratory also report that the hydrocarbons detected within the soils (3.5-4.0m depth) correlate with heavily biodegraded diesel. **There is therefore, a potential for the hydrocarbon contamination in BH2_03 to have occurred during the life of the Permit.**

2.7.2 Zone 3 – Scalper

Table 2.7.3.1: Comparison of soil analysis from Zone 3									
			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
Barium		Baseline Data	10	570	107.5	107.5	73	**110**	91.5
Beryllium			<0.5	2.3	0.849	0.849	<0.5	**1.2**	0.85
Nickel			4.5	150	29.88	29.88	15	**53**	34
pH			4.9	11.2	7.521	7.521	8	**11**	9.5
PAH	Naphthalene		<0.1	0.39	0.11	0.11	<0.1	**0.14**	0.12
	Flourene		<0.1	1.2	0.127	0.127	<0.1	**0.16**	0.13
	Phenanthrene		<0.1	2.9	0.274	0.274	0.32	**0.81**	0.565
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean									

Table 2.7.3.2: Comparison of groundwater analysis from Zone 3								
		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
Boron	Baseline Data	0.018	0.16	0.068	0.0847	0.11	**0.14**	0.125
Zinc		0.005	0.021	0.009	0.010	0.011	**0.014**	0.0125
Ammoniacal Nitrogen as N		0.09	2.1	0.625	1.299	2.1	**2.1**	2.1
Ammoniacal Nitrogen as NH4		0.11	2.7	0.802	1.669	2.7	**2.7**	2.7
pH		5.6	7.8	6.865	7.032	6.9	**7.8**	7.35
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean								

Barium, beryllium, nickel, pH, naphthalene, fluorene and phenanthrene in soils slightly exceed the Baseline Data in Zone 3. Boron, zinc, ammoniacal nitrogen and pH in groundwater slightly exceed the Baseline Data.

Given that the concrete walls of scalper cellar are in good condition and that hydrocarbon concentrations are not elevated either in soils or groundwater at this location, **it is considered that the metal and PAH contamination relates the presence of naturally occurring shallow coal seams in this Zone, rather than to Permitted activities.**

Similarly, the elevated pH (soils and groundwater) and ammonia (groundwater) are **unlikely to be related to Permitted activities in this Zone** and are considered more likely to be related to historical contamination.

2.7.4 Zone 4 - Engineering Workshop

Table 2.7.4.1: Comparison of soil analysis from Zone 4

		Comparison Data (mg/kg)					Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Barium		**Baseline Data**	10	570	107.5	107.5	54	**320**	99.57
Beryllium			<0.5	2.3	0.849	0.849	0.7	**1**	0.847
Boron (W/S)			<0.5	3.9	0.684	0.684	<0.5	**0.9**	0.586
Cadmium			<0.5	4.5	0.742	0.742	<0.5	**2.6**	0.8
Copper			8.2	2900	167	167	20	**390**	79.43
Lead			10	5800	168.3	168.3	22	**630**	119
Mercury			<0.6	8.1	0.742	0.742	<0.6	**1**	0.657
Nickel			4.5	150	29.88	29.88	14	**140**	40.86
Vanadium			5.2	72	21.71	21.71	14	**72**	25.29
Zinc			16	8500	306.3	306.3	57	**770**	163.9
pH			4.9	11.2	7.521	7.521	5.3	**11.2**	7.467
PAH	Phenanthrene		<0.1	2.9	0.274	0.274	<0.1	**0.39**	0.158
	Fluoranthene		<0.1	2.5	0.23	0.23	<0.1	**0.52**	0.184
	Pyrene		<0.1	1.9	0.2	0.2	<0.1	**0.38**	0.156
	Benzo(a)-anthracene		<0.1	1.3	0.149	0.149	<0.1	**0.26**	0.132
	Chrysene		<0.1	1.4	0.157	0.157	<0.1	**0.34**	0.148
	Benzo(b-flouranthracene		<0.1	1.4	0.155	0.155	<0.1	**0.26**	0.132
	Benzo(k)-fluoranthene		<0.1	0.83	0.127	0.127	<0.1	**0.16**	0.112
	Benzo(a)-pyrene		<0.1	0.96	0.14	0.14	<0.1	**0.19**	0.118

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

The metals barium, beryllium, boron, cadmium, copper, lead, mercury, nickel, vanadium and zinc, and also pH exceed Baseline Data. The PAHs phenanthrene, flouranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)flouranthracene, benzo(k)fluoranthene and benzo(a)pyrene also exceed soil Baseline Data. The majority of these metals (with the exception of beryllium and nickel) and all of the PAHs exceed Baseline Data in one sample only (BH4_02 at 2,5m bgl), associated with black ashy Made Ground. Beryllium and pH exceeded Baseline Data in the majority of soil samples (both of the Made Ground and natural strata).

Given the good condition and the thickness of the concrete hardstanding in Zone 4, it is considered that **these exceedances relate to the presence of ashy fill materials rather than Permitted activities in this Zone**.

2.7.5 Zone 5 –Hot Mill Cellars

Table 2.7.5.1: Comparison of soil analysis from Zone 5

			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH		Baseline Data	4.9	11.2	7.521	7.521	8.1	**8.8**	8.375
PAH	Naphthalene		<0.1	0.39	0.11	0.11	<0.1	**0.39**	0.173
	Acenaphthylene		<0.1	0.12	0.1	0.1	<0.1	**0.12**	0.105
	Acenaphthene		<0.1	0.7	0.124	0.124	<0.1	**0.7**	0.27
	Fluorene		<0.1	1.2	0.127	0.127	<0.1	**0.47**	0.193
	Phenanthrene		<0.1	2.9	0.274	0.274	<0.1	**2.9**	0.838
	Anthracene		<0.1	0.96	0.123	0.123	<0.1	**0.96**	0.315
	Fluoranthene		<0.1	2.5	0.23	0.23	<0.1	**2.5**	0.713
	Pyrene		<0.1	1.9	0.2	0.2	<0.1	**1.9**	0.558
	Benzo(a)-anthracene		<0.1	1.3	0.149	0.149	<0.1	**0.79**	0.273
	Chrysene		<0.1	1.4	0.157	0.157	<0.1	**0.78**	0.27
	Benzo(b)-flouranthracene		<0.1	1.4	0.155	0.155	<0.1	**0.78**	0.27
	Benzo(k)-fluoranthene		<0.1	0.83	0.127	0.127	<0.1	**0.29**	0.148
	Benzo(a)pyrene		<0.1	0.96	0.14	0.14	<0.1	**0.55**	0.213
	Indeno(1,2,3-cd)pyrene		<0.1	0.84	0.124	0.124	<0.1	**0.24**	0.135
TPH	Aliphatic C_{12}-C_{16}		<5	8700	991.1	1986	3400	**3,400**	3400
	Aliphatic C_{16}-C_{21}		<5	8200	1443	3670	6600	**6,600**	6600
	Total Aliphatics (C_5-C_{35})		14	19000	3983	6359	12000	**12,000**	12000
	Aromatic C_{16}-C_{21}		<5	2000	244.7	477.5	530	**530**	530
	Total aromatics (C_5-C_{35})		<5	4200	943.4	1451	960	**960**	960
	Extractable Hydrocarbons (C_{21}-C_{35})		14	23000	4725	7519	13000	**13,000**	13000
	Total Hydrocarbons (C_5-C_{35})		14	23000	4919	8150	13000	**13,000**	13000

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.5.2: Comparison of groundwater analysis from Zone 5

			Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Zinc		Baseline	0.005	0.021	0.009	0.010	0.005	**0.011**	0.008
pH			5.6	7.8	6.865	7.032	6.7	**7.4**	7.067
VOC	1,1-Dichloroethane		<0.001	0.005	0.001	0.001[2]	<0.001	**0.002**	0.001

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean
2 – The upper 95th %ile is equal to laboratory reporting limits

Of the 16 No. PAHs analysed, 14 No. were found to exceed the Baseline Data for soils, localised in one sample taken from BH5_01 at 1.0m (within the Made Ground). These exceedances are considered to relate to historical contamination in the Made Ground (fragments of wood and a solvent odour were noted during drilling) rather than Permitted activities. In addition, the Hot Mill cellars extend to approximately 9m bgl and this localised contamination is present at approximately 1.0m bgl. PAH concentrations in groundwater were not detected in excess of Baseline Data.

Soil EPH C10-40 did not exceed Baseline Data in Zone 5, although a range of aliphatic and aromatic hydrocarbon fractions were found to exceed soil Baseline Data from one sample (BH5_03 at 1.5m). Given that the hot mill cellar walls and floor are in good condition and that during the lifetime of the Permit the hot mill has only used water and vegetable based coolants, **it is considered unlikely that the shallow localised hydrocarbons in soils relate to Permitted activities in Zone 5**.

Zinc and pH slightly exceed the groundwater Baseline Data but are considered to **relate to historical activities** (primarily the widespread presence of metals within the Swansea Valley Fill materials used during site development).

1,1 dichloroethane was detected slightly in excess of Baseline Data in one groundwater sample, taken from BH5_01 (the Baseline Data for 1,1 dichloroethane is equal to the laboratory reporting limit of 0.001mg/l). Groundwater was encountered at depth within a thick layer of Made Ground in this location. It is considered that the dichloroethane is **related to historical contamination** within the fill materials rather than Permitted activities, as neither this compound, nor chlorinated solvents, have been used in this Zone during the lifetime of the Permit.

2.7.6 Zone 6 – Hot Mill Tank Farm and Filter House

Table 2.7.6.1: Comparison of soil analysis from Zone 6

		Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Cadmium	**Reference Data**	0.2	0.2	0.2	n/a	<0.5	**<0.5**	<0.5[2]
Copper		19	19	19	n/a	23	**23**	23
Lead		9	9	9	n/a	10	**21**	15.5
Nickel		25	25	25	n/a	24	**33**	28.5
Zinc		58	58	58	n/a	67	**72**	69.5
Beryllium	**Base**	<0.5	2.3	0.849	0.849	0.9	1.1	1

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean
[2] –All concentrations detected are below laboratory reporting limits

Table 2.7.6.2: Comparison of groundwater analysis from Zone 6

		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Boron	**Baseline Data**	0.018	0.16	0.068	0.0847	0.056	0.16	0.108
pH		5.6	7.8	6.865	7.032	7.3	7.4	7.35

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Cadmium, copper, lead, nickel and zinc slightly exceeded soil Reference Data for Zone 6 while beryllium slightly exceeded soil Baseline Data. Boron and pH slightly exceeded groundwater Baseline Data. These inorganic contaminants are **considered to relate to historical sources**, (i.e. the widespread presence of metals within the fill materials used during site development) rather than the Permitted activities in Zone 6 (storage, filtration and recirculation of the hot mill lubrication oils). Hydrocarbons and PAHs were below Reference Data (where applicable) and Baseline Data in both soil and groundwater in Zone 6.

2.7.7 Zone 7 - Hot Mill Sub-Stations

Table 2.7.7.1: Comparison of soil analysis from Zone 7

		Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Baseline Data**	4.9	11.2	7.521	7.521	7.8	**7.9**	7.85
EPH (C_{10}-C_{40})		5	340,000	7,713	7,713	500	**32,000**	11,167

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

EPH in the shallow soils in Zone 7 exceeds soil Baseline Data in one sample (SS07_01), adjacent to a concrete transformer base. Localised hydrocarbon staining was observed during sampling, and therefore this contamination of the shallow soils in this area **may have occurred during the lifetime of the Permit.**

The pH slightly exceeds soil baseline but is likely to be due to the use of limestone chippings across the sub-station.

2.7.8 Zone 8 - Compressor Drainage

Table 2.7.8.1: Comparison of soil analysis from Zone 8

			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Arsenic		**Baseline Data**	3	710	40.72	40.72	150	**150**	150
Barium			10	570	107.5	107.5	330	**330**	330
Cadmium			<0.5	4.5	0.742	0.742	4.5	**4.5**	4.5
Copper			8.2	2900	167	167	820	**820**	820
Lead			10	5800	168.3	168.3	980	**980**	980
Mercury			<0.6	8.1	0.742	0.742	0.8	**0.8**	0.8
Nickel			4.5	150	29.88	29.88	60	**60**	60
Vanadium			5.2	72	21.71	21.71	28	**28**	28
Zinc			16	8500	306.3	306.3	8500	**8,500**	8,500
EPH (C_{10}-C_{40})			5	340000	7713	7713	3400	**16,000**	9,700
PAH	Acenaphthene		<0.1	0.12	0.1	0.1	0.14	**0.14**	0.14
	Phenanthrene		<0.1	2.9	0.274	0.274	1.5	**1.5**	1.5
	Anthracene		<0.1	0.96	0.123	0.123	0.32	**0.32**	0.32
	Fluoranthene		<0.1	2.5	0.23	0.23	2.5	**2.5**	2.5
	Pyrene		<0.1	1.9	0.2	0.2	1.8	**1.8**	1.8
	Benzo(a)-anthracene		<0.1	1.3	0.149	0.149	1.3	**1.3**	1.3
	Chrysene		<0.1	1.4	0.157	0.157	1.4	**1.4**	1.4
	Benzo(b)flourant hracene		<0.1	1.4	0.155	0.155	1.4	**1.4**	1.4
	Benzo(k)-fluoranthene		<0.1	0.83	0.127	0.127	0.83	**0.83**	0.83
	Benzo(a)pyrene		<0.1	0.96	0.14	0.14	0.96	**0.96**	0.96
	Indeno (1,2,3-cd) pyrene		<0.1	0.84	0.124	0.124	0.84	**0.84**	0.84

Table 2.7.8.1: Comparison of soil analysis from Zone 8									
			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
	Dibenzo (a,h)anthracene		<0.1	0.16	0.101	0.101	0.16	**0.16**	0.16
	Benzo(g,h,i) perylene		<0.1	0.84	0.127	0.127	0.84	**0.84**	0.84
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean									

The metals arsenic, barium, cadmium, copper, lead, mercury, nickel, vanadium and zinc exceed soil Baseline Data in the shallow Made Ground underlying the compressor drainage in Zone 8. During excavation, fragments of slag were noted to be present and the elevated metals are **considered to relate to the historical presence of such materials in the Made Ground.**

EPH and PAHs exceed Baseline Data in the shallow soils (0.05-0.15m) directly underlying the compressor drainage. This correlates with field observations of localised hydrocarbon staining in this area and is **considered to relate to Permitted activities**.

2.7.9 Zone 9 –Stores & IBC Storage Area

Table 2.7.9.1: Comparison of soil analysis from Zone 9									
			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
pH		Reference Data	6.08	8.46	7.23	n/a	5.9	**10.1**	7.16
Arsenic			8	544	209.67	n/a	16	**710**	151
Lead			12	793	295.1	n/a	26	**5,800**	946.9
Mercury			0	2	1.04	n/a	0.6	**8.1**	1.59
Nickel			27	40	30.17	n/a	20	**150**	53.78
Selenium			0.2	1.8	0.871	n/a	2.5	**20**	4.667
Barium		Baseline Data	10	570	107.5	107.5	66	**570**	239.4
Beryllium			<0.5	2.3	0.849	0.849	<0.5	**1.2**	0.911
Boron (W/S)			<0.5	3.9	0.684	0.684	<0.5	**2**	1.067
Cadmium			<0.5	4.5	0.742	0.742	<0.5	**2.9**	1.333
Vanadium			5.2	72	21.71	21.71	15	**70**	33.22
EPH (C_{10}-C_{40})			5	340,000	7713	7713	62	**340,000**	49,761
PAH	Naphthalene		<0.1	0.39	0.11	0.11	<0.1	**0.18**	0.111
	Phenanthrene		<0.1	2.9	0.274	0.274	<0.1	**0.61**	0.224
	Fluoranthene		<0.1	2.5	0.23	0.23	<0.1	**1**	0.257
	Pyrene		<0.1	1.9	0.2	0.2	<0.1	**0.79**	0.233
	Benzo(a) anthracene		<0.1	1.3	0.149	0.149	<0.1	**0.53**	0.171
	Chrysene		<0.1	1.4	0.157	0.157	0.1	**0.61**	0.18
	Benzo(b) flouran-thracene		<0.1	1.4	0.155	0.155	<0.1	**0.52**	0.18

Table 2.7.9.1: Comparison of soil analysis from Zone 9									
			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
	Benzo(k) fluoranthene		<0.1	0.83	0.127	0.127	<0.1	**0.35**	0.149
	Benzo(a)-pyrene		<0.1	0.96	0.14	0.14	<0.1	**0.45**	0.171
	Indeno (1,2,3-cd) pyrene		<0.1	0.84	0.124	0.124	<0.1	**0.35**	0.147
	Dibenzo (a,h)-anthracene		<0.1	0.16	0.101	0.101	<0.1	**0.12**	0.102
	Benzo(g,h,i) perylene		<0.1	0.84	0.127	0.127	<0.1	**0.52**	0.163
VOC	1,1- dichloro-propene		<0.025	0.39	0.034	0.034	<0.025	**0.39**	0.098
VOC	Carbon tetrachloride		<0.025	0.45	0.036	0.036	<0.025	**0.45**	0.11
VOC	1,2- dichloro-propane		<0.025	0.3	0.032	0.032	<0.025	**0.3**	0.08
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean									

Table 2.7.9.2: Comparison of groundwater analysis from Zone 9								
		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
Total PAHs	Ref Data	0	0	0	-	0.0001	**0.0002**	0.00015
Arsenic	Baseline Data	<0.005	0.14	0.014	0.025	<0.005	**0.14**	0.073
Boron	Baseline Data	0.018	0.16	0.069	0.084	0.1	**0.12**	0.11
Lead	Baseline Data	<0.005	0.006	0.005	0.005	<0.005	**0.006**	0.006
Selenium	Baseline Data	<0.005	0.038	0.007	0.011	0.01	**0.015**	0.013
Zinc	Baseline Data	<0.005	0.021	0.009	0.010	0.008	**0.017**	0.0125
pH	Baseline Data	5.6	7.8	6.86	7.032	5.6	**7.2**	6.45
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean								

The metals arsenic, lead, mercury, nickel and selenium and pH in soils exceed Reference Data for Zone 9. Barium, beryllium, boron, cadmium and vanadium exceed soil Baseline Data. A range of PAHs and a limited number of VOCs (1,1- dichloropropene, carbon tetrachloride and 1,2- dichloropropane) were also found to slightly exceed soil Baseline Data. Arsenic, boron, lead, selenium, zinc and pH were found to exceed groundwater Baseline Data.

Previous reports have indicated that Swansea Valley Fill was historically used in this area of the site during development. Field observations made during this investigation support this, with observations of approximately 2.0m of dense grey gravel fill. This, together with the good condition of the bunded compound indicate that the elevated concentrations of metals in soils and metals and pH in groundwater are **likely relate to the historical import of Swansea Valley Fill rather than Permitted activities (chemical storage).**

EPH and PAH concentrations were also found to exceed Baseline Data in a limited number of soil samples. The exceedances occurred in the Made Ground adjacent to the open oil/water drainage interceptor in the east of the Zone, with the greatest concentration being in the surface soil (HP09_02, 0-0.1m). Given the potential for spillages to occur from the open interceptor, it is considered that the localised **elevated hydrocarbons may relate to Permitted activities**. EPH concentrations in groundwater in Zone 9 do not exceed Baseline Data. The detected VOCs have not been used in this Zone during the lifetime of the Permit.

2.7.10 Zone 10 - Cold Mill Sub-Station and Transformers

Table 2.7.10.2: Comparison of soil analysis from Zone 10

		Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Baseline Data**	4.9	11.2	7.521	7.521	7.9	**8.2**	8.067
EPH (C_{10}-C_{40})		5	340,000	7713	7713	54	**53,000**	11137

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Concentrations of EPH exceed soil Baseline Data in four of the ten shallow soils samples obtained from the sub-station area (SS10_01, SS10_02, SS10_04 and SS10_06). S10_01 and SS10_02 were taken from an area reported to have been impacted by a localised transformer oil leak which occurred approximately 2 years ago.

SS10_04 and SS10_06 were taken from an earth embankment which lies between the Cold Mill house and the substation. Localised evidence of hydrocarbon staining was noted on the bank and it is considered that the surface soil contamination in this area relates to contaminated water runoff from the hardstanding at the top of the bank.

The shallow hydrocarbon contamination identified in Zone 10 is therefore **considered to relate to Permitted activities**.

The pH slightly exceeds Baseline Data, however, this is considered to relate to the presence of limestone chippings on the floor of the sub-station.

2.7.11 Zone 11 – Cold Mill Cellar

Table 2.7.11.1: Comparison of soil analysis from Zone 11

		Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Baseline Data**	4.9	11.2	7.52	7.52	4.9	**8.4**	6.5
Beryllium		<0.5	2.3	0.849	0.849	<0.5	**1.2**	0.9
Vanadium		5.2	72	21.71	21.71	13	**33**	22.71

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.11.2: Comparison of groundwater analysis from Zone 11

			Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Zinc		**Baseline Data**	0.005	0.021	0.009	0.010	0.02	**0.021**	0.013
TPH	Aliphatic (C12-C16)		<0.01	1.4	0.375	0.764	1.4	**1.4**	1.4
	Aliphatic (C16-C21)		<0.01	1.6	0.60	0.76	1.6	**1.6**	1.6

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean
[2] - All concentrations detected are below laboratory reporting limits

Beryllium, vanadium and pH were detected slightly in excess of soil Baseline Data while zinc was detected slightly in excess of groundwater Baseline Data. These are not considered to relate to the Permitted use of mill lubrication oils in this Zone and **are likely to be related to the historical composition on the Made Ground (including the widespread presence of metals within the Made Ground) across the site**.

Hydrocarbons in soil were below Baseline Data. Hydrocarbons in the aliphatic ranges C12-16 and C16-21 slightly exceeded groundwater Baseline Data, detected in the groundwater sample from BH11_01. However, EPH was below groundwater Baseline Data in the samples from BH11_02 and BH11_03. Given that the cold mill cellar walls and floor are in good condition and that during the lifetime of the Permit the cold mill has only used water and vegetable based coolants, **it is considered unlikely that the localised dissolved phase hydrocarbons in groundwater relate to Permitted activities in this Zone.**

2.7.12 Zone 12 – Cold Mill Tank Farm

Table 2.7.12.1: Comparison of soil analysis from Zone 12

			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH		**Ref. Data**	5.65	7.79	6.719	n/a	7.5	**10.3**	8.233
TPH			0	9,077	1,420.7	n/a	7,500	**23,000**	15,250
Beryllium		**Baseline Data**	<0.5	2.3	0.849	0.849	<0.5	**1**	0.725
Vanadium			5.2	72	21.71	21.71	6.9	**60**	26.73
EPH (C_{10}-C_{40})			5	340,000	7713	7713	91	**63,000**	15,062
PAH	Acenaphthene		<0.1	0.7	0.124	0.124	<0.1	**0.69**	0.174
	Flourene		<0.1	1.2	0.127	0.127	<0.1	**1.2**	0.241
	Phenanthrene		<0.1	2.9	0.274	0.274	<0.1	**2.2**	0.393
	Anthracene		<0.1	0.96	0.123	0.123	<0.1	**0.4**	0.138

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.12.2: Comparison of groundwater analysis from Zone 12

			Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Phenol		**Reference Data**	0	0.02	0.01	n/a	0.03	**0.03**	0.03
Phenanthrene			<0.0001	<0.005	<0.0017	n/a	<0.0001	**0.025**	0.013
Anthracene			<0.0001	<0.005	<0.0017	n/a	<0.0001	**0.010**	0.005
Arsenic		**Baseline Data**	<0.005	0.14	0.014	0.025	0.076	**0.076**	0.076
Boron			0.018	0.16	0.069	0.084	0.16	**0.16**	0.16
EPH (C_{10}-C_{40})			0.01	140	6.863	17.277	7.9	**140**	73.95
PAHs	Napthalene		0.0001	0.02	0.0024	0.0044	0.0015	**0.02**	0.0107
	Acenapthalene		0.0001	0.02	0.0024	0.0044	0.0013	**0.02**	0.0107
	Fluorene		0.0001	0.02	0.003	0.0052	0.017	**0.02**	0.0185
	Fluoranthene		0.0001	0.02	0.0023	0.0043	0.0003	**0.02**	0.0102
	Pyrene		0.0001	0.02	0.0023	0.0043	0.0007	**0.02**	0.0104
	Benzo(a) anthracene		0.0001	0.02	0.0023	0.0043	0.0002	**0.02**	0.0101
	Chrysene		0.0001	0.02	0.0023	0.0043	0.0001	**0.02**	0.0101
	Benzo(b)-fluoranthene		0.0001	0.025	0.0028	0.0054	0.0001	**0.025**	0.0125
	Benzo(k)-fluoranthene		0.0001	0.02	0.0023	0.0043	0.0001	**0.02**	0.0101
	Benzo(a)pyrene		0.0001	0.025	0.0028	0.0053	<0.0001	**0.04**	0.0201
	Indeno (1,2,3-cd)pyrene		0.0001	0.04	0.0044	0.0085	<0.0001	**0.04**	0.0201
	Dibenzo(a,h) anthracene		0.0001	0.04	0.0044	0.0085	<0.0001	**0.04**	0.0201
	Benzo(g,h,i) perylene		0.0001	0.04	0.0044	0.0085	<0.0001	**0.04**	0.0201
TPH	Aliphatic (C_{16}-C_{21})		0.01	1.6	0.59	1.06	1.4	**1.4**	1.4
	Aliphatic (C_{21}-C_{35})		0.01	28	4.96	11.70	28	**28**	28
	Total Aliphatic (C_5-C_{35})		0.01	30.02	5.98	13.01	30.02	**30.02**	30.02
	Aromatic (C_{21}-C_{35})		0.01	5.5	1.12	2.49	5.5	**5.5**	5.5
	Total Aromatics (C_5-C_{35})		0.01	5.77	1.35	2.77	5.77	**5.77**	5.77
	~~Extractable~~		~~0.01~~	~~35.79~~	~~7.30~~	~~15.71~~	~~35.79~~	~~**35.79**~~	~~35.79~~

Table 2.7.12.2: Comparison of groundwater analysis from Zone 12									
			Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand			Min	Max	Ave	Upper 95%ile [1]	Min	Max	Ave
	Hydrocarbons (C_{12}-C_{35})								
	Total Hydrocarbons (C_5-C_{35})		0.01	35.79	7.33	15.74	35.79	**35.79**	35.79
VOCs	Chloroethane		0.001	0.006	0.0012	0.0015	0.001	**0.006**	0.0035
	Toluene		0.001	0.003	0.0011	0.0012	0.001	**0.003**	0.002
	Ethyl Benzene		0.001	0.004	0.0011	0.0013	0.001	**0.004**	0.0025
	M,p-xylenes		0.001	0.0145	0.0015	0.0025	0.001	**0.015**	0.008
	o-xylene		0.001	0.008	0.0013	0.0017	0.001	**0.008**	0.0045
	1,2,4 trimethylbenzene		0.001	0.024	0.0018	0.0033	0.001	**0.024**	0.0125

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean
[2] – Analysis for EPH C10-20, C20-30 and C30-40 was undertaken on only two samples. Therefore, comparison of the maximum concentrations for Zone 12 have not been made against the upper 95th %ile for these carbon fractions. However, the sum of these fractions, EPH C10-40, has been compared against the upper 95th %ile for EPH C10-40 as it is considered there is a sufficient sample population size.

TPH and pH exceed soil Reference Data while beryllium, vanadium, EPH, fluorene, phenanthrene, acenapthene and anthracene exceed soil Baseline Data.

The beryllium, vanadium, pH and PAH exceedances were generally present within the Made Ground and are considered to be related to the **historical composition of the Made Ground rather than Permitted activities in Zone 12**.

EPH exceeds soil Baseline Data in three samples. The first was taken from BH12_01 at 1.0m, within the Made Ground (63,000mg/kg). The remaining elevated samples were collected from the shallow soils (up to 0.25m bgl) of an earth embankment between the cold mill amenity area and the cold mill tank farm. A stack is located in this vicinity which serves the cold mill and hydrocarbon staining is present on the embankment in the vicinity of the stack. The hydrocarbon contamination on the embankment is **considered to relate to the deposition of oils from the stack emissions and has occurred during the life of the Permit**.

Arsenic and boron exceed groundwater Baseline Data, but is considered to relate to historical use of metal contaminated fill materials rather than Permitted activities.

Phenol and the PAHs phenanthrene and anthracene in groundwater exceed Reference Data. In addition to the elevated EPH in the shallow Made Ground in BH12_01, dissolved phase EPH and TPH in groundwater in Zone 12 exceeds the groundwater Baseline Data. Several

VOCs, including chloroethane, toluene, ethylbenzene, xylenes and trimethylbenzene also exceed groundwater Baseline Data. As previously discussed, a thin (20mm) layer of free phase hydrocarbons has also been identified in BH12_01 (to the north of the cold mill filter house).

Given that free phase kerosene based hydrocarbons were previously identified in the immediate vicinity of the Cold Mill in 2002, (ExCal Limited, 'Alcoa Manufacturing (GB) Ltd, Waunarlwydd Works, Swansea. Site Investigation', September 2002) and that the kerosene based rolling oils previously in use in the cold mil were changed in the mid 1980's to the current (Permitted) vegetable based oils (i.e. prior to the operation of the Permit), **the dissolved phase and free phase hydrocarbons identified in Zone 12 represent historical contamination, unrelated to Permitted activities**.

2.7.13 Zone 13 – Effluent Treatment Plant

Table 2.7.13.1: Comparison of soil analysis from Zone 13

		Reference Data (mg/kg)					Surrender Data (mg/kg)	
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Chromium	**Reference Data**	19	392	84.8	n/a	15	**10,000**	1,478
Copper		6	107	53	n/a	8.9	**1,100**	103.5
Nickel		4	22	13.6	n/a	4.5	**47**	18.2
Selenium		0.2	0.3	0.24	n/a	<2.5	**9**	3.29
Zinc		13	206	110.2	n/a	16	**1,200**	198.63
Hexavalent Chromium		0	1.1	0.51	n/a	5	**430**	53.639
Barium	**Baseline Data**	10	570	107.5	107.5	10	**370**	96.17
Beryllium		<0.5	2.3	0.849	0.849	<0.5	**2.3**	0.837
Boron (W/S)		<0.5	3.9	0.684	0.684	<0.5	**1.8**	0.695
Vanadium		5.2	72	21.71	21.71	5.2	**35**	18.46
EPH		5	340,000	7,713	7,713	14	**11,000**	1,596.5
PAH Naphthalene		<0.1	0.39	0.11	0.11	<0.1	**0.16**	0.108
PAH Flourene		<0.1	1.2	0.127	0.127	<0.1	**0.21**	0.114
PAH Phenanthrene		<0.1	2.9	0.274	0.274	<0.1	**0.71**	0.176

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.13.2: Comparison of groundwater analysis from Zone 13

		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Sulphate	**Ref. Data**	15	78	38.57	n/a	170	**170**	170
Total TPH		11	0.97	3	n/a	14.8	**14.8**	14.8
Chromium	**Baseline Data**	0.005	0.011	0.005	0.006	0.005	**0.007**	0.006
Nickel		0.005	0.02	0.007	0.008	0.005	**0.009**	0.008
Aromatic (C21-C35)		0.01	5.5	1.115	2.489	3	**3**	3
Total Aromatics (C5-C35)		0.01	5.77	1.349	2.768	3.11	**3.11**	3.11

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

The metals chromium, copper, nickel, selenium, zinc and hexavalent chromium exceed soil Reference Data for Zone 13, while barium, beryllium, boron, vanadium, EPH, naphthalene, fluorene and phenanthrene exceed soil Baseline Data.

The soil exceedances for copper, nickel, selenium, zinc barium, beryllium, boron, vanadium and the PAHs are generally present in external areas of the Zone, and are considered likely to relate to the **historical composition of the Made Ground rather than Permitted activities**.

The elevated concentrations of chromium and hexavalent chromium were restricted to the soils underlying the ETP. Chromium and hexavalent chromium are both used during the coil coating process and **it is likely that the chromium contamination has occurred during the life of the Permit**.

EPH exceeded soil Baseline Data in HP13_01 at 0.5m bgl. HP13_01 was designed to target a localised area of hydrocarbon staining on the earth embankment between the ETP and the cold mill house. The hydrocarbon contamination is believed to relate to leaks from a short length of underground pipe, connecting an AST to the cold mill building and as such, is **considered to relate to Permitted activities**.

Sulphate and TPH exceed the groundwater Reference Data while chromium, nickel and aromatic hydrocarbons (in the range C21-C35 and also C5 to C35) exceed groundwater Baseline Data.

The sulphate and nickel exceedances in groundwater are expected to **relate to the presence of fill materials rather than Permitted activities**. Chromium does not exceed groundwater Reference Data.

The hydrocarbon exceedances in groundwater were detected in BH13_03, consistent with field observations of a thin layer (11.6cm) of free phase hydrocarbons identified in the first round of monitoring. The laboratory reported that the sample chromatogram of the free phase exhibited a trace consistent with lubrication oil. A second round of groundwater monitoring (1st June 2007) from BH13_03 did not identify free phase hydrocarbons within any well in Zone 13. However, analysis of a second sample from BH13_03 indicated that dissolved phase concentrations of hydrocarbons increased, from a total concentration (C5-C35) of 14.8mg/l to 35.70mg/l**. It is considered likely that this is related to Permitted activities within the Zone**.

2.7.14 Zone 14 – Solvent and MEK Storage

Table 2.7.14.2: Comparison of soil analysis from Zone 14

		Reference Data (mg/kg)				Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Ref. Data**	6.28	7.63	7.17	n/a	5.8	**7.6**	6.8
Arsenic	**Baseline Data**	3	710	40.72	40.72	43	**43**	43
Beryllium		<0.5	2.3	0.849	0.849	0.8	**1**	0.9
Vanadium		5.2	72	21.71	21.71	25	**25**	25
Sulphate		0	2200	253.2	414.4	440	**440**	440

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.14.2: Comparison of groundwater analysis from Zone 14

		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Nickel	**Baseline Data**	0.005	0.02	0.007	0.008	0.013	**0.013**	0.013
Selenium		0.005	0.038	0.007	0.011	0.038	**0.038**	0.038

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

The pH slightly exceeded soil Reference Data and arsenic beryllium, vanadium and sulphate slightly exceeded soil Baseline Data. However, **these are considered to relate to the composition of the Made Ground and variations in the natural soil rather than PPC activities (solvent storage) within this Zone**.

Nickel and selenium slightly exceed groundwater Baseline Data, again, they are considered to **relate to historical groundwater conditions**.

VOCs, including MEK, have not been detected in excess of laboratory reporting limits in the soils or groundwater in Zone 14.

2.7.15 Zone 15– Lacquer Storage

Table 2.7.15.1: Comparison of soil analysis from Zone 15

			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Arsenic		**Baseline Data**	3	710	40.72	40.72	72	**72**	72
Barium			10	570	107.5	107.5	120	**120**	120
Cadmium			<0.5	4.5	0.742	0.742	0.9	**0.9**	0.9
Mercury			<0.6	8.1	0.742	0.742	1.1	**1.1**	1.1
Vanadium			5.2	72	21.71	21.71	27	**27**	27
Sulphate			0	2,200	253.2	414.4	1,500	**1,500**	1,500
pH			4.9	11.2	7.521	7.521	6.9	**7.9**	7.4
SVOCs	Napthalene		0.15	13	2.579	6.139	13	**13**	13
	4-chloroaniline		<0.2	6.7	1.2	2.99	6.7	**6.7**	6.7
VOCs	Ethyl benzene		<0.025	64	1.665	1.665	<0.025	**64**	32.01
	m,p-Xylenes		<0.05	2.8	0.1205	0.1205	<0.05	**2.8**	1.425
	o-Xylene		<0.025	3.8	0.122	0.122	<0.025	**3.8**	1.913
	Isopropyl-benzene		<0.025	92	2.383	2.383	<0.025	**92**	46.01
	n-propylbenzene		<0.025	0.64	0.0408	0.0408	<0.025	**0.64**	0.333
	1,3,5 trimethyl-benzene		<0.025	11	5.513	40.161	<0.025	**11**	5.513
	1,2,4 trimethyl-benzene		<0.025	53	26.513	193.75	<0.025	**53**	26.51
	sec-butylbenzene		<0.025	0.45	0.2375	1.580	<0.025	**0.45**	0.238
	4 isopropyl-toluene		<0.025	0.47	0.2475	1.652	<0.025	**0.47**	0.248
TPH	Aliphatic C_5-C_6		<0.01	2.4	0.209	0.472	2.4	**2.4**	2.4
	Aliphatic C_6-C_8		<0.01	19	1.336	3.404	19	**19**	19

Table 2.7.15.1: Comparison of soil analysis from Zone 15

			Comparison Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
	Aliphatic C_8-C_{10}		<0.01	200	16.4	38.76	200	**200**	200
	Aliphatic C_{10}-C_{12}		<0.01	780	61.05	147.3	780	**780**	780 -
	Aromatic C_8-C_{10}		<0.01	340	27.17	64.96	340	**340**	340 -
	Aromatic C_{10}-C_{12}		<0.01	1200	93.45	226.1	1200	**1200**	1200 -
	Total Aromatics (C_5-C_{35})		5	4200	943.4	1451	1600	**1600**	1600 -
	Volatile Hydrocarbons (C_5-C_{12})		<0.01	2500	197.1	712.5	2500	**2500**	2500 -
BTEX	Ethylbenzene		<0.01	0.46	0.064	0.128	0.42	**0.42**	0.42
BTEX	m,p-Xylenes		<0.01	13	0.822	2.245	13	**13**	13
BTEX	o-Xylene		<0.01	18	1.136	3.107	18	**18**	18
BTEX	1,3,5- trimethyl-benzene		<0.01	97	6.072	16.7	97	**97**	97
BTEX	1,2,4- trimethyl-benzene		<0.01	390	27.88	73.56	390	**390**	390

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.15.2: Comparison of groundwater analysis from Zone 15

		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Chromium	**Baseline Data**	0.005	0.011	0.005	0.006	0.011	0.011	0.011
Selenium		0.005	0.038	0.007	0.011	0.021	0.021	0.021

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Arsenic, barium, cadmium, mercury, vanadium, sulphate and pH exceed soil Baseline Data within the Made Ground (BH15_01) and are considered to relate to the historical composition of the Made Ground. The Made Ground in this area was also noted to include fragments of metal. Chromium and selenium in groundwater exceed Baseline Data, but similarly **are not considered to relate to PPC activities in Zone 15**.

A limited number of SVOCs (naphthalene and chloroaniline), several VOCs (ethylbenzene, xylenes, isopropylbenzene, propylbenzene, trimethylbenzene, butylbenzene and isopropyltoluene) and a range of TPH fractions, predominantly in the lower carbon fractions (C5 to 12) were found to exceed soil Baseline Data. Tentatively identified VOC compounds

detected also included C3 benzene (0.07mg/kg), allybenzene (0.89mg/kg), 1,4 dimethyl-2-ethyl benzene (0.5mg/kg), 2-propyltoluene (0.16mg/kg), 3-ethyl-o-xylene (0.52mg/kg), m-cymene (0.48mg/kg), p-cymene(0.1mg/kg) and 2,5 dimethyl styrene (0.25mg/kg). These SVOCs and VOCs were detected within a sample of very shallow Made Ground (BH15_01, 0.1m), noted to have a coating of solidified white lacquer, and are **considered to be related to small scale spillages from PPC activities**. Deeper soils do not appear to have been impacted.

2.7.16 Zone 16– Waste Drum Storage Compound

Table 2.7.16.1: Comparison of soil analysis from Zone 16

			Reference Data (mg/kg)				Surrender Data (mg/kg)		
Determinand			**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH		**Reference Data**	7.99	8.68	8.37	n/a	7.2	**8.9**	7.91
Total VOC			0	0	0	n/a	<0.025	**0.056**	0.033
Barium		**Baseline Data**	10	570	107.5	107.5	31	**210**	147
Beryllium			<0.5	2.3	0.849	0.849	<0.5	**1.4**	0.8
Boron (W/S)			<0.5	3.9	0.684	0.684	<0.5	**1.2**	0.733
Nickel			4.5	150	29.88	29.88	8.3	**45**	22.77
	Aliphatic C_8-C_{10}		<0.01	200	16.4	38.76	<0.01	**58**	29.01
	Aliphatic C_{10}-C_{12}		<0.01	780	61.05	147.3	<0.01	**180**	90.01
	Aliphatic C_{21}-C_{35}		7.6	8400	1458	2424	2100	**3,100**	2,600
	Aromatic C_8-C_{10}		<0.01	340	27.17	64.96	0.04	**88**	44.02
	Aromatic C_{10}-C_{12}		<0.01	1200	93.45	226.1	<0.01	**270**	135
	Aromatic C_{21}-C_{35}		<0.01	3000	453.6	793.4	500	**650**	575
BTEX	MTBE		<0.01	0.023	0.011	0.012	<0.01	**0.023**	0.017
	Ethylbenzene		<0.01	0.46	0.064	0.128	<0.01	**0.46**	0.235
VOCs	Trichloro-ethene		<0.025	0.31	0.033	0.033	<0.0025	**0.31**	0.26
	Cis-1,2 dichloro-ethene		<0.025	0.56	0.045	0.045	<0.025	**0.25**	0.203
	Sec-butylbenzene		<0.025	0.45	0.0369	0.0369	<0.025	**0.063**	0.0377

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.16.2: Comparison of groundwater analysis from Zone 16								
	Comparison Data (mg/l)					**Surrender Data (mg/l)**		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Baseline Data**	5.6	7.8	6.9	7.0	7.3	**7.3**	7.3
[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean								

Barium, beryllium, boron and nickel exceed soil Baseline Data, but, as in many other Zones, are believed to be related to the **historical composition of the Made Ground and variations within the underlying Coal Measures rather than Permitted activities** (waste chemical storage). The pH in groundwater slightly exceeded Baseline Data but again is **not considered to relate to Permitted activities**.

A range of TPH fractions and a limited number of VOCs (MTBE, ethylbenzene, trichloroethene, cis-1,2 dichloroethene and sec-butylbenzene) exceed soil Baseline Data, which correlates with field observations of hydrocarbon staining and odour within the shallow soils. These are considered to be due to small scale localised spillages of waste chemicals the on the unsurfaced ground around the edge of the bund, **and as such are related to Permitted activities**. Groundwater has not been impacted by these compounds.

2.7.17 Zone 17– Disused Cooling Tower to East of Roll Shop.

2.7.18

Table 2.7.17.1: Comparison of soil analysis from Zone 17								
	Comparison Data (mg/kg)					**Surrender Data (mg/kg)**		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Barium	**Baseline Data**	10	570	107.5	107.5	17	**170**	100.3
Beryllium		0.5	2.3	0.849	0.849	0.5	**1.1**	0.814
Boron		0.5	3.9	0.684	0.684	0.5	**3.9**	1.1
Cadmium		0.5	4.5	0.742	0.742	0.5	**2.6**	1.057
Chromium		10	10,000	367.3	40.02	17	**1,000**	162.7
Copper		8.2	2,900	167	167	36	**360**	183.1
Lead		10	5,800	168.3	168.3	29	**270**	147
Nickel		4.5	150	29.88	29.88	14	**140**	45
Vanadium		5.2	72	21.71	21.71	10	**48**	25.86
Zinc		16	8,500	306.3	306.3	84	**720**	385.6
pH		4.9	11.2	7.521	7.521	6.4	**8.4**	7.525
Naphthalene		0.1	0.39	0.11	0.11	0.1	**0.21**	0.128

Table 2.7.17.1: Comparison of soil analysis from Zone 17

	Comparison Data (mg/kg)					Surrender Data (mg/kg)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
Acenapthene		0.1	0.12	0.1	0.1	0.1	**0.21**	0.124
Phenanthrene		0.1	2.9	0.274	0.274	0.1	**0.55**	0.264
Fluoranthene		0.1	2.5	0.23	0.23	0.1	**0.63**	0.296
Pyrene		0.1	1.9	0.2	0.2	0.1	**0.52**	0.274
Benzo(a)anthracene		0.1	1.3	0.149	0.149	0.1	**0.27**	0.168
Chrysene		0.1	1.4	0.157	0.157	0.1	**0.35**	0.19
Benzo(b)-fluoranthene		0.1	1.4	0.155	0.155	0.1	**0.36**	0.198
Benzo(a)-pyrene		0.1	0.96	0.14	0.14	0.1	**0.37**	0.182
Indeno(1,2,3-cd)pyrene		0.1	0.84	0.124	0.124	0.1	**0.22**	0.13
Benzo(g,h,i)-perylene		0.1	0.84	0.127	0.127	0.1	**0.22**	0.134
Aliphatic (C16-C21)		5	8,200	1,443	2,670	82	**6,200**	3,141
Aliphatic (C21-C35)		7.6	8,400	1,458	2,424	2,700	**8,400**	5,550
Total Aliphatics (C5-C35)		14	19,000	3,983	6,359	2,800	**16,000**	9,400
Aromatic (C16-C21)		5	2,000	244.7	477.5	34	**930**	482
Aromatic (C21-C35)		5	3,000	453.6	793.4	740	**3,000**	1,870
Total Aromatics (C5-C35)		5	4,200	943.4	1,451	780	**4,200**	2,490
Extractable Hydrocarbons (C12-C35)		14	23,000	4,725	7,519	3,600	**20,000**	11,800
Total Hydrocarbons (C5-C35)		14	23,000	4,919	8,150	3,600	**20,000**	11,800

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Table 2.7.17.2: Comparison of groundwater analysis from Zone 17

	Comparison Data (mg/l)					Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile [1]**	**Min**	**Max**	**Ave**
pH	**Baseline Data**	5.6	7.8	6.9	7.0	7.3	**7.3**	7.3

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

A range of metals and PAHs in the soils exceed reference or Baseline Data. Generally, the exceedances are present within samples of shallow Made Ground (less than 1.0m depth) and are considered to relate to the historical composition of the Made Ground rather than Permitted activities within this Zone.

A range of hydrocarbon fractions (C16-21 and C21-35) exceed Baseline Data in samples of the shallow Made Ground from two locations, WS17_01 at 0.2-0.5m (correlating with field observations of hydrocarbon staining) and HP17_01 at 0.2-0.5m. WS17_01 was located on concrete hardstanding adjacent to a disused storage shed. The hardstanding was in good condition with no staining, and it is considered that the localised hydrocarbon contamination in the Made Ground relates to historical contamination rather than the Permitted activities in Zone 17.

HP17_01 was located on a localised area of hydrocarbon staining on gravel dressed ground, and hydrocarbon odours were noted within the shallow Made Ground. Skips are located in this area which accepted waste from the engineering workshop (Zone 4). It is considered likely that the localised shallow hydrocarbon contamination in the vicinity of HP17 is related to Permitted activities in this area.

The groundwater pH slightly exceeds Baseline Data, but is not considered to relate to Permitted activities. Hydrocarbons in groundwater are below laboratory reporting limits (and therefore Baseline Data) and therefore groundwater has not been impacted by the localised hydrocarbon contamination in the shallow soil.

2.7.19 Zone 18 – Coil Coating Line

Table 2.7.18.2: Comparison of soil analysis from Zone 18

		Comparison Data (mg/l)				Surrender Data (mg/l)		
Determinand		**Min**	**Max**	**Ave**	**Upper 95%ile[1]**	**Min**	**Max**	**Ave**
Barium	**Baseline Data**	10	5702	107.5	107.5	<0.005	**0.008**	0.007
Beryllium		<0.5	2.3	0.849	0.849	0.6	**1.2**	0.917
Sulphate		0	2,200	253.2	414.4	220	**2,200**	782.5
pH		4.9	11.2	7.521	7.521	5.5	**8.1**	7.171

[1] – The upper 95th %ile relates to the 95% confidence limit of the measured mean

Barium and beryllium exceed soil Baseline Data in samples of the natural strata (glacial deposits) in Zone 18, but are **considered to relate to variations on the natural strata rather than Permitted activities**.

Sulphate slightly exceeds soil Baseline Data in two samples, taken from the natural glacial deposits in BH18_02, and considered to represent natural variations.

The maximum concentration of sulphate detected (2,200mg/kg) is localised within the Made Ground in BH18_01 and is **considered more likely to relate to the composition of the Made Ground as opposed to Permitted activities**.

Groundwater Baseline Data was not exceeded for Zone 18.

2.8 SCHEDULE OF REPORTS

The following reports and documents have been reviewed as part of this Site Surrender Report:

Table 2.7: Schedule of Reports

Title	Author	Date	Reference
Phase 1 Interim Assessment Report for Site-Wide hydrogeological Survey at Waunarlwydd Works, Swansea.	Geraghty and Miller International, Inc.	July 1993	NA
Site-Wide Hydrogeological Survey, Waunarlwydd Works, Swansea (Volume I: Text and Figures)	Geraghty and Miller International, Inc.	February 1994	ALCOAREP/JAN94/PR.acr
Site-Wide Hydrogeological Survey, Waunarlwydd Works, Swansea (Volume II: Appendices)	Geraghty and Miller International, Inc.	February 1994	ALCOAREP/JAN94/PR.acr
Alcoa Europe - Flat Rolled Products, Swansea, South Wales. Site Condition Report. Application for a Permit to Operate a Part A1 Installation under the Pollution Prevention and Control Regulations 2000	ENVIRON (UK) Ltd	November 2001	61-C5053A
Alcoa Manufacturing (GB) Ltd, Waunarlwydd Works, Swansea. Site Investigation	ExCAL	September 2002	
Alcoa Europe - Flat Rolled Products, Swansea, South Wales. Addendum to the ENVIRON Site Condition Report 15.11.01 Application for a Permit to Operate a Part A1 Installation under the Pollution Prevention and Control Regulations 2000	Natural Solutions	April 2004	ALCSW03F

Table 2.7: Schedule of Reports			
Title	**Author**	**Date**	**Reference**
Alcoa Global Business Shared Services: Additional Phase IIB Investigation Report, Alcoa Europe Extrusions and End Products, Waunarlwydd Works, Swansea	Arcadis Geraghty and Miller International, Inc.	January 2005	920740216
Phase I and II Environmental Assessment, Alcoa Mill Products, Waunarlwydd, Swansea	ENVIRON (UK) Ltd	November 2006	64-C10817

3.0 SITE CONDITION AT PERMIT SURRENDER

3.1 SOIL AND GROUNDWATER CONDITIONS

Table 3.1 summarises the condition of the soils and groundwater at the installation, based on the findings of the Surrender Data Investigation. Where available, the condition of the soils and groundwater at Permit application has also been summarised. As the data obtained during the SPMP monitoring is made available, together with remedial actions undertaken, this table will be updated.

Table 3.1: SUMMARY OF SITE CONDITION

Zone	Permitted Activities	Condition at Surrender	Condition at Application	Comments	Level of Confidence
Zone 1 - Ingot Plant Dross Shelter	Undercover storage of aluminium dross.	**Soil:** Ammonia (150 mg/kg), nickel (69 mg/kg) and zinc (190 mg/kg) in soils exceed Reference Data. Beryllium (1.2 mg/kg), boron (0.8 mg/kg), sulphate (650 mg/kg) and phenanthrene (0.32 mg/kg) in soils exceed the Baseline Data. **Groundwater:** Boron (0.12 mg/l) and nickel (0.02 mg/l) in groundwater exceed the groundwater Baseline Data.	**Soil Reference Data** Ammonia (maximum of 22.1mg/kg), pH ranging from 6.9 to 10.85. Maximum metal concentrations were: arsenic (14mg/kg), cadmium (1mg/kg), chromium (87mg/kg), copper (135mg/kg), lead (110mg/kg), mercury (1mg/kg), nickel (51mg/kg), selenium (1.3mg/kg) and zinc (135mg/kg). **Groundwater Reference Data:** No Reference Data available	**Soils:** Given the relatively poor condition of the concrete hardstanding underlying the dross shelter, the increase of metals and ammonia in soils since the Reference Data collection may have occurred during the operation of the Permit. **Groundwater:** The nickel and boron concentrations in groundwater are not considered significantly elevated and are more likely to relate to historical activities than operations carried out during the lifetime of the Permit.	High
Zone 2 – Ingot Plant Tank Farm	Above ground storage of red diesel.	**Soil:** Copper (39 mg/kg), nickel (52 mg/kg), zinc (110mg/kg) and pH (9.7) in soils slightly exceed the Reference Data. Barium (120 mg/kg), beryllium (1.3 mg/kg), sulphate (470 mg/kg) and vanadium (24 mg/kg) in soils slightly exceed soil Baseline Data. **Groundwater:** Groundwater from BH2_01 exceeds the Reference Data for zinc (0.012 mg/l) and Baseline Data for dichloroethane (0.029 mg/l) and trichloroethene (0.016 mg/l). Groundwater from BH2_03 exceeds the Reference Data for TPH (4.51 mg/l), and Baseline Data for phenanthrene (0.0071 mg/l) and anthracene (0.0058 mg/l).	**Soil Reference Data:** The pH ranged from 6.8 to 7.76. The maximum metal concentrations were: arsenic (40mg/kg), cadmium (0.7mg/kg), chromium (90mg/kg), copper (37mg/kg), lead (47mg/kg), mercury (1mg/kg), nickel (49mg/kg), selenium (0.8mg/kg) and zinc (101mg/kg in BH2). **Groundwater Reference Data:** pH ranged between 6.35 (1993) and 8.2 (1995). The maximum metal concentrations were: arsenic (0.1mg/l), cadmium (0.01mg/l), lead (0.05mg/l) and mercury (0.003mg/l). A TPH concentration of 1mg/l was detected in BH5 in 1995.	**Soils:** The slight exceedances of metals, pH and sulphate contamination in the soil are not considered to relate to Permitted activities. **Groundwater:** Metal and chlorinated solvent exceedances in groundwater are not considered to relate to Permitted activities. The dissolved phase hydrocarbons in BH2_03 are consistent with a mixture of heavily biodegraded diesel and lubrication oil standards. Therefore there is the potential for the localised hydrocarbon contamination in BH2_03 to have occurred during the life of the Permit.	High
Zone 3 – Scalper	Machining aluminium ingot. Lubricant and coolant oils and swarf were collected in a concrete cellar approximately 6m deep beneath the scalper.	**Soil:** Barium (110 mg/kg), beryllium (1.2 mg/kg), nickel (53 mg/kg), pH (11), naphthalene (0.14 mg/kg), fluorine (0.16 mg/kg) and phenanthrene (0.81 mg/kg) in soils slightly exceed the Baseline Data. **Groundwater:** Boron (0.14 mg/l), zinc (0.014 mg/l), ammoniacal nitrogen (2.1 mg/l as N and 2.7 mg/l as NH_4) and pH (7.8) in groundwater slightly exceed Baseline Data.	No information on condition at application.	**Soil:** Metal and PAH contamination is considered to relate to naturally occurring shallow coal seams in this Zone, rather than to Permitted activities. **Groundwater:** Exceedances of ammonia are considered more likely to be related to historical groundwater conditions. The concrete walls of scalper cellar are in good condition. Hydrocarbon exceedances concentrations have not been identified in soil or groundwater.	High
Zone 4 – Engineering Workshop	Engineering work to mill rollers and other equipment.	**Soil:** Various metals (barium (320 mg/kg), beryllium (1 mg/kg), boron (0.9 mg/kg), cadmium (2.6 mg/kg), copper (3902 mg/kg), lead (630 mg/kg), mercury (1 mg/kg), nickel (140 mg/kg), vanadium (72 mg/kg) and zinc (770 mg/kg)), pH (11.2) and various PAHs	No information on condition at application.	**Soils:** The hardstanding of the engineering workshop is in good condition. Metal and PAH exceedances were detected primarily in the Made Ground are likely to be associated with the presence of ashy fill material, as opposed to Permitted activities.	High

Table 3.1: SUMMARY OF SITE CONDITION					
Zone	**Permitted Activities**	**Condition at Surrender**	**Condition at Application**	**Comments**	**Level of Confidence**
		(phenanthrene (0.39 mg/kg), flouranthene (0.52 mg/kg), pyrene (0.38 mg/kg), benzo(a)anthracene (0.26 mg/kg), chrysene (0.34 mg/kg), benzo(b)flouranthracene (0.26 mg/kg), benzo(k)fluoranthene (0.16 mg/kg) and benzo(a)pyrene (0.19 mg/kg)) exceed soil Baseline Data.			
Zone 5 – Hot Mill Cellars	Concrete cellars and sumps under the hot mill, up to approximately 9m deep, for the collection of lubricant and cooling oils for recirculation around the Hot Mill.	**Soil:** Various PAHs (naphthalene (0.39 mg/kg), acenapthylene (0.12 mg/kg), acenapthene (0.7 mg/kg), phenanthrene (2.9 mg/kg), fluorine (0.96 mg/kg), fluoranthene (2.5 mg/kg), pyrene (1.9 mg/kg), benzo(a)anthracene (0.79 mg./kg), chrysene (0.78 mg/kg), benzo(b)flouranthene (0.78 mg/kg), benzo(k)flouranthene (0.29 mg/kg), benzo(a)pyrene (0.55 mg/kg) and indeno(1,2,3-cd)pyrene (0.24 mg/kg)) exceed the Baseline Data for soils in one shallow sample of Made Ground (BH5_01 at 1.0m). A range of aliphatic (total aliphatics; 12,000 mg/kg) and aromatic (total aromatic ; 960 mg/kg) hydrocarbon fractions exceed soil baseline in one sample (BH5_03 at 1.5m). **Groundwater:** Zinc (0.011 mg/l) and pH (7.4) slightly exceed groundwater Baseline Data. 1,1 dichloroethane (0.002 mg/l) slightly exceeds Baseline Data in BH5_01.	No information on condition at application.	**Soil:** The PAH exceedances are considered to relate to the historical composition of the Made Ground rather than Permitted activities. The hydrocarbon exceedances in BH5_03 are also localised and shallow The hot mill basements extend to approximately 9m bgl, however, localised contamination is present in shallow soils only, approximately 1.0m bgl (BH5_01) and 1.5m bgl (BH5_03). Furthermore, during the life of the Permit the hot mill has only used water and vegetable based coolants and therefore the localised presence of hydrocarbons is unlikely to relate to Permitted activities. **Groundwater:** Zinc and pH exceedances are considered to relate to historical activities (primarily the widespread presence of metals within the Swansea Valley Fill used during site development). Groundwater in BH5-01 was encountered at depth within a thick layer of Made Ground. It is considered that the localised dichloroethane exceedance relates to historical contamination rather than Permitted activities as chlorinated solvents have not been in use in this Zone during the lifetime of the Permit. Hydrocarbons and PAHs in groundwater were below the Baseline Data across the Zone.	High
Zone 6 – Hot Mill Waste Oil Tank Farm and Coolant Filter House	Filtration and storage of lubricant and cooling oils for the hot mill.	**Soil:** Cadmium (<0.5 mg/kg), copper (23mg/kg) lead (21 mg/kg), nickel (33 mg/kg) and zinc (72 mg/kg) slightly exceed soil Reference Data and beryllium (1.1 mg/kg) slightly exceeds the soil Baseline Data. Hydrocarbons and PAHs were below Baseline Data. **Groundwater:** Boron (0.16 mg/l) and pH (7.4) slightly exceeded groundwater Baseline Data. Hydrocarbons and PAHs were below Baseline Data.	**Soil Reference Data:** The pH ranged between 8.13 and 8.64. The maximum metal concentrations were: arsenic (8mg/kg), cadmium (0.2mg/kg), chromium (58mg/kg), copper (19mg/kg), lead (9mg/kg), mercury (1mg/kg), nickel (25mg/kg), selenium (0.2mg/kg) and zinc (58mg/kg). A maximum TPH concentration of 2,180 detected and a maximum total VOC concentration of 0.071mg/kg. **Groundwater Reference Data:** No Reference Data available.	**Soil:** The metal exceedances are considered to relate to historical sources, (i.e. the widespread presence of metals within fill materials used during site development) rather than the Permitted activities. **Groundwater:** Similarly, the boron and pH exceedances in groundwater are considered to relate to historical sources (i.e. the widespread presence of metals within fill materials used during site development) rather than the Permitted activities. Hydrocarbon or PAH exceedances were not identified in the soils or groundwater from the boreholes in this Zone.	High
Zone 7 – Hot Mill Sub-Stations	Electrical transformers.	**Soil:** Localised EPH (32,000 mg/kg) exceedances of Baseline Data in shallow soils (SS07_01). pH (7.9) slightly exceeds the soil baseline	No information on condition at application.	**Soil:** Localised hydrocarbon staining was observed during sampling; therefore the contamination of the shallow soils may have occurred during the lifetime of the Permit. The slightly alkaline pH is likely to be due to the use of limestone chippings across the sub-station rather than Permitted activities.	High

Table 3.1: SUMMARY OF SITE CONDITION					
Zone	**Permitted Activities**	**Condition at Surrender**	**Condition at Application**	**Comments**	**Level of Confidence**
Zone 8 – Compressor Drainage	Compressor drainage.	**Soil:** Arsenic (150 mg/kg), barium (330 mg/kg), cadmium (4.5 mg/kg), copper (820 mg/kg), lead (980 mg/kg), mercury (0.8 mg/kg), nickel (60 mg/kg), vanadium (28 mg/kg), zinc (8500 mg/kg), EPH (16000 mg/kg) and a range of PAHs exceed the soil Baseline Data in shallow Made Ground.	No information on condition at application.	**Soil:** The metal exceedances correspond with observations of slag in the Made Ground and are considered to relate to the historical presence of these materials in the Made Ground. EPH exceedances were detected in the shallow soils (0.05-0.15m) directly underlying the compressor drainage, corresponding with observations of localised hydrocarbon staining. This is considered to relate to Permitted activities. The source of the PAHs is uncertain and may relate to either Permitted activities or the historical composition of the Made Ground.	High
Zone 9 – Stores & IBC Storage Area	Chemical storage building within a dedicated bunded compound, including fuel oils, white spirits, acids and alkalis. This Zone also includes a large covered oil/water drainage interceptor and a smaller uncovered oil/water drainage interceptor.	**Soil:** pH (10.1), arsenic (710 mg/kg), lead (5800 mg/kg), mercury (8.1 mg/kg), nickel (150 mg/kg) and selenium (20 mg/kg) exceed Reference Data. Barium (570 mg/kg), beryllium (1.2 mg/kg), boron (2 mg/kg), cadmium (2.9 mg/kg) and vanadium (70 mg/kg) exceed soil Baseline Data. EPH (340,000 mg/kg), a range of PAHs and a limited number of VOCs (1,1- dichloropropene (0.39 mg/kg), carbon tetrachloride (0.45 mg/kg) and 1,2- dichloropropane (0.3 mg/kg)) slightly exceed soil Reference Data. **Groundwater:** Arsenic (0.14 mg/l), boron (0.12 mg/l), lead (0.006 mg/l), selenium (0.015 mg/l), zinc (0.017 mg/l) and pH (7.2) were found to exceed groundwater Baseline Data.	**Soil Reference Data:** The pH ranged between 6.08 and 8.46. A maximum ammonia concentration of 22.6mg/kg was detected. The maximum metal concentrations were: arsenic (544mg/kg), cadmium (22mg/kg), chromium (167mg/kg), copper (8,581mg/kg), lead (793mg/kg), mercury (2mg/kg), nickel (40mg/kg), selenium (1.8mg/kg) and zinc (5,842mg/kg). A maximum TPH concentration of 3,930mg/kg, phenol concentration of 3mg/kg and Total VOC concentration of 0.177mg/kg were detected. **Groundwater Reference Data:** Metal concentrations were: arsenic (1.08mg/l), cadmium (0.1mg/l), chromium (0.28mg/l) lead (6.145mg/l) and mercury (0.06mg/l).	**Soil:** Field observations indicate this area is underlain by Swansea Valley Fill. This was historically imported in this area of the site during development. In addition the bunded compound is in good condition. Therefore, the elevated metals and PAHs are likely to relate to the historical import of Swansea Valley Fill rather than Permitted activities. The limited number of VOCs detected have not been used during the life of the Permit and are also considered to relate to historical activities. EPH concentrations exceeded Baseline Data in a limited number of soil samples, adjacent to the open oil/water drainage interceptor in the east of the Zone. Given the potential for spillages to occur from the open interceptor, it is considered that the localised elevated hydrocarbons may relate to Permitted activities. **Groundwater:** The elevated metals and pH in groundwater are also considered to relate to the historical import of Swansea Valley Fill rather than Permitted activities. EPH concentrations in groundwater in Zone 9 do not exceed Baseline Data.	High
Zone 10 – Cold Mill Sub-Stations and Transformers	Electrical transformers and a localised area of hydrocarbon staining on an earth embankment between the sub-station and the cold mill building.	**Soil:** EPH (53,000 mg/kg) slightly exceed soil Baseline Data, EPH exceeded soil Baseline Data in four samples.	No information on condition at application.	**Soil:** Concentrations of EPH exceed soil Baseline Data in four shallow soils samples (SS10_01, SS10_02, SS10_04 and SS10_06). S10_01 and SS10_02 were taken from an area reported to have been impacted by a localised transformer oil leak which occurred approximately 2 years ago. SS10_04 and SS10_06 were taken from an earth embankment south of the substation outside switching yard. Localised evidence of hydrocarbon staining was noted on the bank and it is considered that the hydrocarbons relate to contaminated water runoff from the hardstanding at the top of the bank. The shallow hydrocarbon contamination identified in Zone 10 is therefore considered to relate to Permitted activities. The pH slightly exceeds Baseline Data, however, this is considered to relate to the presence of limestone chippings on the floor of the sub-station.	High
Zone 11 – Cold Mill Cellars	Concrete cellars and sumps under the hot mill, up to approximately 9m deep, for the collection of lubricant and	**Soil:** Beryllium (1.2 mg/kg), vanadium (33 mg/kg) and pH (8.4) were detected slightly in excess of Baseline Data. **Groundwater:** Aliphatic hydrocarbons in the range C12-16 (1.4mg/l) and C16-21 (1.6mg/l)slightly exceed groundwater Baseline Data in one sample (BH11_01).	No information on condition at application.	**Soil:** The pH and metals exceedances are considered to relate to the likely to be related to the historical composition on the Made Ground (including the widespread presence of metals within the Made Ground) across the site rather than the Permitted use of vegetable based oils and water based coolants in this Zone. Hydrocarbons in soil do not exceed Baseline Data.	High

Table 3.1: SUMMARY OF SITE CONDITION					
Zone	**Permitted Activities**	**Condition at Surrender**	**Condition at Application**	**Comments**	**Level of Confidence**
	cooling oils for recirculation around the cold mill.	Zinc (0.021 mg/l) was detected slightly in excess of Baseline Data.		**Groundwater:** The zinc exceedance is also considered to relate to the historical widespread presence of metals within the Made Ground across the site. Hydrocarbons in the aliphatic ranges C12-16 and C16-21 slightly exceeded groundwater Baseline Data from BH11_01. However, EPH was below groundwater Baseline Data in the samples from BH11_02 and BH11_03. Given that the cold mill cellar walls and floor are in good condition and that during the lifetime of the Permit the cold mill has only used water and vegetable based coolants, it is considered unlikely that the localised dissolved phase hydrocarbons in groundwater relate to Permitted activities in this Zone.	
Zone 12 – Cold Mill Tank farm	Filtration and storage of lubricant and cooling oils for the cold mill. Also includes an area of hydrocarbon staining on an unsurfaced earth embankment.	**Soil:** TPH (23,000 mg/kg) and pH (10.3 mg/kg) exceed soil Reference Data while beryllium (1 mg/kg), vanadium (60 mg/kg), EPH (63,000 mg/kg), fluorene (1.2 mg/kg), acenapthene (0.69mg/kg), phenanthrene (2.2 mg/kg) and anthracene (0.4 mg/kg) exceed soil Baseline Data. EPH exceeds soil Baseline Data in three samples. **Groundwater:** Phenol (0.03 mg/kg) and PAHs phenanthrene (0.025 mg/kg) and anthracene (0.1010 mg/kg)) exceed Reference Data. EPH (140 mg/kg), TPH, several VOCs (chloroethane (0.006 mg/kg), toluene (0.003 mg/kg), ethylbenzene (0.004 mg/kg), xylenes (0.019 mg/kg) and trimethylbenzene (0.024 mg/kg)) and several other PAHs exceed Baseline Data. A thin (20mm) layer of free phase hydrocarbons has also been identified in BH12_01 (to the north of the cold mill filter house).	**Soil Reference Data:** The pH ranged between 5.65 and 7.79. The maximum metal concentrations detected were: arsenic (53mg/kg), cadmium (2mg/kg), chromium (77mg/kg), copper (227mg/kg), lead (89mg/kg), mercury (1.3mg/kg), nickel (27mg/kg), selenium (4.73mg/kg) and zinc (311mg/kg). The maximum TPH concentration was 9,077 mg/kg and the maximum total VOC concentration was 0.193mg/kg. **Groundwater Reference Data:** Maximum metal concentrations were: arsenic (0.6mg/l), lead (2.78mg/l), mercury (0.05mg/l), nickel (0.008mg/l) and zinc (0.035mg/l). The VOCs benzene (maximum of 0.007mg/l) and toluene (maximum of 0.041mg/l).were also detected.	**Soil:** The beryllium, vanadium, pH and PAH exceedances were generally present within the Made Ground and are considered to be related to the historical composition of the Made Ground rather than Permitted activities. EPH exceeds soil Baseline Data in three samples. Two samples were collected from the hydrocarbon stained soils on the earth embankment between the cold mill amenity building and the cold mill tank farm. These are considered to relate to the deposition of oils from the stack emissions occurring during the life of the Permit. The third sample was taken from one from BH12_01 at 1.0m within the Made Ground (63,000mg/kg). The base of the filter house is steel lined and in good condition. Free phase kerosene based hydrocarbons were previously identified in the immediate vicinity of the Cold Mill in 2002, (ExCal Limited, 'Alcoa Manufacturing (GB) Ltd, Waunarlwydd Works, Swansea' Site Investigation', September 2002). However, the kerosene based rolling oils previously in use in the cold mil were changed in the mid 1980's to the current (Permitted) vegetable based oils (i.e. prior to the operation of the Permit), and the hydrocarbon contamination in the soil in BH12_01 is considered to represent historical contamination, unrelated to Permitted activities. **Groundwater:** Boron exceeds groundwater Baseline Data, but is considered to relate to historical use of metal contaminated fill materials rather than Permitted activities. The free phase hydrocarbons in BH12_01 and the dissolved phase are considered to relate to the kerosene based hydrocarbons were previously identified in the immediate vicinity of the Cold Mill and as such, are considered to represent historical contamination, unrelated to Permitted activities.	High
Zone 13 – Effluent Treatment Plant, Chemical Basement and Localised Oil Leak	Effluent treatment within a dedicated plant, including filtration, neutralisation and settlement. Also includes a localised area of hydrocarbon staining on the embankment between the Coil Preparation Line building and the ETP.	**Soils:** Chromium (10,000 mg/kg), copper (1100 mg/kg), nickel (47 mg/kg), selenium (9 mg/kg), zinc (1200 mg/kg) and hexavalent chromium (430 mg/kg) exceed soil Reference Data for Zone 13, while barium (370 mg/kg), beryllium (2.3 mg/kg), boron (1.8 mg/kg), vanadium (35 mg/kg), EPH (11,000 mg/kg), naphthalene (0.16 mg/kg), fluorine (0.21 mg/kg) and phenanthrene (0.71 mg/kg) exceed soil Baseline Data. EPH exceeded soil Baseline Data in HP13_01 at 0.5m bgl. **Groundwater:** Sulphate (170 mg/l) and TPH (14.8 mg/l) exceed groundwater Reference Data. Nickel (0.009 mg/l) and aromatic hydrocarbons (in the range C21-C35 (3 mg/l) and C5 to C35 (3.11 mg/l)) exceed groundwater Baseline Data.	**Soil:** The pH ranged from 5.98 to 11.92. The maximum metal concentrations detected were: arsenic (4,410mg/kg), cadmium (1mg/kg), chromium (392mg/kg), copper (107mg/kg), lead (1,510mg/kg), mercury (16mg/kg), nickel (22mg/kg), selenium (0.3mg/kg), zinc (206mg/kg) and hexavalent chromium (1.1mg/kg). The maximum TPH concentration was 3,643 mg/kg, the maximum total VOC concentration was 0.86mg/kg and the maximum phenol concentration was 2.19mg/kg. **Groundwater:** The pH ranged from 5.8 to 8.7 and the maximum sulphate concentration was 78mg/l. The maximum metal concentrations were: arsenic (1.3mg/l), cadmium (10.1mg/l), chromium (1.1mg/l), lead (9.57mg/l), mercury (0.08mg/l) and hexavalent chromium (1mg/l). The maximum concentration of TPH was 1mg/l. SVOCs were below laboratory reporting limits. VOCs detected (maximum concentrations) were: 1,1 dichloroethene, 1,2 dichloroethane and 1,1,1 trichloroethane (all 0.01mg/l), benzene (0.006mg/l), toluene (0.23mg/l), bromodichloromethane (0.016mg/l) and dibromochloromethane (0.042mg/l).	**Soil:** The soil exceedances for copper, nickel, selenium, zinc barium, beryllium, boron, vanadium and the PAHs are generally present in external areas of the Zone, and are considered likely to relate to the historical composition of the Made Ground rather than Permitted activities. The elevated concentrations of chromium and hexavalent chromium were restricted to the soils underlying the ETP. Chromium and hexavalent chromium are both used during the coil preparation process and it is likely that the chromium contamination has occurred during the life of the Permit. The elevated hydrocarbon contamination in HP13_01 is believed to relate to leaks from a short length of underground pipe, connecting an AST to the coil preparation line building and as such, is considered to relate to Permitted activities. **Groundwater:** The sulphate and nickel exceedances in groundwater are expected to relate to the presence of fill materials rather than Permitted activities. The hydrocarbon exceedances in groundwater were detected in BH13_03 only,	High

Table 3.1: SUMMARY OF SITE CONDITION					
Zone	**Permitted Activities**	**Condition at Surrender**	**Condition at Application**	**Comments**	**Level of Confidence**
				consistent with field observations of a thin layer (11.6cm) of free phase hydrocarbons identified in the first round of monitoring. The free phase product was consistent with lubrication oil. A second round of groundwater monitoring did not identify free phase hydrocarbons within any well in Zone 13, although chemical analysis indicated that total dissolved phase concentrations of hydrocarbons increased (14.8mg/l to 35.70mg/l). It is considered likely that this is related to Permitted activities within the Zone.	
Zone 14 – Solvent and MEK Storage	Bunded storage of solvents in 2 No. ASTs.	**Soil:** The pH (7.6) slightly exceeded soil Reference Data and arsenic (43mg/kg), beryllium (1 mg/kg), vanadium (25 m/kg) and sulphate (440 mg/kg) slightly exceeded soil Baseline Data. **Groundwater:** Nickel (0.013 mg/l) and selenium (0.038 mg/l) slightly exceed groundwater Baseline Data.	**Soil:** The pH ranged from 6.28 to 7.63. **Groundwater:** No information on condition at application.	**Soil:** The pH and metal exceedances are not considered significantly elevated and are more likely to relate to the composition of the Made Ground and variations in the natural soil rather than PPC activities (solvent storage) in this Zone. **Groundwater:** Nickel and selenium exceedances are considered to relate to historical groundwater conditions. VOCs, including MEK, have not been detected in excess of laboratory reporting limits in the soils or groundwater in Zone 14.	High.
Zone 15 – Lacquer Storage	Bunded storage of lacquers in 6 No. ASTs.	**Soils:** Arsenic (72 mg/kg), barium (120 mg/kg), cadmium (0.9 mg/kg), mercury (1.1 mg/kg), vanadium (2.7 mg/kg), sulphate (1500 mg/kg) and pH (7.9) exceed soil Baseline Data within the Made Ground (BH15_01). A limited number of SVOCs (naphthalene (13 mg/kg) and chloroaniline (6.7 mg/kg)), several VOCs (ethylbenzene (64 mg/kg), xylenes (6.6 mg/kg), isopropylbenzene (92 mg/kg), propylbenzene (0.64 mg/kg), trimethylbenzene (64 mg/kg), butylbenzene (0.45 mg/kg) and isopropyltoluene (0.47 mg/kg)) and a range of TPH fractions, predominantly in the lower carbon fractions (C5 to 12 (2500 mg/kg)) were found to exceed soil Baseline Data. Tentatively identified VOC compounds detected also included C3 benzene (0.07mg/kg), allybenzene (0.89mg/kg), 1,4 dimethyl-2-ethyl benzene (0.5mg/kg), 2-propyltoluene (0.16mg/kg), 3-ethyl-o-xylene (0.52mg/kg), m-cymene (0.48mg/kg), p-cymene(0.1mg/kg) and 2,5 dimethyl styrene (0.25mg/kg). **Groundwater:** Chromium (0.011 mg/l) and selenium (0.021 mg/l) in groundwater exceed Baseline Data.	No information on condition at application.	**Soils:** The metal exceedances are considered to relate to the historical composition of the Made Ground. The Made Ground in this area was also noted to include fragments of metal. The SVOCs and VOCs were detected were localised within a sample of very shallow Made Ground (BH15_01, 0.1m), noted to have a coating of solidified white lacquer. They are considered to relate to small scale lacquer spillages from PPC activities. Deeper soils do not appear to have been impacted. **Groundwater:** The metal exceedances are again considered to relate historical groundwater conditions rather than Permitted activities. SVOC and VOCs in groundwater are below laboratory reporting limits and groundwater is not considered to have been impacted by groundwater has not been impacted by Permitted activities.	High
Zone 16 – Waste Drum Storage Compound	Storage of waste chemicals and oils in drums and IBCs.	**Soils:** Barium (210 mg/kg), beryllium (1.4 mg/kg), boron (1.2 mg/kg) and nickel (45 mg/kg) exceed Baseline Data. A range of TPH fractions and a limited number of VOCs (MTBE (0.023 mg/kg), ethylbenzene (0.46 mg/kg), trichloroethene (0.31 mg/kg), cis-1,2dichloroethene (0.25mg/kg) and sec-butylbenzene(0.063mg/kg) exceed soil Baseline Data **Groundwater:** The pH (7.3) in groundwater slightly exceeds Baseline Data.	**Soil:** The pH ranged from 7.99 to 8.68. VOCs were below laboratory reporting limits.	**Soils:** Barium, beryllium, boron and nickel exceed Baseline Data, but, as in many other Zones, are believed to be related to the historical composition of the Made Ground and variations within the underlying Coal Measures rather than Permitted activities (waste chemical storage). The TPH and VOC exceedances correlate with field observations of hydrocarbon staining and odour within the shallow soils. These are considered to be due to small scale localised spillages of waste chemicals during the on the unsurfaced ground around the edge of the bund, and as such are related to Permitted activities. **Groundwater:** The pH in groundwater slightly exceeded Baseline Data but again is not considered to relate to Permitted activities. VOCs and hydrocarbons in groundwater do not exceed Baseline Data and do not appear to have been impacted by Permitted activities in this Zone.	High
Zone 17 – Disused Cooling	External skip storage area, with skips	**Soil:** pH (8.4), barium (170 mg/kg), beryllium (1.1 mg/kg), boron (3.9 mg/kg), cadmium (2.6 mg/kg), chromium (1000 mg/kg), copper (360	No information on condition at application.	**Soil:** The metals and PAHs exceedances are generally, the exceedances are present within samples of shallow Made Ground (less than 1.0m depth) and are	High

Table 3.1: SUMMARY OF SITE CONDITION

Zone	Permitted Activities	Condition at Surrender	Condition at Application	Comments	Level of Confidence
Tower to East of Roll Shop	accepting waste from the engineering workshop (Zone 4). Disused former hot mill coolant tower.	mg/kg), lead (270 mg/kg), nickel (140 mg/kg), vanadium (48 mg/kg), and zinc (720 mg/kg) exceeded Baseline Data. A range of PAHs (naphthalene (0.21 mg/kg), acenapthene (0.21 mg/kg), phenanthrene (0.55 mg/kg), fluoranthene (0.63 mg/kg), pyrene (0.52 mg/kg), benzo(a)anthracene (0.27 mg/kg), chrysene (0.35 mg/kg), benzo(b)flouranthene (0.36 mg/kg), benzo(a)pyrene (0.37 mg/kg), indeno(1,2,3-cd)pyrene (0.22 mg/kg), and benzo(g,h,i) perylene (0.22 mg/kg)) exceeded Baseline Data. TPH carbon fractions (C16-C21 (6200 mg/kg) and C21-C35 (8400 mg/kg)) and EPH also exceeded Baseline Data. **Groundwater:** Groundwater pH (7.3) slightly exceeds Baseline Data.		considered to relate to the historical composition of the Made Ground rather than Permitted activities within this Zone. Hydrocarbons exceeded Baseline Data in samples of the shallow Made Ground from two locations, WS17_01 at 0.2-0.5m (correlating with field observations of hydrocarbon staining) and HP17_01 at 0.2-0.5m. WS17_01 was located on concrete hardstanding adjacent to a disused storage shed. The hardstanding was in good condition with no staining, and it is considered that the localised hydrocarbon relates to historical contamination rather than the Permitted activities in Zone 17. HP17_01 was located on a localised area of hydrocarbon staining on gravel dressed ground, and hydrocarbon odours were noted within the shallow Made Ground. Skips are located in this area which accepted waste from the engineering workshop (Zone 4). It is considered likely that the localised shallow hydrocarbon contamination in the vicinity of HP17 is related to Permitted activities. **Groundwater:** The groundwater pH slightly exceeds Baseline Data but is not considered to relate to Permitted activities. Hydrocarbons in groundwater are below laboratory reporting limits and have not been impacted by the localised hydrocarbon contamination in the shallow soil.	
Zone 18 – Coil Preparation Line	Cleaning and acid etching of aluminium coils and chrome plating.	**Soils:** Barium (140 mg/kg), beryllium (1.2 mg/kg) and sulphate (2,200 mg/kg) exceed soil Baseline Data. **Groundwater:** Groundwater Baseline Data was not exceeded.	No information on condition at application.	Barium and beryllium exceed soil Baseline Data in samples of the natural strata (glacial deposits), but are considered to relate to variations on the natural strata rather than Permitted activities. Sulphate slightly exceeds soil Baseline Data in two samples of the natural glacial deposits and considered to represent natural variations. The maximum concentration (2,200mg/kg) was localised within the Made Ground in BH18_01 and it is considered more likely to relate to the composition of the Made Ground as opposed to Permitted activities.	High

* Concentrations stated in Condition at Surrender Column is the maximum concentration detected in that zone.

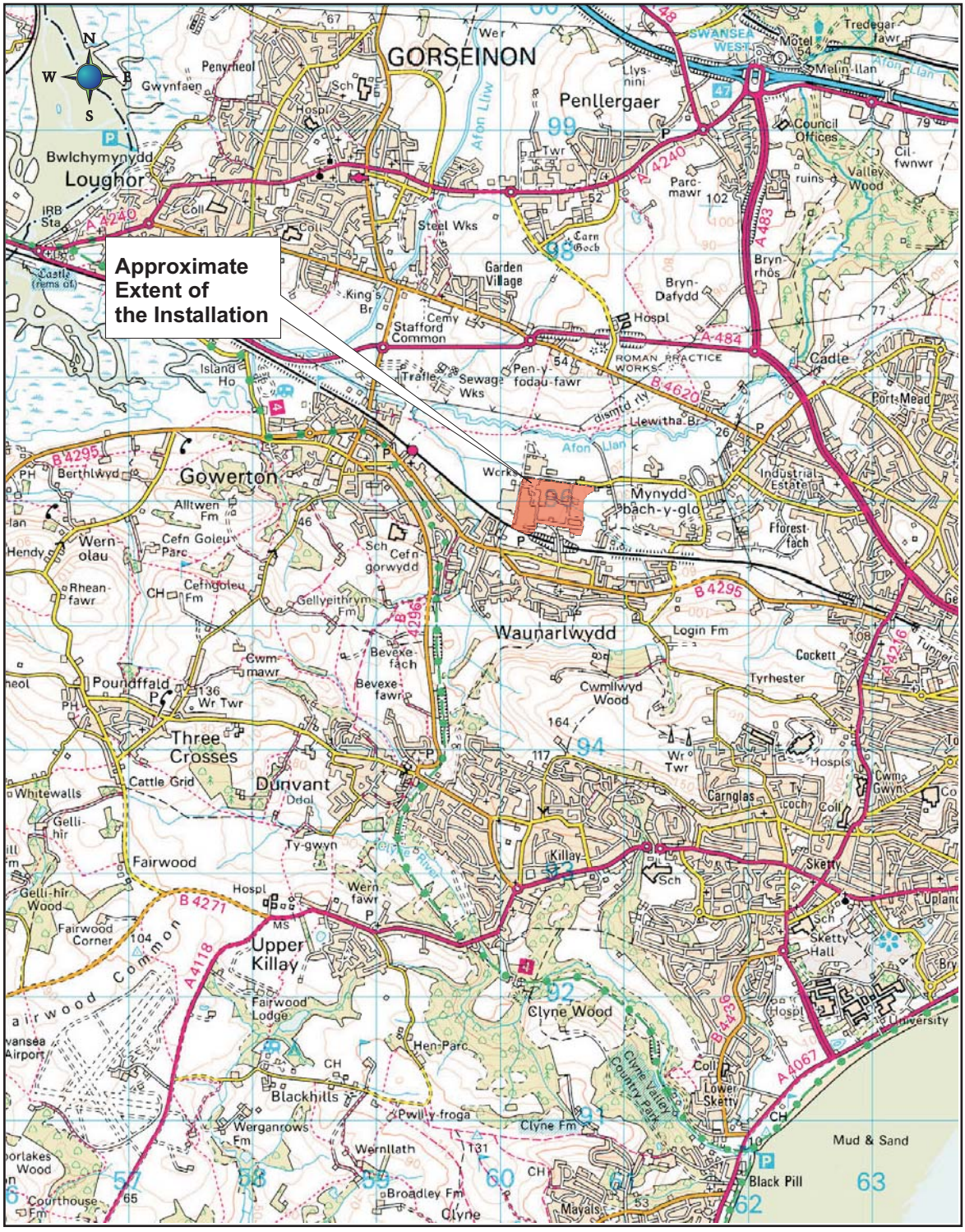
3.2 SUMMARY OF POLLUTION FROM PERMITTED ACTIVITIES

Zones where pollution has been identified, which is considered likely to relate to Permitted activities, are presented in Table 3.2 below.

TABLE 3.2: SUMMARY OF POLLUTION LIKELY TO RLEATE TO PERMITTED ACTIVITIES

Zone	Pollutant and Likely Permitted Source
Zone 1 – Ingot Plant Dross Shelter	Given the relatively poor condition of the concrete hardstanding underlying the dross shelter, the increase of ammonia, metals (cadmium, nickel, zinc, beryllium and boron), sulphate and phenanthrene in shallow soil since the Reference Data collection may have occurred during the operation of the Permit.
Zone 2 – Ingot Plant Tank Farm	Dissolved phase hydrocarbons in BH2_03 are consistent with a mixture of heavily biodegraded diesel and lubrication oil standards. Therefore there is the potential for the localised hydrocarbon contamination in BH2_03 to relate to the above ground storage of fuel oil.
Zone 7 – Hot Mill Sub-Stations	Hydrocarbon contamination of shallow soil correlating with observations of hydrocarbon staining adjacent to transformer bases. Likely to relate to leaks during the life of the Permit.
Zone 8 – Compressor Drainage	Localised hydrocarbons in shallow soils correlating with hydrocarbon staining directly underlying the compressor drainage.
Zone 10 – Cold Mill Sub-Stations	Localised hydrocarbons in shallow soils in an area impacted by a localised transformer oil leak which occurred approximately 2 years ago, during Permitted operations. Localised hydrocarbon in shallow soils on the bank to the south of the substation outside switching yard, is likely to relate to contaminated water runoff from the hardstanding at the top of the bank during Permitted operations.
Zone 12 – Cold Mill Tank Farm	Shallow hydrocarbon contamination of the earth embankment to the south of the Cold Mill Tank Farm. Contamination originates from the Cold Mill fume extraction stack.
Zone 13 - Effluent Treatment Plant, Chemical Basement and Localised Oil Leak	Chromium and hexavalent chromium in soils underlying the ETP building. The ETP accepts effluent from the Coil Preparation Line. Chromium and hexavalent chromium are both used during the coil preparation process and it is likely that the chromium contamination has occurred during the life of the Permit.
	Localised hydrocarbon contamination in the shallow soil on an earth embankment between the coil preparation line building and the ETP, correlating with an area of hydrocarbon staining, believed to relate to leaks from a short length of underground pipe, connecting an AST to the coil preparation building.
	Localised dissolved phase hydrocarbons in groundwater in BH13_03, consistent with lubrication oil.
Zone 15 – Lacquer Storage	Localised surface soil contamination with hydrocarbons, VOCs and SVOCs correlating with observations of localised lacquer spillages on gravel to the south of the tank bund, likely to have occurred during Permit operation.
Zone 16 – Waste Drum Storage Compound	Hydrocarbons and VOCs in shallow soil correlating with observations of staining on open ground adjacent to the bunded compound, likely to have occurred during the lifetime of the Permit.
Zone 17 - Disused Cooling Tower to East of Roll Shop.	Localised hydrocarbons in shallow soils correlating with hydrocarbon staining on gravel dressed ground, likely to relate to run-off from the skips which accepted waste from the engineering workshop (Zone 4).

APPENDIX A: FIGURES



Reproduced from the Ordnance Survey Map with the permission of the controller HMSO. Crown Copyright Reserved.

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Figure A1

Site Location Plan

Client: ALCOA	Project No.: 64-C11647
Scale: 1:50,000	Date: July 2007

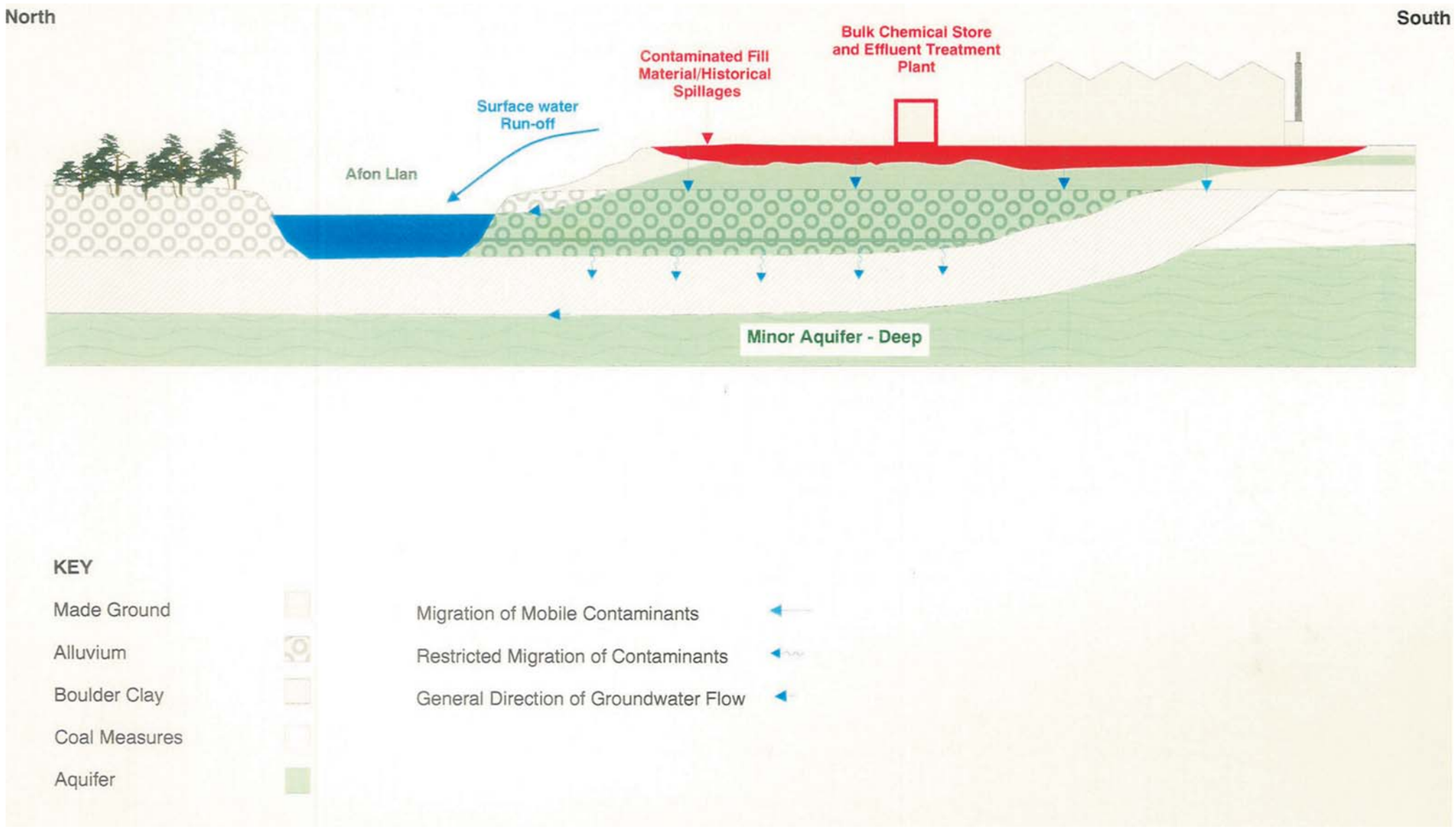


Figure taken from the Site Condition Report as part of the Application for a Permit to Operate a Part A1 Installation under the Pollution Prevention and Control Regulations 200, produced by ENVIRON in November 2001

ENVIRON

Alcoa Mill Products, Swansea
Site Surrender Data

Figure A2

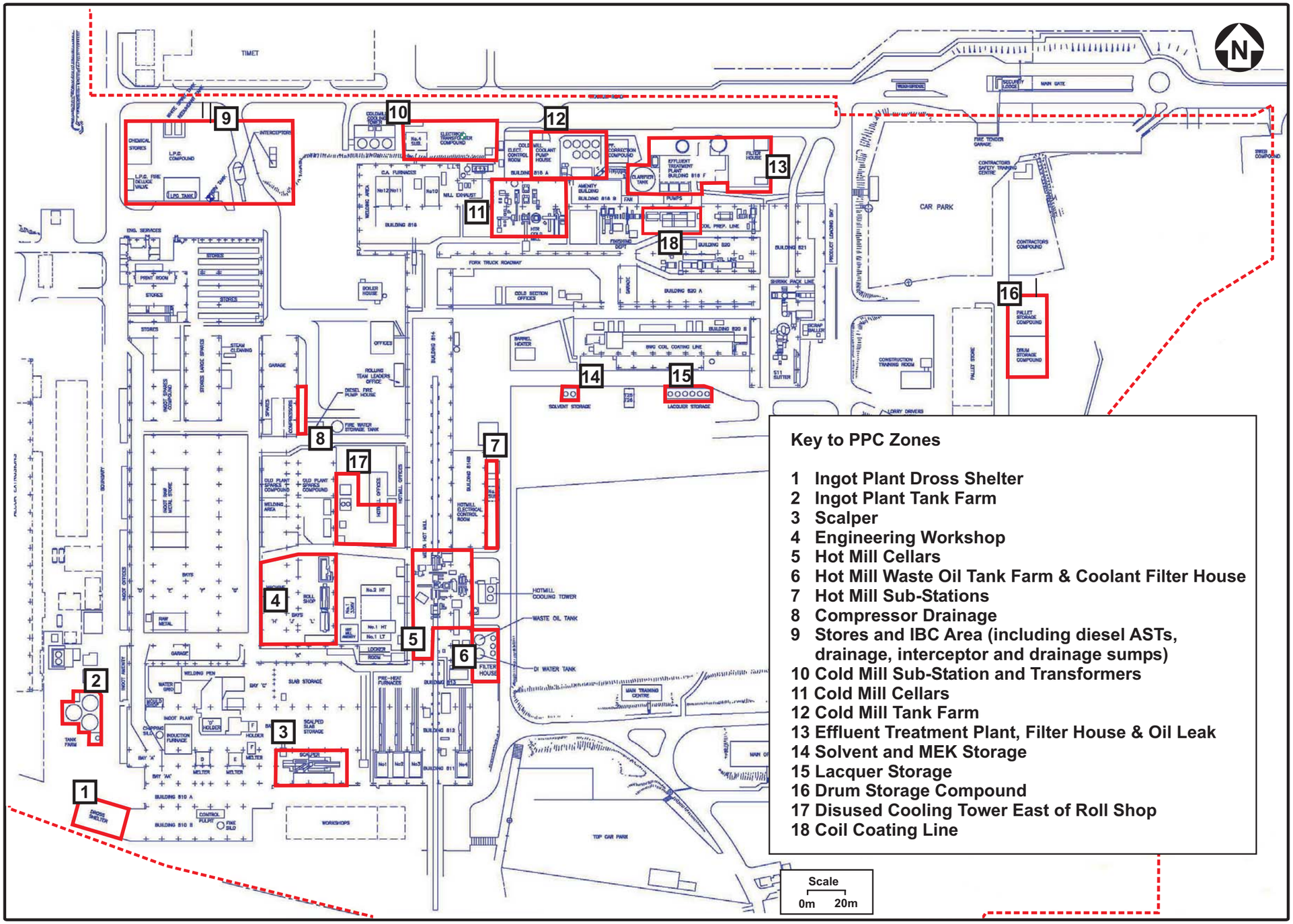
Preliminary Conceptual Site Model from Site Condition Report

Client: ALCOA

Scale: NTS

Project No.: 64-C11647

Date: July 2007



Key to PPC Zones

1 Ingot Plant Dross Shelter
2 Ingot Plant Tank Farm
3 Scalper
4 Engineering Workshop
5 Hot Mill Cellars
6 Hot Mill Waste Oil Tank Farm & Coolant Filter House
7 Hot Mill Sub-Stations
8 Compressor Drainage
9 Stores and IBC Area (including diesel ASTs, drainage, interceptor and drainage sumps)
10 Cold Mill Sub-Station and Transformers
11 Cold Mill Cellars
12 Cold Mill Tank Farm
13 Effluent Treatment Plant, Filter House & Oil Leak
14 Solvent and MEK Storage
15 Lacquer Storage
16 Drum Storage Compound
17 Disused Cooling Tower East of Roll Shop
18 Coil Coating Line

Key

ALCOA Site Boundary

PPC Zone Boundaries

ENVIRON

Alcoa Mill Products, Swansea Site Surrender Data

Figure A3

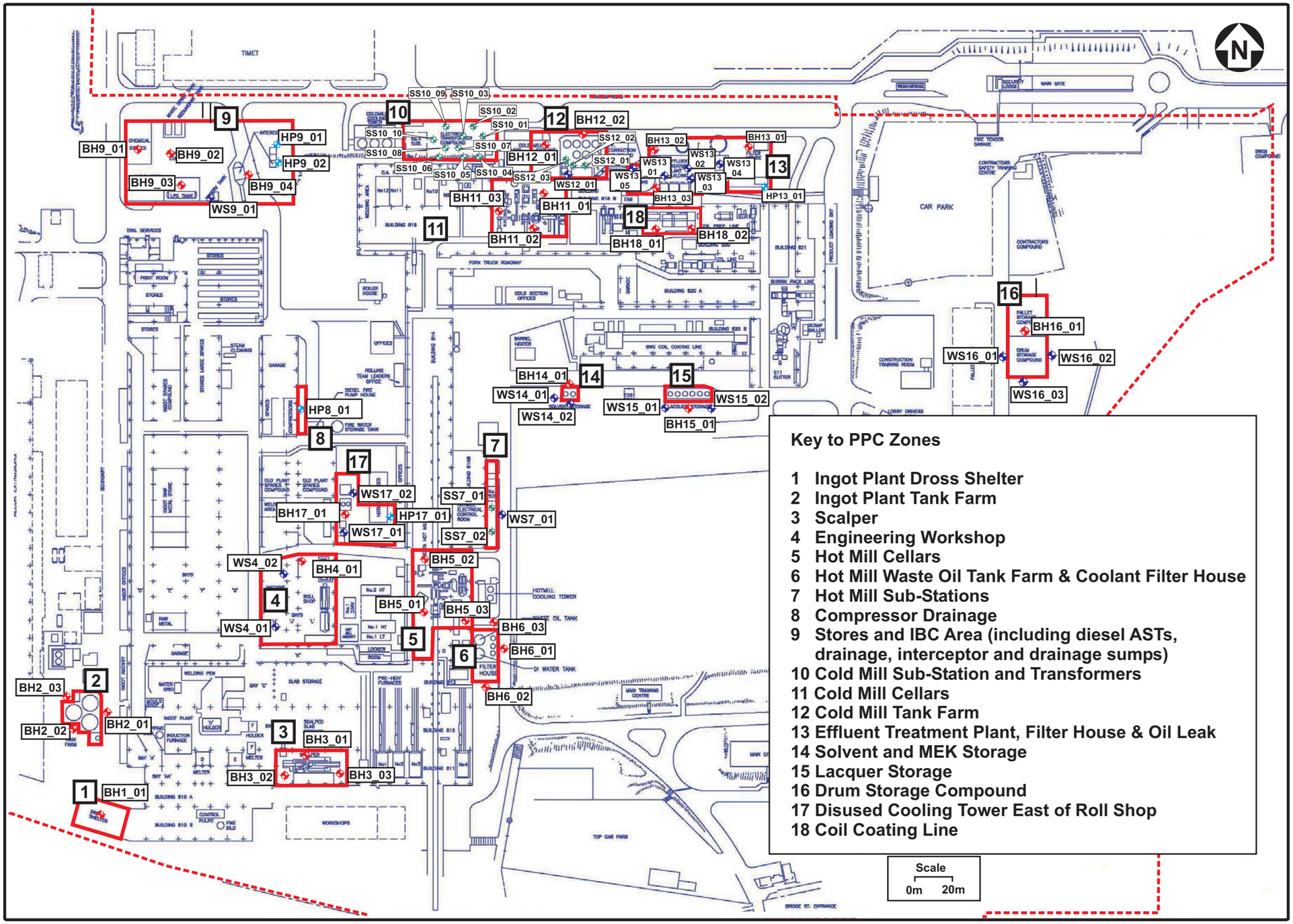
PPC Surrender Data Zones

Client: ALCOA

Scale: Refer to Scale Bar

Project No.: 64-C11647

Date: May 2007



Key to PPC Zones

1 Ingot Plant Dross Shelter
2 Ingot Plant Tank Farm
3 Scalper
4 Engineering Workshop
5 Hot Mill Cellars
6 Hot Mill Waste Oil Tank Farm & Coolant Filter House
7 Hot Mill Sub-Stations
8 Compressor Drainage
9 Stores and IBC Area (including diesel ASTs, drainage, interceptor and drainage sumps)
10 Cold Mill Sub-Station and Transformers
11 Cold Mill Cellars
12 Cold Mill Tank Farm
13 Effluent Treatment Plant, Filter House & Oil Leak
14 Solvent and MEK Storage
15 Lacquer Storage
16 Drum Storage Compound
17 Disused Cooling Tower East of Roll Shop
18 Coil Coating Line

Key

- ALCOA Site Boundary
- PPC Zone Boundaries
- Rotary Borehole
- Window Sample Borehole
- Surface Soil Sample
- Hand Excavated Trial Pit

ENVIRON

Alcoa Mill Products, Swansea Site Surrender Data

Figure A4

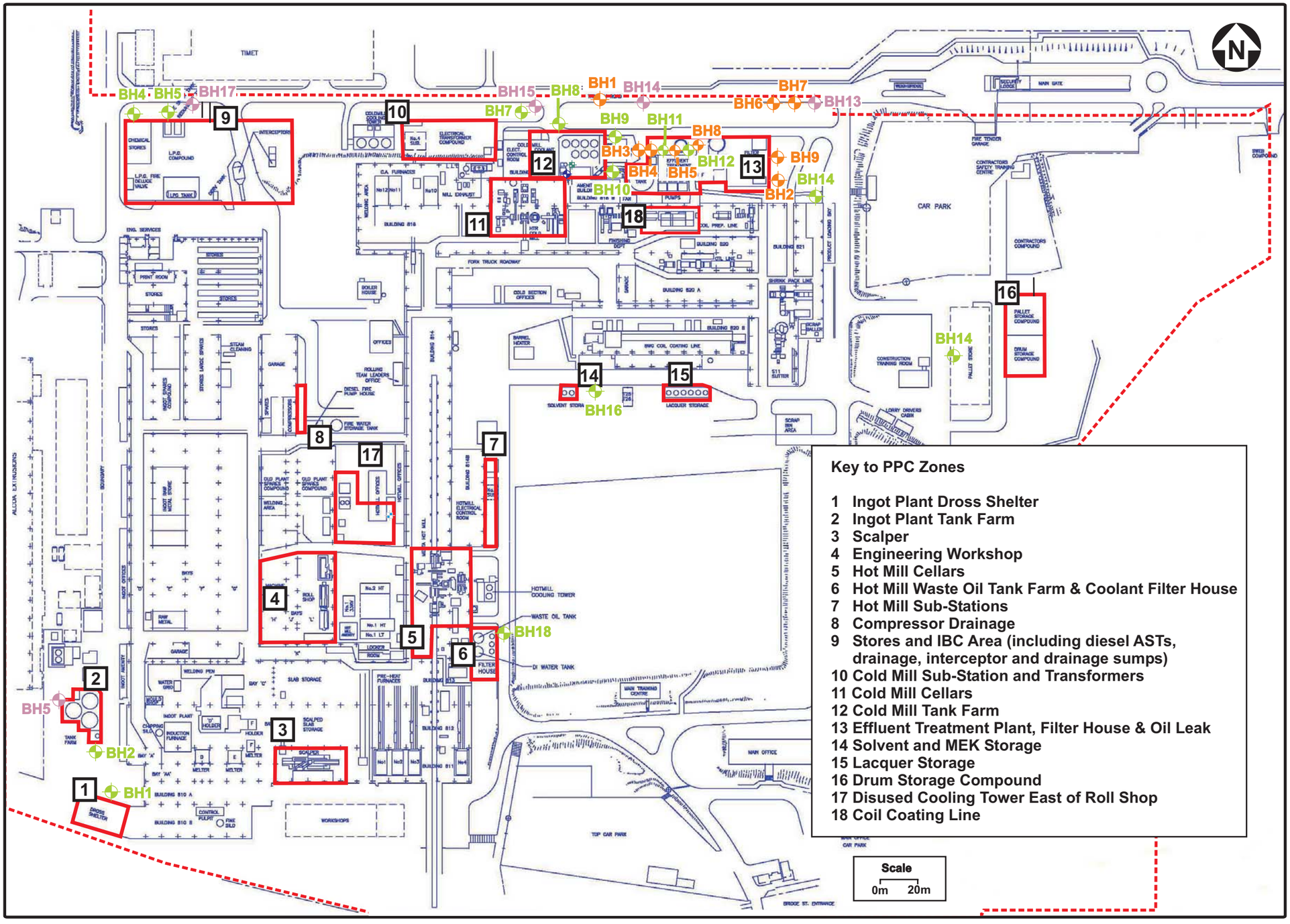
Sample Locations

Client: ALCOA

Scale: Refer to Scale Bar

Project No.: 64-C11647

Date: July 2007



Key to PPC Zones

1 Ingot Plant Dross Shelter
2 Ingot Plant Tank Farm
3 Scalper
4 Engineering Workshop
5 Hot Mill Cellars
6 Hot Mill Waste Oil Tank Farm & Coolant Filter House
7 Hot Mill Sub-Stations
8 Compressor Drainage
9 Stores and IBC Area (including diesel ASTs, drainage, interceptor and drainage sumps)
10 Cold Mill Sub-Station and Transformers
11 Cold Mill Cellars
12 Cold Mill Tank Farm
13 Effluent Treatment Plant, Filter House & Oil Leak
14 Solvent and MEK Storage
15 Lacquer Storage
16 Drum Storage Compound
17 Disused Cooling Tower East of Roll Shop
18 Coil Coating Line

ALCOA Site Boundary

PPC Zone Boundaries

Reference Data Location Points

Applied Geology Boreholes (1992)*

Geraghty & Miller Boreholes (1993)*

Natural Solutions Boreholes (2003)

* Presented in ENVIRON Site Condition Report (2001)

ENVIRON

Alcoa Mill Products, Swansea Site Surrender Data

Figure A5

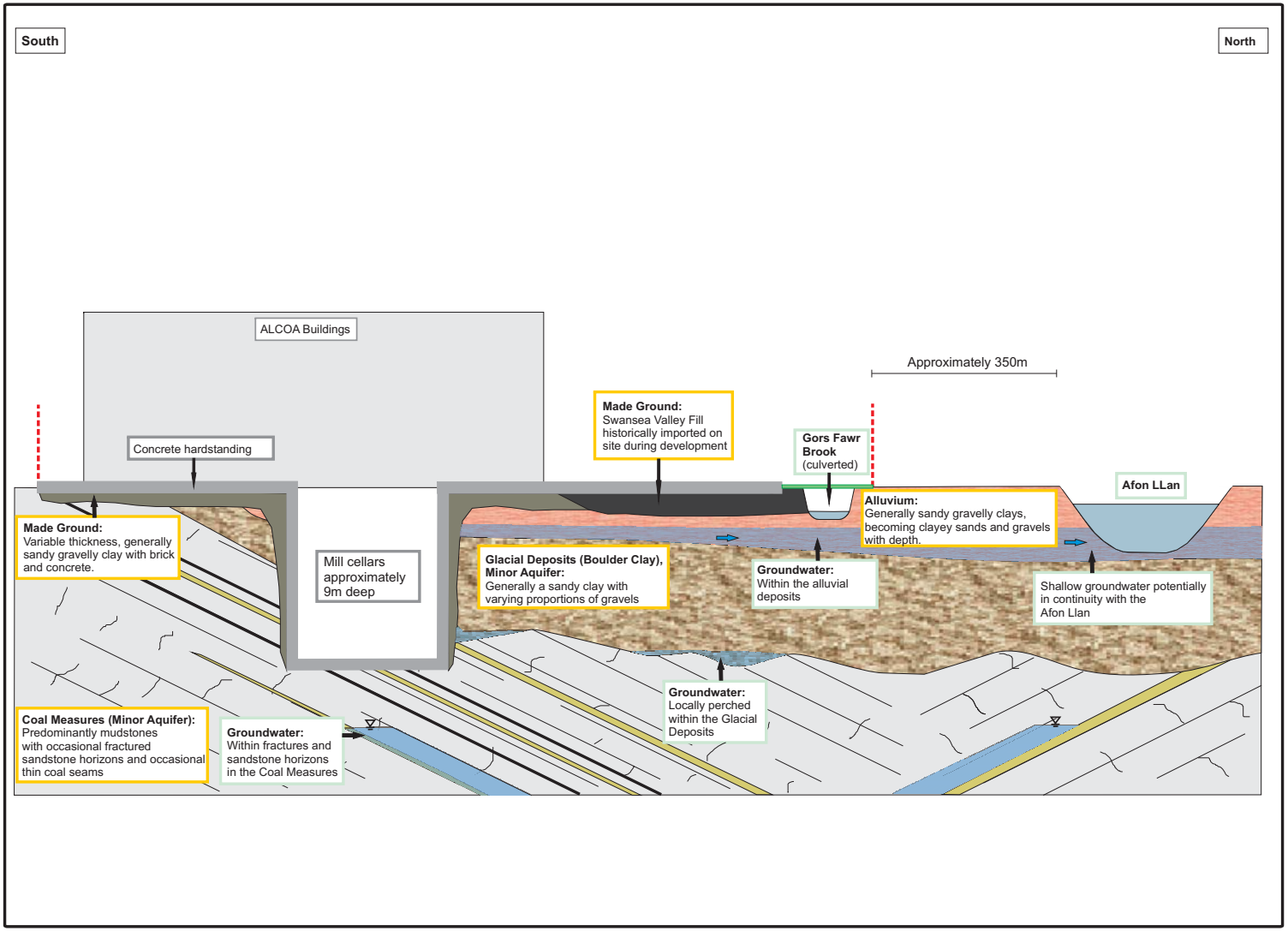
PPC Reference Data Sample Locations

Client: ALCOA

Scale: Refer to Scale Bar

Project No.: 64-C11647

Date: July 2007



Key

- Boundary of Installation
- Site Infrastructure
- Potential Receptor
- Geology

ENVIRON

Alcoa Mill Products, Swansea
Site Surrender Data

Figure A6

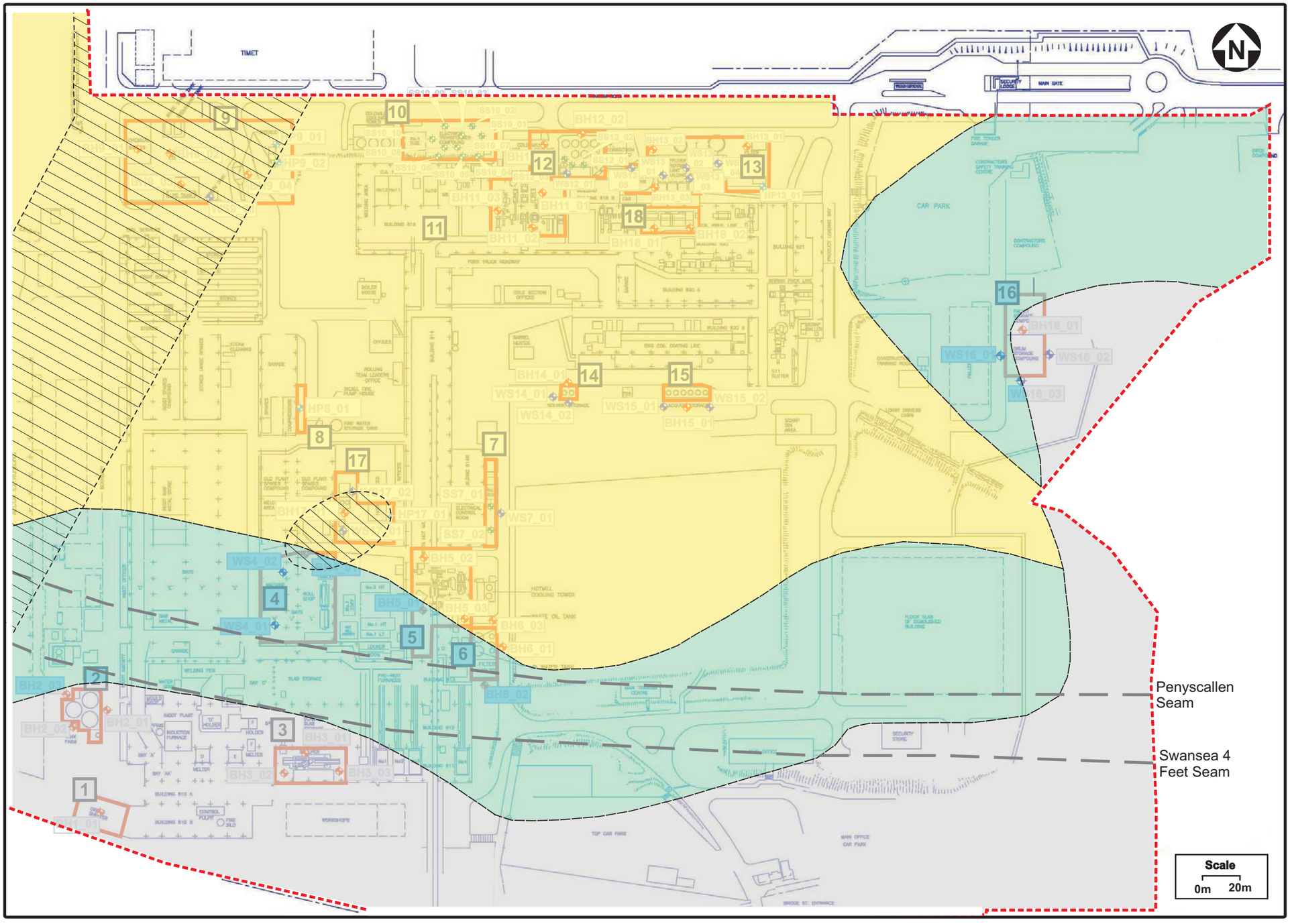
Refinement of
Conceptual Site Model

Client: ALCOA

Scale: NTS

Project No.: 64-C11647

Date: July 2007



Key

- ALCOA Site Boundary
- PPC Zone Boundaries
- Rotary Borehole
- Window Sample Borehole
- Surface Soil Sample
- Hand Excavated Trial Pit
- Alluvium
- Glacial Deposits (Boulder Clay)
- Coal Measures
- Approximate Extent of Swansea Valley Fill
- Extrapolated Coal Subcrop (BGS: SS 69 NW: Glamorgan)

ENVIRON

Alcoa Mill Products, Swansea Site Surrender Data

Figure A7

Simplified Geological Map of the Installation

Client: ALCOA

Scale: Refer to Scale Bar

Project No.: 64-C11647

Date: July 2007

NOTE: Figure excludes Made Ground materials which are present across the majority of the site.

APPENDIX B: SITE SURRENDER DATA

B1: Exploratory Logs

B2: Land Gas monitoring Results

B3: Rest Groundwater Level Tables

B4: Zoned Results of Chemical Analysis of Soil Samples

B5: Zoned Results of Chemical Analysis of Groundwater Results

B1: Exploratory Logs

Project No: 64C11647 ***Borehole: BH1_01***

Client: Alcoa ***Date:*** 05/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

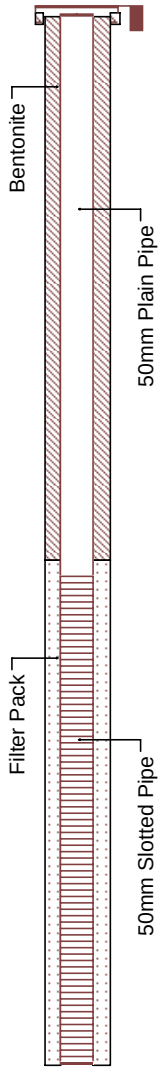
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Rough concrete	-0.4	0.5-1.0
1.0	**MADE GROUND** Recovered as dry friable dark grey SILT with strong ammonia odour.	-1.0	
	MADE GROUND Obstruction at 1.0m bgl - very hard grinding sand.	-1.5	1.5-2.0
2.0	**COAL MEASURES** Mudstone with faint ammonia odour .	-2.0	
3.0	**NO RECOVERY**	-2.5	2.5-3.0
	COAL MEASURES Recovered as very fine fragments of dry mudstone.	-3.0	
4.0	**COAL MEASURES** Dry mudstone with thin sandstone horizons.		
5.0			
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			
12.0			
13.0	13 m bgl	-13.0	
14.0			

Groundwater Data

RWL 0.785m bgl

Well Installation



Remarks: Borehole terminated at 13m bgl.
No groundwater strike encountered.
RWL of 0.785m bgl on 16.03.07.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH2_01***

Client: ALCOA ***Date:*** 6th March 2007

Location: Waunarlwydd ***Plant Used:*** Berretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0	0.6	GW Strike - 2m bgl; RWL 1.18m bgl	Bentonite; 50mm Plain Pipe; 50mm Slotted Pipe; Filter Pack
	Made Ground Concrete.	-0.2			
	Made Ground Gravel (sub-base).	-0.7			
1.0	**Weathered Coal Measures** Orange brown sandy SILT with grey mottled appearance.	-1.5			
2.0	**Weathered Coal Measures** Orange brown sandy SILTwith grey mottled appearance and occasional fragments of sandstone, becoming more frequent with depth.				
3.0	**Coal Measures** Recovered as angular gravel size fragments of weathered orange brown SANDSTONE, interpretted as Coal Measures.				
4.0		-4.5			
	Coal Measures Recovered as friable fine fragments of weak dark grey MUDSTONE.	-5.0			
5.0	5 m bgl				
6.0					
7.0					
8.0					
9.0					
10.0					

Remarks:

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH2_02***

Client: Alcoa ***Date:*** 06/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Concrete	-0.3	
	MADE GROUND Moist grey brown firm sandy CLAY with a little fine to medium sub-base gravel.	-0.8 / -1.0	0.5-1.0
1.0	**WEATHERED COAL MEASURES** Firm stiff dark grey thinly laminated CLAY, locally orange brown discoloration.	-2.0	1.5-2.0
2.0	**WEATHERED COAL MEASURES** Recovered as rounded fragments of grey brown CLAY in a silty matrix - dry weathered mudstone.		2.5-3.0
	WEATHERED COAL MEASURES Recovered as friable brown SILT with fragments of fine to medium sub-rounded and sub-angular sandstone and weak dark grey mudstone.	-4.0	
4.0	**COAL MEASURES** Recovered as a dark grey friable silty matrix with some fine to medium angular fragments of strong dark grey very fine grained mudstone.	-5.0	
5.0	**COAL MEASURES** A little paler grey with fine to medium weak fragments of mudstone. Becoming a little sandy at 6.5m bgl.	-6.5	
6.0	6.5 m bgl		
7.0			
8.0			
9.0			
10.0			

Groundwater Data: RWL 1.26m bgl

Well Installation: Bentonite; 50mm Plain Pipe; Filter Pack; 50mm Slotted Pipe

Remarks: Borehole drilled with auger and terminated at 6.5m bgl.
0.8m of water at base after 20 minutes standing.
RWL of 1.26m bgl on 16.03.07.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH2_03***

Client: ALCOA ***Date:*** 6th March 2007

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete.	-0.2			
1.0		**Made Ground** Brown CLAY with quatzite fragments.	-1.2	0.6		
2.0		**Weathered Coal Measures** Grey clayey SAND with occasional fine to medium gravel size fragments of weathered sandstone. Slight sweet hydrocarbon odour. Groundwater Strike with hydrocarbon and odour at 2.5m bgl.		2.5	RWL 3.23m bgl GW Strike - 2.5m bgl	Bentonite Filter Pack 50mm Plain Pipe 50mm Slotted Pipe
3.0						
4.0			-4.0	3.5 - 4.0		
		4 m bgl				
5.0						
6.0						
7.0						
8.0						
9.0						
10.0						

Remarks: Solid stem auger to 4.0mbgl.
Moderate to strong hydrocarbon odour.
Sheen on groundwater.
Groundwater encountered at 2.5m bgl
RWL of 3.23m bgl on 16.03.07

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH3_01***

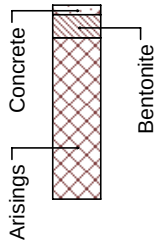
Client: Alcoa ***Date:*** 19/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete	-0.4			
1.0		**Made Ground** Sand and gravel sub-base	-1.5			
		Made Ground Concrete	-1.7			
2.0		1.7 m bgl				
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						
9.0						
10.0						



Remarks: Solid stem auger to 1.7m bgl. No groundwater encountered.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH3_02***

Client: Alcoa ***Date:*** 16/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

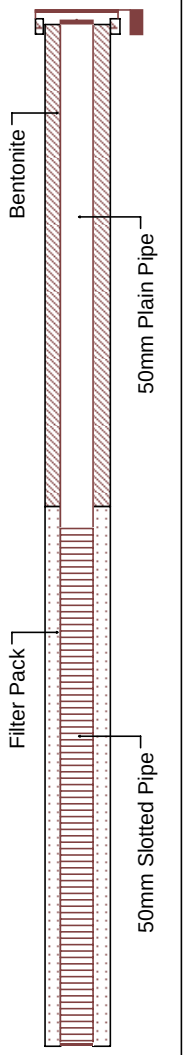
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.4	0.5
1.0	**Made Ground** Fragmented coal seam with piece of metal strip recovered at 0.7m and occasional pockets of soft brown clay, and small sandstone and concrete fragments.	-1.0	
2.0	**Coal Measures** Weathered MUDSTONE. Recovered as very soft and unconsoildated mudstone with occasional fragments of clayey mudstone.		3.0
3.0			
4.0			
		-4.6	
5.0	**Coal** COAL recovered as black dust with occasional fragments of black bituminous coal.		
		-5.5	
6.0	**Coal Measures** MUDSTONE- Recoverd as grey dust with occasional fragments of grey mudstone.		
	Coal Black bituminous COAL recovered as grey dust.		
7.0	**Coal Measures** Fine grained grey MUDSTONE- with occasional thin bands of sandstone recovered as fragments. Soft and dry as drilled.		
8.0			
9.0			
		-10.0	
10.0	10 m bgl		
11.0			

Groundwater Data

RWL 1.54m bgl

Well Installation



Remarks: Solid stem auger to 3.0m bgl. ODEX from 3.0mbgl to 10.0m bgl.
No groundwater encountered.
RWL 1.54m bgl on 01.06.07.

Checked by:

Project No: 64C11647 ***Borehole: BH3_03***

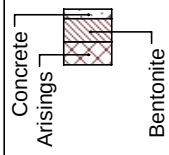
Client: Alcoa ***Date:*** 16/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete	-0.3			
			-0.5			
		Made Ground Soft brown sandy gravel sub-base with occasional brick and concrete fragments.				
1.0		**Terminated at 0.5m** Concrete obstruction				
		0.5 m bgl				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						
9.0						
10.0						



Remarks: Solid stem auger to 0.5m. BH Terminated at 0.5m bgl.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH3_03***

Client: Alcoa ***Date:*** 24/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete	-0.3			
1.0		**Coal Measures** Weathered soft pale grey MUDSTONE. Becoming darker with depth.			RWL 1.55m bgl	
2.0						
3.0						
4.0						
5.0			-5.7			
6.0		5.7 m bgl				
7.0						
8.0						
9.0						
10.0						

Remarks: Groundwater encountered at 6.0m bgl.
RWL of 1.55m bgl on 09.05.07

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH04_01***

Client: Alcoa ***Date:*** 03/05/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

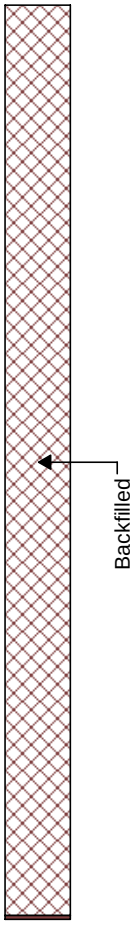
Datum: ***Logged by:*** ES

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Concrete	-0.4	
1.0	**MADE GROUND** Black ash and sand with frequent small angular gravel and fine red brick fragments	-2.0	1.0
2.0	**NO RETURNS** No returns	-2.5	2.5
	MADE GROUND Black, ashy, coarse sand and gravel	-3.0	3.0
3.0	**GLACIAL DEPOSITS ?** Grey, medium, gravelly SAND	-4.0	4.0
4.0	**GLACIAL DEPOSITS ?** Mid-brown clayey SAND with frequent gravels	-5.0	5.0
5.0	**GLACIAL DEPOSITS ?** Moist silty SAND matrix with fragments of sandstone gravel.	-7.0	
6.0			
7.0	**GLACIAL DEPOSITS ?** Recovered as a moist brown sandy SILT matrix with fragments of sandstone and quartzite.	-8.0	
8.0	8 m bgl		
9.0			
10.0			

Groundwater Data

Well Installation



Remarks: No groundwater strike encountered.
Borehole left open for Alcoa to investigate further and backfill.

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH4_01?***

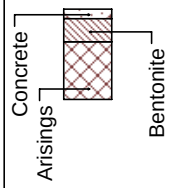
Client: Alcoa ***Date:*** 15/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete	-0.3			
		Made Ground Sub-base- dark brown clay with rounded flint gravels.	-0.8			
1.0		**Terminated at 0.8m** Concrete obstruction.				
		0.8 m bgl				
2.0						
3.0						
4.0						
5.0						
6.0						
7.0						
8.0						
9.0						
10.0						



Remarks: Solid stem auger to 0.8m

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS04_01***

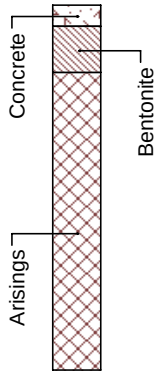
Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier Rig

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete.	-0.4	0.4 - 0.6		
1.0		**GLACIAL DEPOSITS** Stiff brown mottled orange brown sandy gravelly CLAY. Locally, poorly, thinly laminated. Gravel is predominantly medium Sandstone with occasional cobble size fragments of sandstone. Becoming slightly friable but stiff/very stiff below 1.0m.	-1.6	1.3		
2.0		1.6 m bgl				
3.0						
4.0						
5.0						



Remarks: 1.6m Refusal

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS4_02***

Client: Alcoa ***Date:*** 18/04/07

Location: Swansea ***Plant Used:*** Terrier Rig

Datum: ***Logged by:*** JE

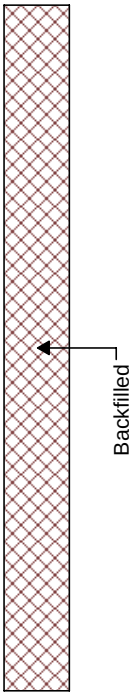
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)
0.0	Ground Surface	0.0
	Made Ground Concrete	-0.2
	Silty Clay Orange-green silty CLAY with occasional sandstone and mudstone pebbles.	-0.5
1.0	**Clay** Green-grey CLAY with occasional mudstone and sandstone pebbles. Small fragments of coal and sandstone cobble at 1.1m bgl.	-1.2
	Clay Firm green CLAY with slight black staining and strong organic odour.	-1.6
	Silty Clay Soft green silty CLAY with occasional angular sandstone gravels. Some grey pockets of CLAY.	-2.0
2.0	**Clay** Firm green CLAY with occasional fragments of mudstone and sandstone.	-2.4
	Clay Dense firm green CLAY with occasional fragments of mudstone, sandstone and coal fragments	-2.9
	Mudstone Grey weathered mudstone.	-3.0
3.0	3 m bgl	
4.0		
5.0		

Sample Depth (m bgl)

Groundwater Data

Well Installation



Remarks: Groundwater was not encountered

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH5_01***

Client: Alcoa ***Date:*** 14/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

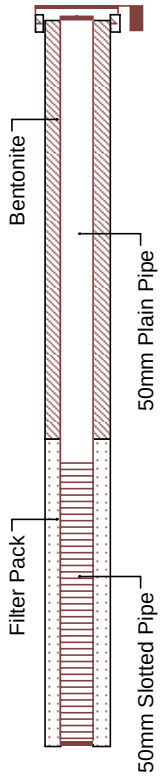
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
	Ground Surface	0.0	
0.0	**Made Ground** Soft brown clay with fragments of concrete (<60mm), flint gravel (<50mm) and sandstone pebbles (<25mm) and wood fragments. A solvent odour was noted throughout.	-0.5	0.5
1.0	**Made Ground** Soft brown clay with ccassional flint gravels and sandstone fragments.	-1.0	1.0
2.0	**Made Ground** Soft brown silty clay with occassional sandstone pebbles with much gravel encountered between 3.0m and 5.0m bgl.		2.0
3.0			
4.0			4.0
5.0	**Made Ground** Angular gravels of sandstone, mudstone with occasional flint, ranging in size from 1.0mm to 40mm. Saturated at 6.0m.	-5.0	
6.0	**Made Ground** Silty water recovered with occasional gravel fragments. Grinding at 6.5m on large boulder.	-6.0	
	Terminated at 6.5m bgl.	-6.5	
7.0	6.5 m bgl		
8.0			
9.0			
10.0			

Groundwater Data

RWL 1.4m bgl

GW Strike - 6.0m bgl

Well Installation



Remarks: Solid stem to 4.0m bgl. ODEX from 4.0m bgl - 6.5m bgl.
GW encountered at 6.0m bgl
RWL of 1.4m bgl on 21.03.07

Checked by:

Project No: 64C11647 ***Borehole: BH5_02***

Client: Alcoa ***Date:*** 15/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

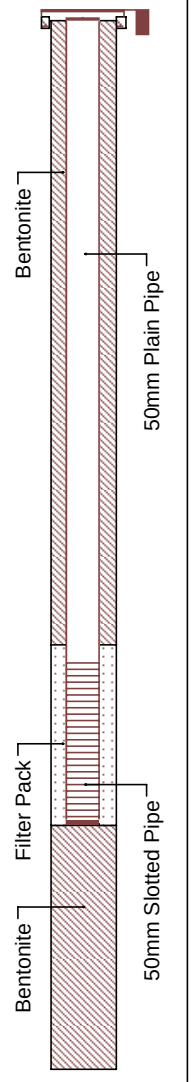
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.3	
1.0	**Made Ground** Gravel and soft brown clay with occasional fragments of brick.	-1.0	1.0
2.0	**Made Ground** Brown clay with occasional fine angular gravels of sandstone. Saturated at 3.5m and becomes dry at 3.5m		2.0
3.0			
4.0			
5.0		-5.0	
	Boulder Clay Soft brown silty CLAY with occasional fine sandstone and mudstone gravels. Damp throughout but not saturated.		
6.0			
7.0			
8.0		-8.0	
	Coal Measures Brown sand. Fine to medium grained with occasional fragments of coal and becomes slightly silty towards base.		
9.0		-9.5	
	Coal Measures Saturated clay with occasional sandstone fragments.	-10.0	
10.0	**Coal Measures** Mudstone-recovered as fragments of fine grained soft grey/red mudstone. Easily fragmented and appears clayey and weathered.	-11.0	
11.0	**Coal Measures** Sandstone-recovered as fragments of fine grey sandstone. Soft saturated layer at 12.0m bgl becoming harder from 12.5m bgl.		
12.0			
13.0		-13.0	
	13 m bgl		
14.0			

Groundwater Data

GW Strike - 8.0m bgl

RWL 3.07

Well Installation



Remarks: Solid stem auger to 2.5m bgl. ODEX from 2.5m bgl to 13.0m bgl.
Groundwater encounteredat 8.0m bgl.
RWL of 3.07m bgl on 21.03.07

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH5_03***

Client: Alcoa ***Date:*** 16/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

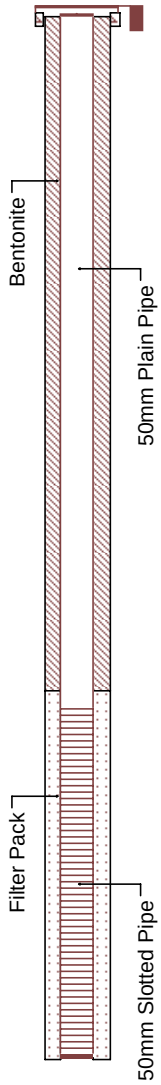
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.3	0.5
1.0	**Made Ground** Gravel sub-base.		1.5
	Alluvium SANDY GRAVELS- soft grey sand and angular coarse sandstone and mudstone gravel. Slight diesel odour becomes stronger with depth. Strong odour between 1.6-2.0m. Saturated at 3.0m.		
2.0		-3.0	
3.0	**Alluvium** SANDY CLAY- firm green alluvial clay with orange sandy patches and a mild diesel odour.	-3.3	3.2
4.0	**Coal Measures** SANDSTONE-recovered as fine grain grey sandstone fragments. Appears slightly weathered and dry.	-4.3	
5.0	**Coal Measures** SILTSTONE- recovered as fragments of fine grain grey, slightly fissile, siltstone. Dry to base with occasional thin bands of softer fine grained sandstone.		
6.0			
7.0			
8.0			
9.0			
10.0			
11.0			
12.0		-12.0	
	12 m bgl		
13.0			

Groundwater Data

RWL 1.4m bgl

Well Installation



Remarks: Solid stem auger to 3.3m bgl and ODEX from 3.3m bgl to 12.0m bgl.
Groundwater not encountered during drilling.
RWL of 1.4m bgl on 19.3.07.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH06_01***

Client: Alcoa ***Date:*** 18/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:***

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	MADE GROUND Asphalt	-0.3			
	MADE GROUND Grey, moist, sand and angular gravels. Strong hydrocarbon odour noted.	-1.0	0.5		
1.0	**MADE GROUND** Mid brown, firm, sandy, friable clay with frequent angular gravels		1.0		Backfilled
2.0					
3.0					
4.0					
5.0					
6.0					
7.0					
8.0					
9.0					
10.0					

Remarks: Refusal at 1.2 m - concrete. No groundwater encountered.

Checked by: JC

Project No: 64C11647 ***Borehole: BH06_02***

Client: Alcoa ***Date:*** 18/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** ES

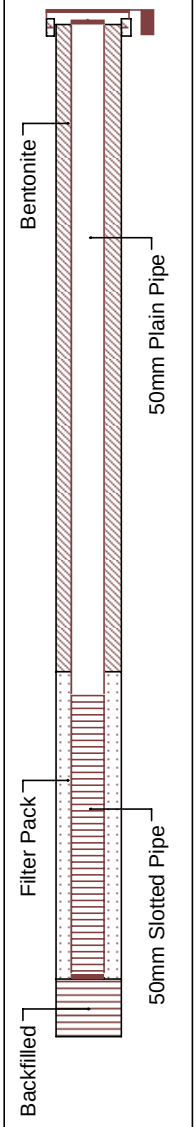
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Asphalt	-0.5	0.5
	MADE GROUND Grey limestone chippings	-1.0	1.0
	MADE GROUND Mid-brown, medium SAND with frequent sub-rounded gravel		
2.0	**GLACIAL DEPOSITS** Mid-brown, firm, friable CLAY with frequent sub-rounded gravels	-2.5	2.0
	GLACIAL DEPOSITS Coarse, angular GRAVEL in a firm clayey matrix	-3.0	3.0
3.0	**GLACIAL DEPOSITS** Grey/brown firm/stiff friable CLAY with frequent fine gravel		
6.0	**COAL MEASURES** Grey, stiff WEATHERED MUDSTONE	-6.0	6.0
9.0	9 m bgl	-9.0	9.0
10.0			

Groundwater Data

RWL 1.35m bgl

Well Installation



Remarks: Borehole backfilled to 8.5m.
No groundwater strike encountered during drilling.
RWL of 1.35m bgl

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH06_03***

Client: Alcoa ***Date:*** 19/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** ES

SUBSURFACE PROFILE

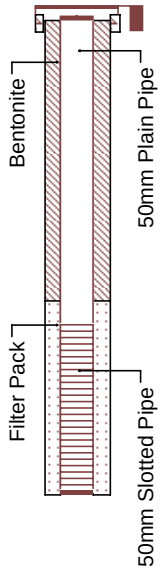
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Asphalt	-0.3	
	MADE GROUND Dark grey, firm, friable, slightly sandy clay with frequent gravels and angular sandstone fragments. Slight hydrocarbon odour noted.	-1.0	0.5
1.0	**GLACIAL DEPOSITS** Dark brown, firm, friable CLAY with frequent gravels. Becoming less friable with depth.		1.0
2.0			2.0
3.0			3.0
4.0		-4.0	4.0
	GLACIAL DEPOSITS Dark grey, moist, soft SILTY CLAY with frequent small, angular gravels. Becoming lighter grey in colour with depth		4.3
5.0			
6.0			
7.0			
8.0			
9.0			
10.0			

Groundwater Data

RWL 0.45m bgl

GW Strike - 4.0m bgl.

Well Installation



Remarks: BH terminated at 4.3m bgl.
Groundwater encountered at 4.0m bgl.
RWL of 0.45m bgl on 03.05.07

Checked by: JC

Sheet: 1 of 1

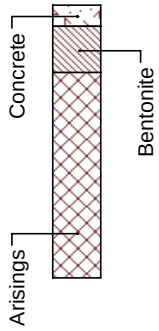
Project No: 64C11647 ***Window Sample: WS07_01***

Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0	0.5		
		MADE GROUND Concrete.	-0.1			
		MADE GROUND Recovered as wet silty sandy fine to coarse angular GRAVEL.	-0.6			
1.0		**MADE GROUND** Recovered as black limestone gravels and cobbles.	-1.2			
		1.2 m bgl				
2.0						
3.0						
4.0						
5.0						

Remarks: WS terminated at 1.2m bgl due to refusal.

Checked by:

Project No: 64C11647 ***Hand Pit: HP8_01***

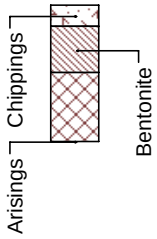
Client: Alcoa ***Date:*** 09/03/07

Location: Waunarlwydd ***Plant Used:*** Hand-dug

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Black stained chippings and dead vegetation		0.05 - 0.15		
		MADE GROUND Chippings with a little yellow brown silty matrix. Oily water in hole and green residue on chippings just below the surface. Becoming grey below 0.2m. Becoming sandy gravelly clayey below 0.3m with cobble sized fragments of slag.	-0.6	0.3 - 0.5		
1.0		0.6 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Hand pit terminated at 0.6m - water seapage and collapse.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH9_01***

Client: ALCOA ***Date:*** 8th March 2007

Location: Waunarlwydd ***Plant Used:*** Berretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

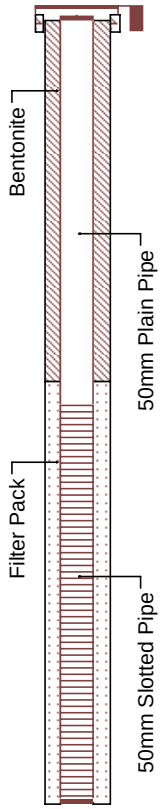
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.2	
	Made Ground Dense grey gravel with frequent fine brick fragments and occasional fragments of concrete.		1.0
2.0		-2.1	2.0
	Alluvium Firm dark brown black silty CLAY with frequent fibrous natural organic matter and organic odour.	-2.3	2.2
3.0	**Alluvium** Light brown silty CLAY with a little black organic material. Slight natural organic odour.		3.0
4.0		-4.5	4.3 - 4.5
5.0	**Glacial Deposits** Brown clayey fine to medium sub angular GRAVEL and brown clayey SAND.		
6.0			
7.0		-7.0	
	7 m bgl		
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 4.8m bgl

RWL 2.63m bgl

Well Installation



Remarks: Solid stem auger to 7.0m bgl.
Groundwater encountered at 4.8m bgl.
RWL of 2.63m bgl 06.03.07

Checked by: JC

Project No: 64C11647 ***Borehole: BH9_02***

Client: ALCOA ***Date:*** 7th March 2007

Location: Waunarlwydd ***Plant Used:*** Berretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

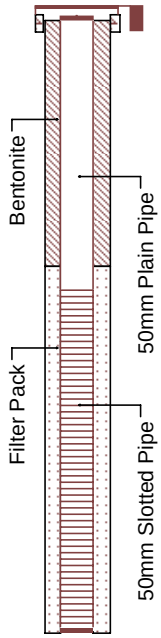
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.2	
	Made Ground Dense grey GRAVEL with cobbles below 0.5m bgl and occasional fine brick fragments. Brick becoming more frequent below 1.6m.		0.6
1.0		-1.8	
	Alluvium Dark brown/ black silty CLAY with frequent fibrous organic matter and a natural organic odour.	-2.2	
2.0	**Alluvium** Light brown mottled orange silty CLAY with occasional black organic material and a faint natural organic odour.	-3.0	
3.0	**Alluvium** Brown CLAY wiith occasional black organic material.		3.5 - 3.8
4.0		-4.3	
	GLACIAL DEPOSITS Brown clayey fine to medium subangular GRAVEL and SAND.		
5.0		-5.5	
	5.5 m bgl		
6.0			
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 4.5m bgl.

RWL 2.21m bgl

Well Installation



Remarks: Solid stem auger to 0.8m bgl and ODEX from 0.8m bgl to 5.5m bgl.
Groundwater encountered at 4.5m bgl.
RWL of 2.21m bgl on 06.03.07.

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH9_03***

Client: ALCOA ***Date:*** 7th March 2007

Location: Waunarlwydd ***Plant Used:*** Berretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	Made Ground Dense grey GRAVEL with occasional fine brick fragments	-2.5	0.8 - 1.2	GW Strike - 2.5m bgl RWL 2.3m bgl	Bentonite 50mm Plain Pipe Filter Pack 50mm Slotted Pipe
2.0	**Alluvium** Firm dark brown/ black silty CLAY with frequent organic matter and natural organic odour.	-2.8			
3.0	**Alluvium** Firm light brown silty CLAY with occasional black organic material. Slight natural organic odour.	-4.2	3.0		
4.0	**Glacial Deposits** Brown clayey fine to medium subangular GRAVEL and SAND.	-5.5			
5.0	5.5 m bgl				
6.0					
7.0					
8.0					
9.0					
10.0					

Remarks: Groundwater encountered at 2.5m bgl
RWL of 2.3m bgl on 16.03.07

Checked by: JC

Project No: 64C11647 ***Borehole: BH9_04***

Client: ALCOA ***Date:*** 8th March 2007

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

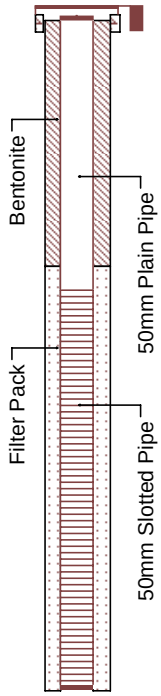
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Tarmac	-0.2	
	Made Ground Concrete		
1.0	**Made Ground** Dense grey GRAVEL with cobbles at 0.5m bgl and occasional fine brick fragments becoming more frequent below 1.6m bgl.	-1.8	0.8 - 1.0
2.0	**Alluvium** Dark brown/ black silty CLAY with frequent fine organic material. Natural organic odour.	-2.5	2.0 - 2.5
	Alluvium Dark brown/ black silty CLAY	-3.0	
3.0	**Alluvium** Light brown/ orange silty CLAY with occasional black organic material. Slight natural organic odour.	-4.0	3.0
4.0	**Glacial Deposits** Brown clayey gravelly SAND. Gravel is fine to medium subangular sandstone.	-6.0	
6.0	6 m bgl		
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 4.2m bgl.

RWL 2.63m bgl

Well Installation



Remarks:

Groundwater encountered at 4.2m bgl.
RWL at 2.63m bgl on 19.03.07.

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS9_01***

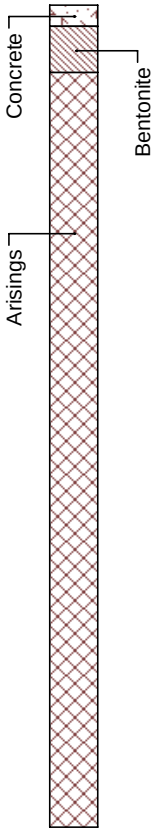
Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	MADE GROUND Concrete	-0.3			
	MADE GROUND Firm grey mottled orange brown sandy gravelly CLAY. Gravels are fine to medium. Moderate, sweet, possible hydrocarbon odour.	-0.5	0.3 - 0.4		
1.0	**MADE GROUND** Firm slightly sandy slighty gravelly grey mottled olive CLAY. Occasional silty black lenses and occasional sandstone cobbles and medium brick fragments. Moderate organic odour. Becoming moist with occasional lenses of fine coal below 1.5m. Becoming firm/stiff below 2.5m with occasional clinker.		1.5 - 1.6		
2.0					
3.0		-3.2			
	ALLUVIUM Firm friable dark brown slightly sandy SILT with a spongy texture and organic odour.	-3.3	3.2 - 3.3		
	ALLUVIUM Soft-firm grey mottled orange brown very thinly laminated slightly sandy CLAY.	-3.6			
4.0	3.6 m bgl				
5.0					



Remarks: Window sample terminated at 3.6m bgl.
No groundwater encountered.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Hand Pit: HP9_01***

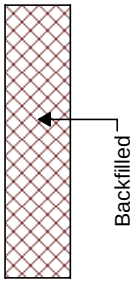
Client: Alcoa ***Date:*** 09/03/07

Location: Waunarlwydd ***Plant Used:*** Hand-dug

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Grass over brown sandy CLAY topsoil	-0.1			
		MADE GROUND Dark brown sandy gravelly CLAY with occasional brick, concrete and sandstone cobbles. Occasional medium slag at 0.5-0.6m (adjacent to wall of interceptor).				
1.0			-1.0			
		MADE GROUND Masonary walls of interceptor	-1.2			
		1.2 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Hand pit terminated at 1.2m.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Hand Pit: HP9_02***

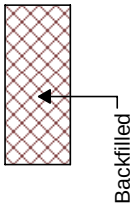
Client: Alcoa ***Date:*** 09/03/07

Location: Waunarlwydd ***Plant Used:*** Hand-dug

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Black stained SILT and CLAY overlying orange brown gravelly SAND, with fragments of material, plastic bags and occasional fragments of slag.	-0.1			
		MADE GROUND Ashy layer.	-0.7			
1.0		**MADE GROUND** Brown sandy SILT and CLAY. Faint unidentifiable odour between 0.4-0.5m bgl. Metal pin below 0.6m. Frequent fragments of coal and occasional lenses of black oil.				
		0.7 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Hand pit terminated at 0.7m.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH11_01***

Client: Alcoa ***Date:*** 13/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Concrete	-0.5	
1.0	**MADE GROUND** Dark grey brown silty sandy medium to coarse subangular limestone and sandstone GRAVEL sub-base. Becoming siltier with depth.	-1.5	1.5-2.0
2.0	**MADE GROUND** Recovered as fine to medium subangular fragments of mudstone with occasional sandstone and rare fine brick.		
3.0			
4.0		-4.5	
4.5			4.5-5.0
5.0	**ALLUVIUM?** Recovered as orange-brown to brown slightly sandy SILT/CLAY .	-5.5	
	COAL MEASURES Recovered as fine to medium fragments of strong sandstone and occasional mudstone in a silty matrix. Possible faint hydrocarbon odour.	-6.0	
6.0			
7.0	**COAL MEASURES** Recovered as dust and fragments of dry weak MUDSTONE.		
8.0		-8.5	
	COAL MEASURES Recovered as fragments of fine grained SANDSTONE.		
9.0			
10.0			
11.0		-11.0	
	11 m bgl		
12.0			

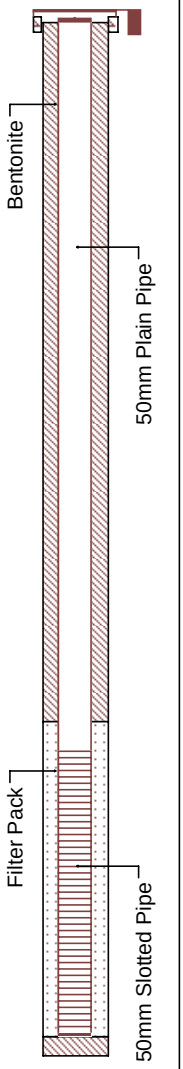
Groundwater Data

GW Strike - 4.5-5.5m bgl.

RWL 3.93m bgl

GW Strike - 10.7m bgl.

Well Installation



Remarks: Borehole terminated at 11.0m bgl.
Groundwater encountered at 4.5 - 5.5m bgl and 10.7m bgl.
RWL at 3.93m bgl on 19.03.07.

Checked by:

Project No: 64C11647 ***Borehole: BH11_02***

Client: Alcoa ***Date:*** 13/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

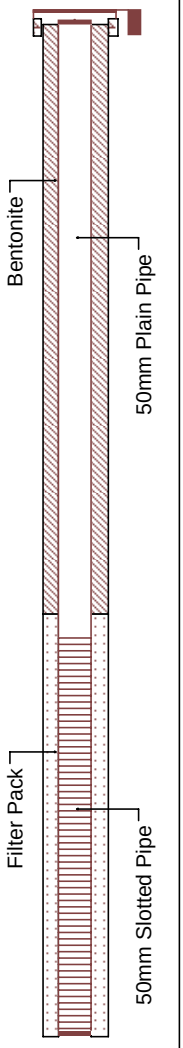
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.4	
1.0	**Made Ground** Clay with frequent flint, sandstone and mudstone gravels (up to 50mm). Small fragments of concrete recovered between 1.0m and 2.0m bgl.		1.0
2.0			2.0
		-2.9	
3.0	**Made Ground** Recovered as soft silty brown clay with occasional cream/orange sandy pockets that becomes less silty from 4.0m. Appears disturbed.		3.0
4.0			4.0
5.0		-5.3	5.0
	Coal Measures Recovered as fine grey dust with occasional fragments of grey mudstone. .	-6.0	
6.0	**Coal Measures** Recovered as hard grey fragments of fine grained mudstone.		
7.0			
8.0			
		-9.0	
9.0	9 m bgl		
10.0			

Groundwater Data

RWL 4.48m bgl

GW Strike - 7.0m bgl.

Well Installation



Remarks: Solid stem auger to 5.3m bgl. ODEX from 5.3m bgl to 9.0m bgl.
Groundwater encountered at 7.0m bgl.
RWL of 4.48m bgl on 19.03.07.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH11_03***

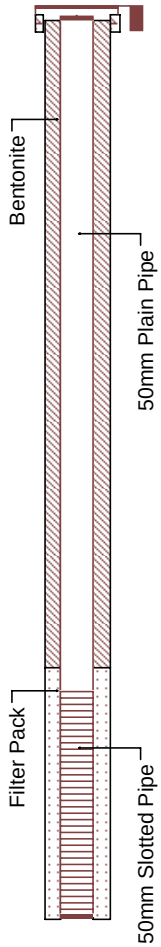
Client: Alcoa ***Date:*** 14/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.5			
1.0		**MADE GROUND** Dark grey silty sandy medium to coarse angular limestone and sandstone GRAVEL - sub base		1.5-2.5		
2.0						
3.0						
4.0			-4.0	4.0-5.0		
		ALLUVIUM Recovered as 'blobs' of firm green brown slightly sandy CLAY. Becoming orange-brown with depth.			RWL 4.54m bgl	
5.0						
6.0						
7.0			-7.0		GW Strike - 7.0 - 8.0m bgl.	
		COAL MEASURES Recovered as gravel size fragments of strong grey fine to medium grained sandstone - water strike.				
8.0			-8.0			
		8 m bgl				
9.0						
10.0						



Remarks: Solid stem auger to 3.0m and ODEX to 8.0m bgl.
Groundwater encountered between 7.0 - 8.0 m bgl.
RWL at 4.54m bgl on 19.03.07.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH11_04***

Client: Alcoa ***Date:*** 14/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.5			
		MADE GROUND Sub-base	-0.8			
		0.75 m bgl				
1.0						
2.0						
3.0						
4.0						
5.0						

Backfilled

Remarks: Refused on a 2nd concrete surface - possibly basement / electricity control room roof.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH12_01***

Client: Alcoa ***Date:*** 25/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** LC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete				
		MADE GROUND Dark brown black slightly sandy slightly clayey angular to sub-angular fine to coarse GRAVEL. Very little recovery from 2.0-4.2m		1.0 2.0	GW Strike - 3.0m bgl RWL 1.46m bgl	Bentonite Filter Pack 50mm Plain Pipe 50mm Slotted Pipe
4.0			-4.2			
		POSSIBLE MADE GROUND Grey brown slightly sandy slightly gravelly CLAY. Gravel is angular to sub rounded, fine to coarse sandstone.	-4.6	4.5		
5.0		4.6 m bgl				
6.0						
7.0						
8.0						
9.0						
10.0						

Remarks: BH terminated at 4.5m bgl.
Groundwater encountered at 3.0m bgl.
RWL of 1.46m bgl on 08.05.07

Checked by:

Project No: 64C11647 ***Borehole: BH12_02***

Client: Alcoa ***Date:*** 08/05/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

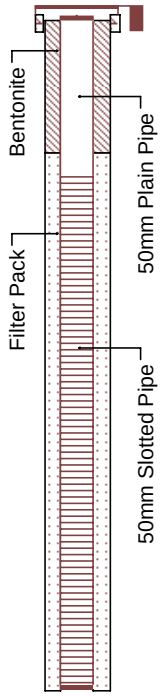
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Concrete	-0.3	
	MADE GROUND Limestone sub-base	-0.7	
1.0	**MADE GROUND** Recovered as dark grey damp orange gravel size fragments of limestone.	-1.3	1.3-1.5
	ALLUVIUM Recovered as firm green brown slightly sandy CLAY.	-2.0	1.5-2.0
2.0	**ALLUVIUM** Recovered as orange-brown sandy clayey fine to medium sub-angular GRAVEL	-3.0	
3.0	**ALLUVIUM** Recovered as clayey sandy fine to medium sub-rounded gravel. Becoming denser and more angular below 4.0m bgl suggesting larger cobbles. Layer of clayey sand at 5.7m bgl.		3.0
4.0			
5.0			
6.0		-6.0	
	6 m bgl		
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 2.5m bgl.

RWL 1.34m bgl

Well Installation



Remarks: Borehole terminated at 6.0m bgl.
Sheen on water from hole.
Groundwater encountered at 2.5m bgl.
RWL of 1.34m bgl on 8.03.07 and 1.12m bgl on 15.03.07

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS12_01***

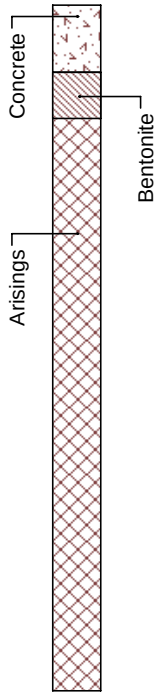
Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.3			
		MADE GROUND Grey, very silty sandy fine to coarse sub-angular sandstone GRAVEL with occasional cobbles.		0.5 1.5-1.6 2.8-3.0		
3.0		3 m bgl	-3.0			
4.0						
5.0						



Remarks: Window sample refused and terminated at 3.0m bgl.
No groundwater strike encountered.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH13_01***

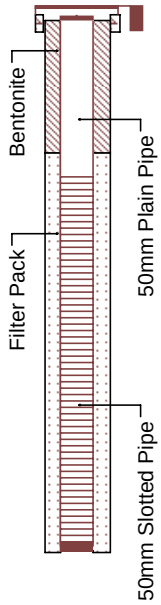
Client: ALCOA ***Date:*** 8th March 2007

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Concrete.	-0.2			
		Made Ground Grey/black sandy GRAVEL.	-0.7	0.5		
1.0		**Alluvium** Dark brown silty CLAY with sand lenses and frequent rootlets	-1.5	1.0		
		Alluvium Brown/grey CLAY with orange/grey sand and silt lenses.	-2.2	1.5		
2.0		**Alluvium** Brown sandy CLAY with a little to medium gravel.		2.0	GW Strike - 2.2m bgl	
3.0					RWL of 0.57m bgl on 19.03.07	
4.0			-4.8			
5.0		4.8 m bgl				
6.0						
7.0						
8.0						
9.0						
10.0						



Remarks: Solid stem auger to 4.8m bgl.
Groundwater encountered at 2.2m bgl.
RWL of 0.57m bgl on 19.03.07.

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH13_02***

Client: ALCOA ***Date:*** 8th March 2007

Location: Waunarlwydd ***Plant Used:*** Berretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

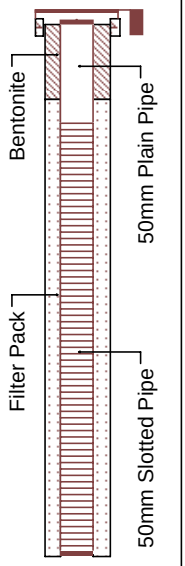
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete.	-0.3	
	Made Ground Grey SAND and GRAVEL with frequent concrete fragments.	-1.3	0.5 - 0.8
1.0	**Alluvium** Dark brown silty clay with frequent rootlets and small fragments of wood. Slight hydrocarbon odour.	-1.8	1.0 - 1.5
2.0	**Alluvium** Brown/grey CLAY with orange/grey sand and silt lenses. No apparent hydrocarbon odour.	-2.5	2.0
3.0	**Alluvium** Dark brown silty CLAY with occasional fine to medium gravel.		3.0 - 3.5
4.0		-4.8	
5.0	4.8 m bgl		
6.0			
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 1.6m bgl

RWL 0.5m bgl

Well Installation



Remarks: Solid stem auger to 4.2m bgl.
Groudwater encountered at 1.6m bgl.
RWL of 0.5m bgl on 19.03.07

Checked by: JC

Project No: 64C11647 ***Borehole: BH13_03***

Client: ALCOA ***Date:*** 8th March 2007

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** RB

SUBSURFACE PROFILE

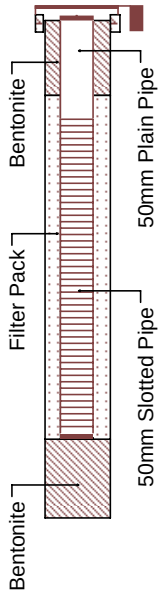
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Sandy clayey GRAVEL with black staining. Very faint hydrocarbon odour.	-0.5	0.5
1.0	**Made Ground** Dark brown/ black silty gravelly CLAY with occasional medium to coarse fragments of red roofing tile.	-1.5	
2.0	**Made Ground** Dark brown CLAY with frequent small lenses of angular gravel.	-2.5	
	Alluvium Brown gravelly CLAY. Gravel is fine to medium sandstone.		2.5
3.0			
4.0		-4.0	
	Weathered Coal Measures Recovered as angular fragments of weathered SANDSTONE	-4.2	
	Weathered Coal Measures Recovered as fragments of weak grey MUDSTONE	-4.5	
5.0	4.5 m bgl		
6.0			
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike 1.5m bgl

RWL 1.05m bgl

Well Installation



Remarks: Solid stem auger to 2.8m bgl, ODEX follow on to 4.5m bgl.
Bentonite seal placed at the bottom to 3.8m bgl.
Groundwater encountered at 1.5m bgl.
RWL of 1.05 on 19.03.07

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS13_01***

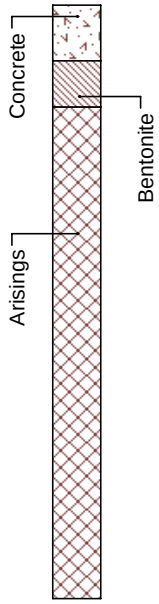
Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.3			
		MADE GROUND Red brown mottled grey brown very silty sandy GRAVEL of fine to coarse sandstone and sub-base. Moist and stained dark grey at 0.8-1.0m bgl with a moderate hydrocarbon odour.	-1.0			
1.0		**MADE GROUND** Wet dark grey silty sandy fine to coarse subangular GRAVEL. Becoming more clayey with black staining, sheen on water and a moderate hydrocarbon odour between 2.2-2.5m bgl.	-2.6			
2.0		2.6 m bgl				
3.0						
4.0						
5.0						



Remarks: Window sample terminated at 2.6m bgl.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS13_02***

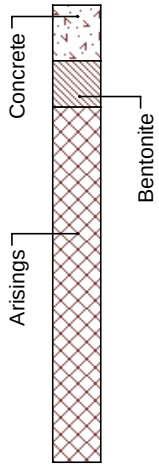
Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.3			
1.0		**MADE GROUND** Grey wet silty sandy fine to coarse angular GRAVEL. Black staining and strong unidentifiable odour below 1.8m bgl.	-2.0			
2.0		2 m bgl				
3.0						
4.0						
5.0						



Remarks: Window sample collapsing from 0.5m bgl and terminated at 2.0m bgl.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS13_03***

Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

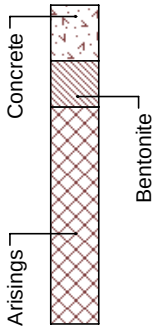
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)
0.0	Ground Surface	0.0
	MADE GROUND Concrete	-0.3
	MADE GROUND Grey brown silty sandy fine to coarse subangular limestone and sandstone GRAVEL. Becoming moist below 0.8m	-1.2
	ALLUVIUM Very stiff slightly friable grey moist orange to brown SILT and CLAY. Poorly and very thinly laminated texture.	-1.4
1.4	1.4 m bgl	
1.0		
2.0		
3.0		
4.0		
5.0		

Sample Depth (m bgl)

Groundwater Data

Well Installation



Remarks: Window sample refused and terminated at 1.4m bgl.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS13_04***

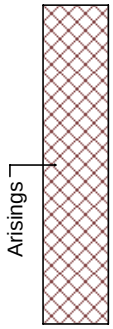
Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.3			
		MADE GROUND Grey wet sandy clayey fine to medium subangular limstone and sandstone GRAVEL. Becoming grey brown and predominantly fine to medium gravel below 0.8m.	-1.4			
1.0		1.4 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Window sample refused and terminated at 1.4m bgl.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS13_05***

Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

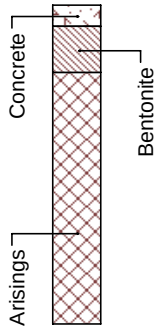
Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
	Ground Surface	0.0	
0.0	**MADE GROUND** Black staining on gravel chippings underlain by membrane.		
	MADE GROUND Black/grey/brown sandy very clayey fine to medium GRAVEL.		0.3
		-0.6	
	ALLUVIUM Firm dark brown slightly sandy SILT/CLAY with a moderate organic odour.	-0.7	
1.0	**ALLUVIUM** Firm grey mottled dark brown slightly sandy CLAY. Very thinly laminated texture. Becoming soft and sandy below 1.0m bgl.		1.2
		-1.4	
	1.4 m bgl		
2.0			
3.0			
4.0			
5.0			

Groundwater Data

Well Installation



Remarks: Window sample terminated at 1.4m bgl.
Collapsing from 0.3m - Water rising from made ground.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Hand Pit: HP13_01***

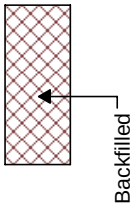
Client: Alcoa ***Date:*** 09/03/07

Location: Waunarlwydd ***Plant Used:*** Hand-dug

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Red brown silty sandy GRAVEL. Gravel is fine to coarse tabular angular mudstone. Faint unidentifiable odour between 0.2-0.4m. Becoming wetter at 0.5m with black/grey moisture. Moderate unidentifiable odour at 0.5m.	-0.6			
		ALLUVIUM Very stiff dark grey mottled brown slightly friable SILT and CLAY. Faint unidentifiable odour at 0.6m bgl.	-0.7			
1.0		0.7 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Hand pit terminated at 0.7m.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH14_01***

Client: Alcoa ***Date:*** 16/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** ES

SUBSURFACE PROFILE

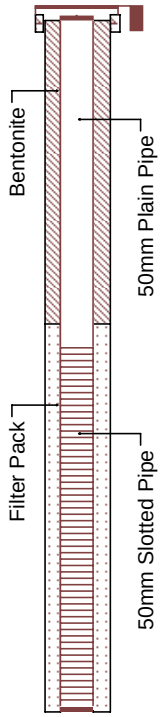
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Concrete	-0.3	
	MADE GROUND Grey/black, moist, sub-angular gravels with occasional angular pebbles. Slight sheen and strong hydrocarbon odour noted.	-1.0	0.5
1.0	**ALLUVIUM** Soft/firm grey friable, slightly sandy CLAY with frequent fine angular gravel, occasional black partings and fragments of organic matter. Faint hydrocarbon odour.		1.0
2.0			2.0
3.0			3.0
4.0		-4.0	4.0
	ALLUVIUM Very soft, damp. grey/brown sandy CLAY with frequent sub-angular gravel, pebbles and fragments of organic matter. Occasional pockets of dark red sandy CLAY. Faint hydrocarbon odour. Becoming more brown in colour with depth.		
5.0			5.0
6.0		-6.0	6.0
	ALLUVIUM Soft/firm grey/brown CLAY with frequent gravel.	-6.2	
	6.2 m bgl		
7.0			
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 3.0m bgl

RWL 1.32m bgl

Well Installation



Remarks: Groundwater encountered at 3.0m bgl.
RWL of 1.32m bgl on 03.05.07.

Checked by: JC

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS14_01***

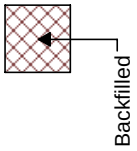
Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Chippings		0-0.2		
			-0.3			
		MADE GROUND Grey silty sandy fine to coarse subangular limestone GRAVEL. Faint hydrocarbon odour.				
		REFUSAL Refusal on large sandstone cobbles.				
1.0		0.3 m bgl				
2.0						
3.0						
4.0						
5.0						



Remarks: Window sample refused and terminated at 0.3m bgl.

Checked by:

Project No: 64C11647 ***Window Sample: WS14_02***

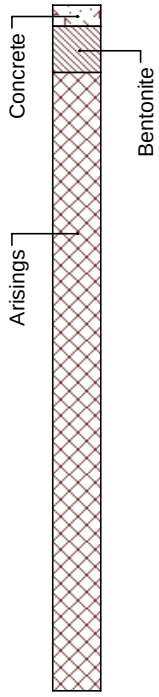
Client: Alcoa ***Date:*** 16/04/07

Location: Waunarlwydd ***Plant Used:*** Terrier Rig

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		Made Ground Gravel with crushed brick and slightly sandy clay matrix.	-0.4	0.4 - 0.6		
1.0		**Made Ground** Green-grey clay containing concrete cobbles >100mm, wood at 0.8m and rootlets in clay.	-1.2	1.0 - 1.2		
		Made Ground Firm brown clay with organic rootlets and wood at 1.3m.	-2.0			
2.0		**No recovery** Cobble of mudstone in base of window sample barrel.	-3.0	2.5 - 2.8		
3.0		3 m bgl				
4.0						
5.0						



Remarks:

Checked by:

Sheet: 1 of 1

Project No: 64C11647 **Borehole: BH15_01**

Client: Alcoa **Date:** 16/04/07

Location: Waunarlwydd **Plant Used:** Beretta T25

Datum: **Logged by:** ES

SUBSURFACE PROFILE

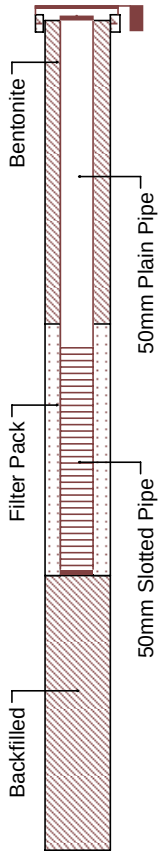
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	MADE GROUND Limestone hardcore coated in hardened white lacquer	-0.4	0.1
	MADE GROUND Red bricks and grey coarse sand, gravel and metal fragments	-1.0	0.5
1.0	**MADE GROUND** Very soft, mois, blackt sandy CLAY with frequent angular gravel and pebbles and red brick fragments. Occasional fragments of organic matter	-1.5	1.0
		-2.0	1.5
2.0	**MADE GROUND** Soft, damp, grey/brown, silty CLAY with frequent sub-angular gravel and red brick fragment. Occasional fragments of organic matter.		
	MADE GROUND Soft moist orange/brown, silty CLAY with occasional grey and orange mottling and occasional gravels	-3.0	2.5
3.0	**MADE GROUND** Very soft, moist dark brown, silty clay with frequent red brick fragments		3.0
4.0	**ALLUVIUM** Very wet dark brown medium/fine SAND		
		-5.0	
5.0	**ALLUVIUM** Dark brown, moist, soft CLAY with frequent coarse angular gravels		
		-6.0	
6.0	**ALLUVIUM** SAND and GRAVEL in a soft dark grey clayey matrix		
		-7.0	
7.0	**ALLUVIUM** Dark grey firm, friable CLAY	-7.4	
	7.4 m bgl		7.4
8.0			
9.0			
10.0			

Groundwater Data

GW Strike - 3.0m bgl

RWL 0.93m bgl

Well Installation



Remarks: Groundwater encountered at 3.0m bgl.
RWL of 0.93m bgl on 0.305.07.

Checked by: JC

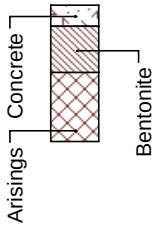
Project No: 64C11647 ***Window Sample: WS15_01***

Client: Alcoa ***Date:*** 16/04/07

Location: Waunarlwydd ***Plant Used:*** Terrier Rig

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0	0.3 - 0.6		
		Made Ground Crushed concrete and flint gravel.	-0.3			
		Made Ground Crushed concrete, flint gravel and grey reworked clay with a slight lacquer odour between 0.5m and 0.6m bgl.	-0.6			
1.0		**Terminated at 0.6m** Concrete obstruction 0.6 m bgl				
2.0						
3.0						
4.0						
5.0						

Remarks:

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS15_02***

Client: Alcoa ***Date:*** 16/04/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

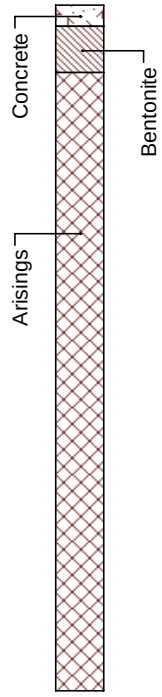
Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Soft brown clay with occasional flint gravel and brick fragments with a slight hydrocarbon odour becoming strong between 0.5m and 0.8m bgl	-0.8	0.5 - 0.8
1.0	**Alluvium** Firm dense brown CLAY with occasional angular gravels. Organic matter (rootlets) throughout.	-1.1	0.8 - 1.0
	Alluvium Firm brown CLAY with occasional organic fragments.	-1.8	1.7 - 2.0
2.0	**Alluvium** Firm silty brown CLAY becoming slightly sandy and saturated at base.	-2.8	2.7 - 3.0
3.0	**Alluvium** Firm brown CLAY with coal fragments embedded, possible coal seam at 3.0m.	-3.0	
	3 m bgl		
4.0			
5.0			

Groundwater Data

Well Installation



Remarks: Groundwater not encountered

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH16_01***

Client: Alcoa ***Date:*** 14/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Topsoil with occasional flint gravel and concrete fragments. Mild solvent odour and black staining in top 0.2m.	-0.5	0.5
1.0			1.0
	Coal Measures Light grey weathered MUDSTONE. Very soft weathered mud grains becoming clayey with depth.	-2.0	
2.0			2.0
	Coal Measures Dark grey clayey MUDSTONE with occasional fragments of brown fine grained mudstone.	-3.0	
3.0			3.0
	Coal Measures Soft weathered MUDSTONE with occasional fragments of hard brown fine grained mudstone. Crystalline shell in one fragment.		
4.0			4.0
5.0			5.0
		-5.8	5.8
6.0	**Coal Measures** Very fine grained grey MUDSTONE.		
7.0			
8.0			
9.0		-9.0	
	Coal Measures Very fine grained grey MUSTONE with interlayered pink-red fine grain SANDSTONE. Recovered as pink and grey dust and fragments.	-10.0	
10.0	**Coal Measures** Fine grained grey MUDSTONE.		
11.0			
12.0			
13.0			
		-14.0	
14.0	14 m bgl		
15.0			

Groundwater Data: RWL 3.65m bgl; GW Strike - 11.2m bgl

Well Installation: Bentonite; 50mm Plain Pipe; Filter Pack; 50mm Slotted Pipe

Remarks: Solid stem auger to 5.3m bgl. ODEX from 5.3m bgl to 14.0m bgl.
Groundwater encountered at 11.2m bgl.
RWL of 3.65m bgl on 19.03.07.

Checked by:

Project No: 64C11647 ***Window Sample: WS16_01***

Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	MADE GROUND Concrete underlain by membrane	-0.3			
	MADE GROUND Grey clayey SAND with medium to coarse subangular gravel (sub-base)	-0.5			
		-0.6	0.5 - 0.6		
	MADE GROUND Stiff dark grey brown sandy gravelly CLAY - ground is weathered red brown tabular				
1.0	**POSSIBLE MADE GROUND** Stiff friable grey green mottled grey sandy SILT with some fine to medium angular mudstone gravel. Possible made ground / possible weathered mudstone	-1.3	1.1 - 1.3		
		-1.4			
	POSSIBLE MADE GROUND Red brown - as above				
	Coal Measures Very stiff grey green sandy SILT matrix with frequent fine angular deposits of weak mudstone	-2.0	1.8 - 1.9		
2.0	2 m bgl				
3.0					
4.0					
5.0					

Remarks: Refusal at 2.0m bgl.
Window sample filled with water after 5 minutes from gravel under concrete.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS16_02***

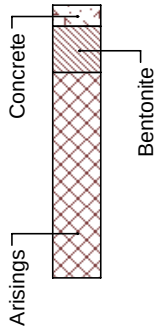
Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	MADE GROUND Vegetation over dark brown sandy SILT with occasional rootlets, fine brick fragments and grey clayey lenses.	-0.2	0.1 - 0.2		
	MADE GROUND Grey wet sandy CLAY with medium to coarse sub-angular gravel. Dark grey staining and a moderate hydrocarbon odour.	-0.6	0.4 - 0.6		
1.0	**COAL MEASURES** Weathered mudstone asprenous. Faint hydrocarbon odour.	-1.2	0.7 - 0.8		
	1.2 m bgl				
2.0					
3.0					
4.0					
5.0					



Remarks: 1.2m Refusal
Window sample filled with water from gravel under concrete.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS16_03***

Client: Alcoa ***Date:*** 17/04/07

Location: Swansea ***Plant Used:*** Terrier Rig

Datum: ***Logged by:*** JE

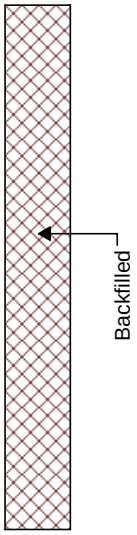
SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)
0.0	Ground Surface	0.0
	Made Ground Crushed and fragmented red brick.	-0.3
	Coal Measures Band of heavily weathered fine grained SANDSTONE recovered as fragments with black stain and slight solvent odour within fractures.	-0.6
	Coal Measures Heavily weathered fractured SILTSTONE with black stains in fractures and strong solvent odour.	-0.8
1.0	**Coal Measures** Fractured sandstone as before with black stains in fractures.	-1.0
	Coal Measures Fractured sandstone. No evidence of staining. Becomes damp at 1.4-1.5m bgl.	-1.5
2.0	**Coal Measures** Weathered grey fine grained MUDSTONE becoming firmer with depth.	-2.3
	2.3 m bgl	
3.0		
4.0		
5.0		

Sample Depth (m bgl)

Groundwater Data

Well Installation



Remarks:

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS17_01***

Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Symbol	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0		Ground Surface	0.0			
		MADE GROUND Concrete	-0.4	0.4 - 0.5		Backfilled
		MADE GROUND Wet silty sandy medium to coarse angular sub-base GRAVELS. Stained black with strong hydrocarbon odour.	-0.5			
		0.5 m bgl				
1.0						
2.0						
3.0						
4.0						
5.0						

Remarks: Window sample terminated at 0.5m bgl.
Refusal on concrete surface.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Window Sample: WS17_02***

Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Terrier

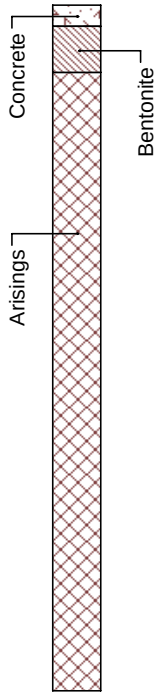
Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
	Ground Surface	0.0	
0.0	**MADE GROUND** Scalpings	-0.1	
	MADE GROUND Concrete	-0.2	
	MADE GROUND Firm grey brown sandy gravelly CLAY. Gravels are fine to medium and angular.	-0.8	0.6
1.0	**MADE GROUND** Firm grey brown sandy slightly gravelly CLAY with occasional fine to medium brick and grey lenses of wet fine clayey GRAVEL.	-1.0	
	MADE GROUND Firm grey brown sandy slightly gravelly CLAY with occasional black lenses and an unidentifiable odour below 1.5m.		1.6
2.0	**ALLUVIUM** Firm orange brown mottled brown grey slightly sandy slightly gravelly CLAY with a faint organic odour.	-2.0	
			2.5
3.0	3 m bgl	-3.0	
4.0			
5.0			

Groundwater Data

Well Installation



Remarks: Window sample terminated at 3.0m.
Collapsing and water ingress from ~2.0m.
Groundwater not encountered.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Hand Pit: HP17_01***

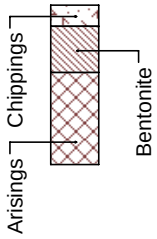
Client: Alcoa ***Date:*** 08/03/07

Location: Waunarlwydd ***Plant Used:*** Hand-dug

Datum: ***Logged by:*** JC

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)	Groundwater Data	Well Installation
0.0	Ground Surface	0.0			
	MADE GROUND Chippings with black staining	-0.2	0.1 - 0.2		
	MADE GROUND Brown clayey sandy medium to coarse angular GRAVEL with soil in it.	-0.4	0.2 - 0.35		
	MADE GROUND Grey very clayey sandy medium to coarse angular GRAVEL with a moderate hydrocarbon odour.	-0.7	0.6 - 0.7		
1.0	**MADE GROUND** Stiff orange brown mottled dark grey and brown sandy gravelly CLAY with occasional sandstone cobbles and fine to medium brick and slag fragments. No apparent hydrocarbon odour.				
	0.7 m bgl				
2.0					
3.0					
4.0					
5.0					



Remarks: Hand pit terminated at 0.7m.

Checked by:

Sheet: 1 of 1

Project No: 64C11647 ***Borehole: BH18_01***

Client: Alcoa ***Date:*** 12/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Reinforced concrete	-0.3	
	Made Ground Soft brown clay with rounded to angular flint gravels up to 50mm	-1.5	1.2 - 1.5
	Alluvium Recovered as soft brown clay with occasional mudstone and sandstone gravel.	-2.0	2.0
	Glacial Deposits Recovered as soft brown CLAY with frequent subangular mudstone and sandstone gravels.		
		-5.5	4.5
	Coal Measures Recovered as fine grained grey-brown angular fragments of mudstone.		
		-7.0	7.0
	7 m bgl		

Groundwater Data: RWL 3.11m bgl; GW Strike - 6.0m bgl

Well Installation: Bentonite; 50mm Plain Pipe; Filter Pack; 50mm Slotted Pipe

Remarks: Solid Stem Auger to 3.0m and ODEX (air flush) from 3.0m to 7.0m bgl.

Checked by:

Sheet: 1 of 1

Project No: 61C11647 ***Borehole: BH18_02***

Client: Alcoa ***Date:*** 14/03/07

Location: Waunarlwydd ***Plant Used:*** Beretta T25

Datum: ***Logged by:*** JE

SUBSURFACE PROFILE

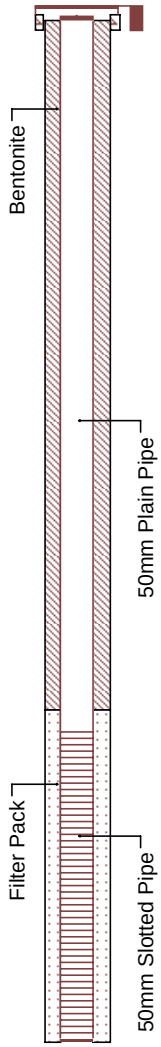
Depth (m bgl)	Description	Elevation (m bgl)	Sample Depth (m bgl)
0.0	Ground Surface	0.0	
	Made Ground Concrete	-0.3	
	Made Ground Brown-green clay with occasional flint gravel and crushed brick.	-1.0	1.0
1.0	**Glacial Deposits** Brown soft CLAY with occasional angular flint gravels up to 50mm. Becomes slightly damp at 5.5m.		2.0
2.0			3.0
3.0			
4.0			
5.0			
6.0			
7.0		-7.0	
	Coal Measures Recovered as fragments of slightly fine grained grey mudstone becoming harder and less fragmented from 8.0m. Saturated at 9.0m bgl.		
8.0			
9.0			
10.0		-10.0	
	10 m bgl		
11.0			

Groundwater Data

RWL 3.83m bgl

GW Strike - 9.0m bgl

Well Installation



Remarks: Solid stem auger to 3.0m bgl. ODEX from 3.0m bgl to 10.0m bgl.
Groundwater encountered at 9.0m bgl.
RWL of 3.83m bgl on 19.03.07.

Checked by:

Sheet: 1 of 1

B2: Land Gas Monitoring Results

Table B2 : Land Gas Monitoring Results

Position	Atmospheric Pressure (mb)	Flow (l/hr)	Borehole Pressure (Pa)	Oxygen (O2, % by volume)	Methane (CH4 % by volume)	Carbon Dioxide (CO2 % by Volume)	Lowere Explosive Limit (LEL)	Date	Notes
BH01_01	1026	0.5	0.0	16.0	0.8	1.2	15.2	16/03/2007	CH4 flashed off the scale for < 1s then peaked at 4.5 before stabilising at 0.8
BH02_01	1027	-1.5	-4.0	6.7	0.0	0.0	0.0	16/03/2007	
BH02_02	1026	2.2	7.0	18.1	0.3	2.7	3.9	16/03/2007	
BH02_03	1025	0.4	2.0	7.5	0.0	4.5	0.0	16/03/2007	
BH03_01	-	-	-	-	-	-	-	-	Not installed
BH03_02	1007	0.0	0.0	16.5	0.0	0.7	0.0	01/06/2007	
BH03_03	1007	0.2	0.0	19.7	0.1	0.0	0.0	09/05/2007	
BH04_01	-	-	-	-	-	-	-	-	Not installed
BH05_01	1014	0.0	0.0	20.9	0.0	0.3	0.0	21/03/2007	
BH05_02	1014	-0.5	-2.0	20.2	0.0	0.4	0.0	21/03/2007	
BH05_03	1003	0.2	2.0	19.5	0.0	1.0	0.0	19/03/2007	
BH06_01	-	-	-	-	-	-	-	-	Not installed
BH06_02	1017	0.0	0.0	21.0	0.0	0.0	0.0	03/05/2007	
BH06_03	1015	-1.0	-2.0	20.1	0.1	0.2	1.0	03/05/2007	
BH09_01	1025	0.0	0.0	19.7	0.2	1.4	0.0	06/03/2007	Initially peaked @ PID 11.7, CH4 >>>> and LEL >>>>, then CH4 fluctuating between 5-8->>>> before stablilising
BH09_02	1001	1.5	4.0	21.2	0.0	0.2	0.0	19/03/2007	Initially peaked @ CO2 2.1
BH09_03	1026	-0.3	-3.0	20.6	>>>> to 0.5	0.5	>>>> to 0	16/03/2007	CH4 and LEL readings highly variable
BH09_04	1001	-0.7	1.0	10.5	1.5	1.5	-	19/03/2007	
BH11_01	1003	0.2	0.0	19.7	0.3	0.4	4.0	19/03/2007	
BH11_02	1003	0.0	0.0	19.9	0.0	0.7	0.0	19/03/2007	
BH11_03	1003	0.0	0.0	14.8	0.0	1.9	0.0	19/03/2007	
BH12_01	1009	2.0	5.0	7.5	5.6	12.0	60.8	08/05/2007	
BH12_01	-	-	-	-	-	-	-	31/05/2007	
BH12_02	1001	0.1	0.0	12.6	1.7	0.7	30.8	10/05/2007	
BH12_02	1006	0.0	0.0	19.9	0.0	0.0	0.0	15/05/2007	Initially peaked @ LEL 1.8% and CH4 0.4%
BH12_02	-	-	-	-	-	-	-	31/05/2007	
BH13_01	1001	0.0	0.0	-	-	-	-	19/03/2007	Water level too high to obtain gas readings.
BH13_01	-	-	-	-	-	-	-	31/05/2007	
BH13_02	-	-	-	-	-	-	-	19/03/2007	Water level too high to obtain gas readings.
BH13_03	1001	0.0	0.0	11.6	2.2	0.0	-	19/03/2007	
BH14_01	1014	-3.1	-9.0	20.1	0.0	0.3	0.0	03/05/2007	
BH15_01	1013	-5.7	-20.0	19.8	0.4	0.3	8.1	03/05/2007	
BH16_01	1003	2.0	5.0	13.5	0.0	0.6	0.0	19/03/2007	Large release of air when top released.
BH17_01	1019	0.0	0.0	11.5	87.0	0.8	>>>>>	21/03/2007	
BH18_01	1003	-0.1	0.0	10.9	>>>>>	7.3	>>>>>	19/03/2007	
BH18_02	1003	0.0	0.0	16.9	0.0	1.6	0.0	19/03/2007	

>>>>> - exceeds instrument detection limits

B3: Rest Groundwater Monitoring Tables

Table B3: Groundwater Monitoring Results

Position	RWL	Well depth	Product?	Date	Notes
BH01_01	0.785	12.650	no	16/03/2007	
BH02_01	1.810	4.710	no	16/03/2007	
BH02_02	1.260	6.540	no	16/03/2007	
BH02_03	2.200	3.230	no	16/03/2007	Moderate hydrocarbon odour
BH03_01	-	-	-	-	Not installed
BH03_02	1.540	10.120	no	01/06/2007	
BH03_03	1.550	5.760	no	09/05/2007	
BH04_01	-	-	-	-	Not installed
BH05_01	1.400	6.760	no	21/03/2007	
BH05_02	3.070	10.030	no	21/03/2007	
BH05_03	1.400	12.160	no	19/03/2007	
BH06_01	-	-	-	-	Not installed
BH06_02	1.350	8.730	no	03/05/2007	
BH06_03	0.450	3.730	no	03/05/2007	
BH09_01	2.630	6.980	no	06/03/2007	
BH09_02	2.210	5.520	no	19/03/2007	
BH09_03	2.300	5.620	no	16/03/2007	
BH09_04	2.630	5.950	no	19/03/2007	
BH11_01	3.930	10.900	no	19/03/2007	
BH11_02	4.480	9.100	no	19/03/2007	
BH11_03	4.540	8.050	no	19/03/2007	
BH12_01	1.460	4.320	no	08/05/2007	
BH12_01	1.420	-	1.40 - 1.42	31/05/2007	detected, low viscosity
BH12_02	1.340	6.140	no	10/05/2007	
BH12_02	1.120	6.100	no	15/05/2007	
BH12_02	1.330	-	no	31/05/2007	
BH13_01	0.570	3.750	no	19/03/2007	
BH13_02	0.500	2.790	no	19/03/2007	
BH13_03	1.050	4.220	0.934 - 1.05	19/03/2007	free phase hydrocarbon product with a jelly like consistency.
BH13_03	0.730	-	no	31/05/2007	No free phase hydrocarbons detected. Heavy rainbow sheen and strong hydrocarbon odour.
BH14_01	1.320	5.800	no	03/05/2007	
BH15_01	0.930	7.030	no	03/05/2007	
BH16_01	3.650	14.430	no	19/03/2007	
BH17_01	1.160	3.510	no	21/03/2007	
BH18_01	3.110	6.860	no	19/03/2007	
BH18_02	3.830	9.680	no	19/03/2007	

RWL - Rest Groundwater Level (m bgl)

B4: Zoned Results of Chemical Analysis of Soil Samples

				Inorganic Analysis																				Extractable Petroleum Hydrocarbons				PCBs								
Zone	Sample Reference	Sample Depth (m)	Inorganic Analysis	Asbestos Screen	Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
1	BH01-01	0.50-1.00		-	14	50	1	< 0.5	< 0.5	18	-	35	22	< 0.6	34	< 2.5	650	18	95	-	150	0	-	8.4	20	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	500	-	-	-	42	0	-	8	83	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00		-	4.7	98	1.2	0.8	0.5	14	-	50	53	< 0.6	69	< 2.5	-	16	190	-	52	0	-	7.6	97	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60		-	13	31	0.5	< 0.5	< 0.5	< 10	-	28	27	< 0.6	12	< 2.5	-	10	35	-	-	0	-	7.9	13	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	9.7	16	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	1.00		-	4.6	82	1.2	< 0.5	< 0.5	25	-	33	24	< 0.6	36	< 2.5	-	21	77	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00		-	5.9	120	1.3	< 0.5	< 0.5	24	-	39	37	< 0.6	52	< 2.5	< 200	24	110	-	-	0	-	7	13	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	5.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	7.2	22	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	470	-	-	-	-	0	-	6.5	8	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	6.1	5	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	3.50-4.00		-	3.7	23	< 0.5	< 0.5	< 0.5	16	-	8.6	< 10	< 0.6	22	< 2.5	-	14	73	-	-	0	-	7.1	390	-	-	-	-	-	-	-	-	-	-	-
3	BH03_02	0.5		-	8.4	73	0.5	0.6	0.6	< 10	-	28	24	< 0.6	15	< 2.5	-	14	120	-	-	-	-	11	1200	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3		-	11	110	1.2	0.6	0.7	15	-	58	40	< 0.6	53	< 2.5	-	14	86	-	-	15	-	8	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5		Absent	73	320	1	0.9	2.6	70	-	390	630	1	140	< 2.5	0	72	770	-	-	-	-	11.2	930	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6		-	8.5	58	0.8	< 0.5	< 0.5	16	-	22	22	< 0.6	27	< 2.5	0	14	61	-	-	-	-	8.2	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	7		-	9	60	0.9	< 0.5	< 0.5	19	-	25	24	< 0.6	31	< 2.5	0	15	68	-	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6		-	9.9	77	0.8	0.6	< 0.5	23	-	44	54	< 0.6	23	< 2.5	-	27	69	-	-	-	-	8.1	48	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	1.3		-	8.1	59	0.9	< 0.5	< 0.5	14	-	20	22	< 0.6	26	< 2.5	-	15	63	-	-	0.91	-	6.1	10	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5		Absent	9.2	54	0.9	0.6	< 0.5	17	-	27	38	< 0.6	14	< 2.5	0	19	57	-	-	-	-	5.3	< 5	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0		-	4	69	0.7	< 0.5	< 0.5	14	-	28	43	< 0.6	25	< 2.5	0	15	59	-	-	-	-	5.9	6	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50		-	11	74	0.8	0.6	0.8	25	-	63	38	< 0.6	25	< 2.5	-	17	200	-	-	-	-	8.8	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00		-	7.4	60	0.8	< 0.5	< 0.5	33	-	27	23	< 0.6	24	< 2.5	-	16	90	-	-	-	-	8.7	120	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	4.00		-	7	68	0.8	< 0.5	< 0.5	50	-	23	21	< 0.6	25	< 2.5	-	16	64	-	-	-	-	8.1	40	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00		-	11	36	< 0.5	< 0.5	< 0.5	< 10	-	37	29	< 0.6	11	< 2.5	-	9.5	77	-	-	-	-	8.7	55	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00		-	7.8	57	0.7	< 0.5	< 0.5	24	-	25	29	< 0.6	20	< 2.5	-	15	73	-	-	0.87	-	8.5	13	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50		-	9.9	34	< 0.5	0.5	< 0.5	15	-	59	19	< 0.6	17	< 2.5	-	12	35	-	-	-	-	8.2	6100	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	3.20		-	9.9	55	0.7	< 0.5	< 0.5	15	-	33	28	< 0.6	21	< 2.5	-	15	72	-	-	-	-	7.9	3000	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

				Inorganic Analysis																				Extractable Petroleum Hydrocarbons				PCBs								
Zone	Sample Reference	Sample Depth (m)	Inorganic Analysis	Asbestos Screen	Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
6	BH06_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	7.8	930	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0		-	7	68	1.1	< 0.5	< 0.5	28	-	23	< 10	< 0.6	33	< 2.5	0	17	67	-	-	-	-	7.5	11	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	7	20	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5		Absent	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	7.6	550	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0		-	6	79	0.9	< 0.5	< 0.5	29	-	23	21	< 0.6	24	< 2.5	0	15	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0		-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	7.3	-	-	-	-	-	-	-	-	-	-	-	-
7	SS07_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	32000	-	-	-	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	ND
	SS07_02	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
	WS07_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	1000	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
8	HP08_01	0.05-0.15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.2	16000	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5		-	150	330	0.8	< 0.5	4.5	47	-	820	980	0.8	60	< 2.5	-	28	8500	-	-	-	-	7.5	3400	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1		-	710	260	1	1	2.1	57	-	2900	1300	8.1	150	20	-	57	680	-	-	-	-	10.1	62	-	-	-	-	-	-	-	-	-	-	-
	BH09_01	2.2		-	160	120	0.9	2	1.3	20	-	690	140	0.8	24	2.8	-	28	1200	-	-	-	-	6.5	190	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 40	0	59	7.9	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	3.50-3.80		-	16	89	0.7	< 0.5	< 0.5	16	-	34	26	< 0.6	20	< 2.5	-	20	64	-	-	0	-	5.9	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20		-	240	190	1.2	0.9	1.2	25	-	680	260	1.5	36	4.2	-	32	770	-	-	0	24	7.6	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	< 40	0	-	7	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0		-	44	570	1	1.8	1.4	63	-	990	550	< 0.6	66	< 2.5	-	29	840	-	-	-	-	6.9	1600	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5		-	38	270	0.9	0.9	0.7	32	-	530	270	< 0.6	42	< 2.5	-	25	420	-	-	6.1	-	7.2	1300	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	0.5-0.6		-	100	430	1	0.7	2.9	110	-	1600	5800	0.9	91	< 2.5	-	70	1100	-	-	-	-	7.3	9400	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.8	46000	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1		-	34	66	< 0.5	0.9	1.4	92	-	89	76	< 0.6	20	< 2.5	-	15	630	-	-	-	-	6.5	340000	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	48000	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	1.5-1.6		-	17	160	1	0.9	< 0.5	27	-	130	100	< 0.6	35	< 2.5	-	23	210	-	-	-	-	6.5	1300	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

				Inorganic Analysis																			Extractable Petroleum Hydrocarbons				PCBs							
Zone	Sample Reference	Sample Depth (m)	Inorganic Analysis	Asbestos Screen	Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
10	SS10_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.1	11000	-	-	-	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	ND
	SS10_02	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12000	-	-	-	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	ND
	SS10_03	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
	SS10_04	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	23000	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2500	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
	SS10_06	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53000	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.2	1900	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
	SS10_08	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	520	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	0.003	0.003	0.002	0.008
	SS10_09	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54	-	-	-	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	ND
	SS10_10	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7300	-	-	-	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	< 0.020‡	ND
11	BH11_01	1.5-2		-	7.7	61	0.6	< 0.5	< 0.5	15	-	20	18	< 0.6	16	< 2.5	-	15	42	-	-	-	-	7.5	43	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5		-	5.4	76	1	0.6	< 0.5	30	-	20	23	< 0.6	17	< 2.5	-	27	57	-	-	-	-	4.9	31	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	1.0		-	7.2	100	1.1	< 0.5	< 0.5	22	-	24	23	< 0.6	30	< 2.5	-	19	66	-	-	-	-	6.3	25	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0		-	12	99	1	< 0.5	< 0.5	32	-	18	28	0.6	19	< 2.5	-	32	78	-	-	-	-	5.4	9	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0		-	10	77	0.9	< 0.5	< 0.5	32	-	20	22	< 0.6	21	< 2.5	-	20	61	-	-	-	-	5.5	24	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50		-	5.5	95	< 0.5	< 0.5	< 0.5	11	-	18	15	< 0.6	12	< 2.5	-	13	30	-	-	-	-	8.4	25	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00		-	9.8	99	1.2	< 0.5	< 0.5	30	-	17	34	< 0.6	22	< 2.5	-	33	84	-	-	0.74	-	7.5	72	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0		Absent	11	22	< 0.5	< 0.5	< 0.5	< 10	-	26	17	< 0.6	7.3	< 2.5	0	6.9	36	-	-	-	-	8.3	63000	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	8.1	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	4.5		-	22	44	1	0.7	< 0.5	34	-	8.2	19	< 0.6	21	< 2.5	0	60	45	-	-	-	-	8.6	5900	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50		-	10	68	0.6	< 0.5	< 0.5	22	-	45	27	< 0.6	16	< 2.5	0	25	94	-	-	-	-	7.6	210	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	1900	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00		-	10	66	0.8	< 0.5	1	38	-	25	46	< 0.6	23	< 2.5	0	15	73	-	-	-	-	7.5	91	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43000	21000	12000	10000	-	-	-	-	-	-	-	-
	SS12_03	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	20000	9800	5500	4800	-	-	-	-	-	-	-	-
	WS12-01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.3	360	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	1100	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

				Inorganic Analysis																				Extractable Petroleum Hydrocarbons				PCBs								
Zone	Sample Reference	Sample Depth (m)	Inorganic Analysis	Asbestos Screen	Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
13	BH13_01	0.5		-	320	370	0.9	1.5	1	39	< 5	1100	260	1	32	< 2.5	-	27	1100	-	-	-	-	7.3	8200	-	-	-	-	-	-	-	-	-	-	-
	BH13_01	2		-	7.8	45	0.6	< 0.5	< 0.5	15	< 5	19	17	< 0.6	20	< 2.5	-	14	57	-	-	-	-	5.2	210	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5		-	130	180	1.5	0.6	0.8	17	< 5	69	56	0.6	13	< 2.5	-	25	68	-	-	-	-	6.9	410	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	2		-	21	100	1.1	< 0.5	< 0.5	23	< 5	45	85	0.6	25	< 2.5	-	29	87	-	-	-	-	6.5	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5		-	28	130	1.2	1.8	< 0.5	350	< 5	140	94	< 0.6	30	< 2.5	-	20	600	-	-	-	-	7.3	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	2.5		-	9.8	83	0.8	< 0.5	< 0.5	19	< 5	26	22	< 0.6	23	< 2.5	-	15	68	-	-	-	-	7.3	72	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	4600	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5		-	17	200	1.5	0.6	< 0.5	28	-	51	52	0.8	47	< 2.5	-	32	110	-	-	-	-	6.4	11000	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	0.8-1.0		-	14	34	0.5	< 0.5	< 0.5	780	6.5	48	51	< 0.6	14	< 2.5	-	13	44	-	-	-	-	7.2	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	2.2-2.5		-	29	33	< 0.5	1	< 0.5	800	6	26	23	< 0.6	5.8	< 2.5	-	9.1	120	-	-	-	-	10.2	370	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	0.5-1		-	7.1	25	< 0.5	0.5	< 0.5	6200	14	14	17	< 0.6	10	< 2.5	-	9.8	43	-	-	-	-	7.7	41	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2		-	10	17	< 0.5	0.9	< 0.5	10000	16	8.9	< 10	< 0.6	5.5	< 2.5	-	13	31	-	-	-	-	8.4	60	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5		-	13	24	< 0.5	< 0.5	< 0.5	3400	12	19	16	< 0.6	4.5	< 2.5	-	9.8	37	-	-	-	-	7.9	28	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4		-	12	94	0.7	< 0.5	< 0.5	1600	18	11	24	< 0.6	15	< 2.5	-	35	39	-	-	-	-	8.4	59	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8		-	9.6	27	< 0.5	< 0.5	< 0.5	1600	18	26	22	< 0.6	5.5	< 2.5	-	10	41	-	-	-	-	9	23	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3		-	4.7	< 10	< 0.5	< 0.5	< 0.5	1600	400	10	< 10	< 0.6	< 4	< 2.5	-	5.2	16	-	-	-	-	7.2	14	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4		-	4.9	10	< 0.5	< 0.5	< 0.5	1500	430	10	< 10	< 0.6	< 4	< 2.5	-	5.9	16	-	-	-	-	7.1	22	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3		-	370	210	2.3	0.8	0.7	60	< 5	320	250	1.7	34	5.2	-	32	1200	-	-	-	-	7.6	360	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8		-	36	85	0.7	< 0.5	< 0.5	38	< 5	14	26	< 0.6	16	< 2.5	-	29	67	-	-	-	-	6.4	27	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2		-	6.1	64	0.6	< 0.5	< 0.5	15	< 5	9.7	18	< 0.6	9.3	< 2.5	< 200	17	30	-			-	6.1	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

				Inorganic Analysis																				Extractable Petroleum Hydrocarbons				PCBs								
Zone	Sample Reference	Sample Depth (m)	Inorganic Analysis	Asbestos Screen	Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
14	WS14_01	0-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	150	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1		-	43	87	0.8	0.6	0.6	24	-	110	64	0.7	18	< 2.5	-	25	190	-	-	-	-	7.1	63	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	3.00		-	43	92	1	< 0.5	< 0.5	30	-	100	68	0.6	25	< 2.5	440	25	170	-	-	-	-	6.7	43	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	6.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.8	10	-	-	-	-	-	-	-	-	-	-	-
15	BH15-01	0.10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	0.50		-	72	120	0.8	< 0.5	0.9	32	-	120	140	1.1	14	< 2.5	1500	27	180	-	-	2.6	-	7.9	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	BH16_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.7	5200	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	26	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	-	8.9	210	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	0.5-0.6		-	14	200	0.5	< 0.5	< 0.5	14	-	57	24	< 0.6	15	< 2.5	-	21	44	-	-	-	-	7.9	100	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	1.8-1.9		-	< 3	210	1.4	< 0.5	< 0.5	27	-	58	19	< 0.6	45	< 2.5	-	21	99	-	-	0.5	-	7.7	9	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6		-	7.2	31	< 0.5	1.2	< 0.5	< 10	-	9.9	< 10	< 0.6	8.3	< 2.5	-	8.7	66	-	-	-	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.7-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.2	550	-	-	-	-	-	-	-	-	-	-	-
17	BH17_01	0.50		-	52	140	0.8	0.9	1.1	24	-	350	230	< 0.6	30	< 2.5	-	24	540	-	-	-	-	8.4	200	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00		-	40	130	0.8	0.8	1.1	22	-	300	190	< 0.6	30	< 2.5	-	22	540	-	-	2.9	-	7.9	310	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	3.00		-	17	51	0.5	< 0.5	< 0.5	23	-	60	42	< 0.6	14	< 2.5	-	32	84	-	-	-	-	7.2	12	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35		-	25	170	0.7	3.9	2.6	1000	-	360	190	< 0.6	140	< 2.5	-	48	720	-	-	-	-	7.1	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.6-0.7		-	28	110	1	0.6	< 0.5	34	-	120	78	< 0.6	42	< 2.5	-	27	190	-	-	-	-	7.2	57	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.3	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	0.6		-	19	17	1.1	< 0.5	1.1	19	-	36	29	< 0.6	32	< 2.5	-	10	95	-	-	-	-	6.4	8	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5		-	20	84	0.8	< 0.5	< 0.5	17	-	56	270	< 0.6	27	< 2.5	-	18	530	-	-	-	-	7.7	35	-	-	-	-	-	-	-	-	-	-	-
18	BH18-01	1.2-1.5		-	18	68	0.6	0.5	< 0.5	16	< 5	44	42	< 0.6	13	< 2.5	2200	14	98	-	-	-	-	8.1	110	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	2.0		-	8.6	140	1.2	< 0.5	< 0.5	29	< 5	31	24	< 0.6	31	< 2.5	-	22	76	-	-	0.93	-	7.7	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5		-	8.5	100	1	< 0.5	< 0.5	28	< 5	61	44	< 0.6	25	< 2.5	220	18	73	-	-	-	-	5.5	72	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0		-	-	-	-	-	-	22	< 5	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0		-	8.9	88	1	< 0.5	< 0.5	24	< 5	23	21	< 0.6	24	< 2.5	420	21	57	-	-	-	-	7.6	22	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	3.0		-	7.9	65	0.9	< 0.5	< 0.5	37	< 5	22	21	< 0.6	21	< 2.5	290	18	53	-	-	-	-	7.5	25	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0		-	11	70	0.8	< 0.5	< 0.5	35	< 5	120	24	< 0.6	29	< 2.5	-	16	82	-	-	-	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			Phenols		Glycol Suite				PAH Suite																			
Zone	Sample Reference	Sample Depth (m)	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
1	BH01-01	0.50-1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH01-01	1.50-2.00	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.32	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.32	0.32
	BH01-01	2.50-3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
2	BH02-01	0.60	-	-	-	-	-	-	< 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	ND	ND
	BH02-02	0.60	-	-	-	-	-	-	< 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	ND	ND
	BH02-02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH02-02	2.00	-	-	-	-	-	-	< 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	ND	ND
	BH02-02	5.00	-	-	-	-	-	-	< 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	ND	ND
	BH02-03	0.60	-	-	-	-	-	-	< 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	ND	ND
	BH02-03	2.50	-	-	-	-	-	-	< 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	ND	ND
	BH02-03	3.50-4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
3	BH03_02	0.5	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.32	< 0.1	< 0.1	0.11	< 0.1	0.12	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.55	
	BH03_02	3	-	-	-	-	-	-	0.14	< 0.1	< 0.1	0.16	0.81	< 0.1	< 0.1	< 0.1	< 0.1	0.11	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	1.22	
4	BH04_01	2.5	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.39	< 0.1	0.52	0.38	0.26	0.34	0.26	0.16	0.19	0.12	< 0.1	0.12	2.09	2.74
	BH04_01	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	BH04_01	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	WS04_01	0.4-0.6	-	-	-	-	-	-	< 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	ND	ND
	WS04_01	1.3	-	-	-	-	-	-	< 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	ND	ND
	WS04_02	0.2-0.5	-	-	-	-	-	-	< 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	ND	ND
	WS04_02	2.7-3.0	-	-	-	-	-	-	< 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	ND	ND
5	BH05_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH05_01	1.00	-	-	-	-	-	-	0.39	< 0.1	0.7	0.47	2.9	0.96	2.5	1.9	0.79	0.78	0.78	0.29	0.55	0.24	< 0.1	0.26	9.66	13.49
	BH05_01	4.00	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.25	< 0.1	0.15	0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.4	0.54
	BH05_02	1.00	-	-	-	-	-	-	< 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	ND	ND
	BH05_02	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH05_03	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH05_03	1.50	-	-	-	-	-	-	< 0.1	0.12	0.18	< 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	ND	0.3
	BH05_03	3.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								

All soil results are presented in mg/kg

			Phenols		Glycol Suite				PAH Suite																		
Zone	Sample Reference	Sample Depth (m)	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
6	BH06_01	0.5	-	-	-	-	-	-	< 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	ND	ND
	BH06_02	1.0	-	-	-	-	-	-	< 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	ND	ND
	BH06_02	5.0	-	-	-	-	-	-	< 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	ND	ND
	BH06_03	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0	-	-	-	-	-	-	< 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	ND	ND
7	SS07_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	HP08_01	0.3-0.5	-	-	-	-	-	-	< 0.1	< 0.1	0.14	0.11	1.5	0.32	2.5	1.8	1.3	1.4	1.4	0.83	0.96	0.84	0.16	0.84	10.45	14.07
9	BH09_01	1	< 0.1	< 1	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.61	0.14	1	0.79	0.53	0.61	0.52	0.35	0.45	0.27	< 0.1	0.25	4.19	5.5
	BH09_01	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60	-	-	-	-	-	-	< 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	ND	ND
	BH09_02	3.50-3.80	-	-	-	-	-	-	< 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	ND	ND
	BH09_03	0.80-1.20	-	-	-	-	-	-	< 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	ND	ND
	BH09_03	3.00	-	-	-	-	-	-	< 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	ND	ND
	BH09_04	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5	< 0.1	< 1	-	-	-	-	0.12	< 0.1	< 0.1	< 0.1	0.23	< 0.1	0.17	0.18	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.62	0.81
	HP09_01	0.5-0.6	-	-	-	-	-	-	0.18	< 0.1	< 0.1	< 0.1	0.51	< 0.1	0.49	0.46	0.31	0.31	0.4	0.29	0.39	0.35	0.12	0.52	3.36	4.34
	HP09_01	1-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	ND	0.13
	HP09_02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.17	< 0.1	0.15	0.14	< 0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.42	0.56
	WS09_01	1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								

All soil results are presented in mg/kg

			Phenols		Glycol Suite				PAH Suite																		
Zone	Sample Reference	Sample Depth (m)	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
10	SS10_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5	-	-	-	-	-	-	< 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	ND	ND
	BH11_02	1.0	-	-	-	-	-	-	< 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	ND	ND
	BH11_02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0	-	-	-	-	-	-	< 0.1	< 0.1	0.69	1.2	2.2	0.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	2.63	4.48
	BH12_01	4.5	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	0.13	0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.26	0.39
	BH12_02	1.30-1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00	-	-	-	-	-	-	< 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	ND	ND
	BH12_02	3.00	-	-	-	-	-	-	< 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	ND	ND
	SS12_01	0-0.1	-	-	-	-	-	-	< 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	ND	ND
	SS12_02	0.2	-	-	-	-	-	-	< 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	ND	ND
	SS12_03	0.2	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.18	< 0.1	0.21	0.22	0.1	0.14	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.63	0.85
	WS12-01	0.5	-	-	-	-	-	-	< 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	ND	ND
	WS12-01	2.8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			Phenols		Glycol Suite				PAH Suite																			
Zone	Sample Reference	Sample Depth (m)	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
13	BH13_01	0.5	< 0.1	< 1	-	-	-	-	< 0.1	< 0.1	0.13	0.21	0.71	< 0.1	0.25	0.24	0.12	0.18	0.13	< 0.1	0.1	< 0.1	< 0.1	< 0.1	1.36	2.08
	BH13_01	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5	< 0.1	< 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	ND	ND
	BH13_02	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5	< 0.1	< 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	ND	ND
	BH13_03	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5	-	-	-	-	-	-	< 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	ND	ND
	WS13-01	0.8-1.0	-	-	-	-	-	-	0.16	< 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	0.16	0.16
	WS13-01	2.2-2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	0.5-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2	-	-	-	-	-	-	< 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	ND	ND
	WS13-03	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4	-	-	-	-	-	-	< 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	ND	ND
	WS13-04	0.6-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2	-	-	-	-	-	-	< 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	ND	ND

All soil results are presented in mg/kg

			Phenols		Glycol Suite				PAH Suite																		
Zone	Sample Reference	Sample Depth (m)	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
14	WS14_01	0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.2	< 0.1	0.23	0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.43	0.57
	BH14-01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	BH15-01	0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50	-	-	-	-	-	-	< 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	ND	ND
16	BH16_01	0.50	-	-	<10	<10	<10	<10																			
	BH16_01	1.00	-	-	-	-	-	-	< 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	ND	ND
	BH16_01	3.00	-	-	<10	<10	<10	<10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	0.5-0.6	-	-	-	-	-	-	< 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	ND	ND
	WS16_01	1.8-1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6	-	-	<10	<10	<10	<10	< 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	ND	ND
	WS16_02	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	BH17_01	0.50	-	-	-	-	-	-	< 0.1	< 0.1	< 0.1	< 0.1	0.18	< 0.1	0.27	0.21	0.13	0.15	0.14	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.72	1.07
	BH17_01	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	BH17_01	3.00	-	-	-	-	-	-	< 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	ND	ND
	HP17_01	0.2-0.35	-	-	-	-	-	-	0.13	< 0.1	0.21	< 0.1	0.55	0.13	0.63	0.52	0.27	0.35	0.36	0.28	0.37	0.22	< 0.1	0.22	3.14	4.22
	HP17_01	0.6-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5	-	-	-	-	-	-	0.21	< 0.1	0.11	< 0.1	0.39	< 0.1	0.38	0.44	0.24	0.25	0.29	0.2	0.24	0.13	< 0.1	0.15	2.2	3.04
	WS17_02	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5	-	-	-	-	-	-	< 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	ND	ND
18	BH18-01	1.2-1.5	-	-	-	-	-	-	< 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	ND	ND
	BH18-01	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0	-	-	-	-	-	-	< 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	ND	ND
	BH18-02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			TPH CWG Suite																											
Zone	Sample Reference	Sample Depth (m)	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
1	BH01-01	0.50-1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	3.50-4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	BH03_02	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3	0.39	0.52	0.11	0.41	30	50	44	120	< 0.01	< 0.01	0.17	0.62	35	48	72	160	2.2	280	280	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
4	BH04_01	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6	0.01	0.01	< 0.01	< 0.01	< 5	7.5	22	30	< 0.01	< 0.01	< 0.01	< 0.01	< 5	< 5	11	11	0.03	40	40	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	
	BH04_01	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50	< 0.01	0.02	1.2	2.7	3400	6600	1700	12000	< 0.01	< 0.01	1.8	4	170	530	260	960	9.8	13000	13000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.043
	BH05_03	3.20																												

All soil results are presented in mg/kg

			TPH CWG Suite																										
Zone	Sample Reference	Sample Depth (m)	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
6	BH06_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0	< 0.01	< 0.01	< 0.01	< 0.01	< 5	8.3	16	24	< 0.01	< 0.01	< 0.01	0.01	< 5	< 5	7.9	7.9	0.01	32	32	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
7	SS07_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_01	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	3.50-3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4	< 0.01	0.02	0.02	0.13	25	68	83	180	< 0.01	< 0.01	0.03	0.19	9.7	30	46	86	0.39	260	260	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	WS09_01	1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			TPH CWG Suite																											
Zone	Sample Reference	Sample Depth (m)	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
10	SS10_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0	0.04	0.08	0.5	6.4	8700	8200	2300	19000	< 0.01	< 0.01	0.76	9.7	1300	2000	570	3900	17	23000	23000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.01	< 0.010	0.029
	BH12_01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1	0.4	0.11	0.21	0.18	2000	1200	2600	5900	< 0.01	< 0.01	0.32	0.26	160	190	1300	1600	1.5	7500	7500	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	-
	SS12_02	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			TPH CWG Suite																										
Zone	Sample Reference	Sample Depth (m)	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
13	BH13_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_01	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	2	< 0.01	< 0.01	< 0.01	0.01	< 5	6.1	7.6	14	< 0.01	< 0.01	< 0.01	0.02	< 5	< 5	< 5	< 5	0.04	14	14	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	BH13_03	0.5	< 0.01	< 0.01	< 0.01	< 0.01	13	46	130	190	< 0.01	< 0.01	< 0.01	< 0.01	< 5	12	30	42	< 0.01	230	230	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	BH13_03	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	0.8-1.0	< 0.01	0.03	0.23	1.7	75	180	83	340	< 0.01	< 0.01	0.35	2.6	42	58	29	130	4.9	470	470	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.035
	WS13-01	2.2-2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	0.5-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2	< 0.01	0.01	< 0.01	0.02	52	54	28	130	< 0.01	< 0.01	0.01	0.03	5.9	13	24	43	0.08	180	180	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010

All soil results are presented in mg/kg

			TPH CWG Suite																											
Zone	Sample Reference	Sample Depth (m)	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
14	WS14_01	0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	BH15-01	0.10	2.4	19	200	780	< 5	< 5	19	1000	< 0.01	< 0.01	340	1200	62	< 5	12	1600	2500	93	2600	< 0.010	< 0.010	< 0.010	0.42	13	18	97	390
	BH15-01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	BH16_01	0.50	< 0.01	0.03	< 0.01	< 0.01	5.2	89	3100	3200	< 0.01	< 0.01	0.04	< 0.01	< 5	19	650	670	0.07	3800	3800	< 0.010	< 0.010	< 0.010	< 0.010	0.015	0.015	< 0.010	< 0.010
	BH16_01	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	1.8-1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6	< 0.01	1.2	58	180	220	300	2100	2800	< 0.01	< 0.01	88	270	16	31	500	900	600	3100	3700	0.023	< 0.010	< 0.010	0.46	< 0.010	< 0.010	< 0.010	< 0.010
	WS16_02	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	BH17_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35	< 0.01	0.04	0.16	0.24	17	82	2700	2800	< 0.01	< 0.01	0.24	0.36	7.7	34	740	780	1	3600	3600	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
	HP17_01	0.6-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5	0.01	0.27	1.9	4.9	1300	6200	8400	16000	< 0.01	< 0.01	2.9	7.3	220	930	3000	4200	17	20000	20000	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.028	< 0.010	0.14
	WS17_02	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	BH18-01	1.2-1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

				SVOC Suite																																		
Zone	Sample Reference	Sample Depth (m)	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
1	BH01-01	0.50-1.00		< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
	BH01-01	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	5.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	3.50-4.00		< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
3	BH03_02	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6		<0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
	BH04_01	7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	1.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	4.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	3.20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																					
Zone	Sample Reference	Sample Depth (m)	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
6	BH06_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5		<0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
	BH06_03	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	SS07_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_01	2.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	3.50-3.80		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	0.5-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	1.5-1.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																						
Zone	Sample Reference	Sample Depth (m)	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
10	SS10_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	4.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																				
Zone	Sample Reference	Sample Depth (m)	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
	BH13_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_01	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5		< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
	WS13-01	0.8-1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	WS13-01	2.2-2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	0.5-1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			SVOC Suite																																					
Zone	Sample Reference	Sample Depth (m)	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
	WS14_01	0-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	BH14-01	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	3.00		4.3	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
	BH14-01	4.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	6.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	0.10		13	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.15	< 0.15	<0.15	<0.15	< 0.15	< 0.15	<0.15	<0.2	<0.2	<0.3	<0.3	<0.2	<0.2	<0.15	<0.15	<0.2	<0.3	<0.25	<0.25	<0.2	<0.2	<0.15	<0.15
15	BH15-01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16																																								
	WS16_01	0.5-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	1.8-1.9		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.7-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	HP17_01	0.6-0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	1.2-1.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	BH18-01	7.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																
Zone	Sample Reference	Sample Depth (m)	SVOC Suite continued	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
1	BH01-01	0.50-1.00		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	<0.3	<0.25	<0.2	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
	BH01-01	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	5.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	3.50-4.00		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	<0.3	<0.25	<0.2	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
3	BH03_02	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	< 150	<0.3	<0.25	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
	BH04_01	7																																
	WS04_01	0.4-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	1.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	4.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	3.20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			SVOC Suite																																
Zone	Sample Reference	Sample Depth (m)	SVOC Suite continued	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
6	BH06_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	< 150	<0.3	<0.25	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
	BH06_03	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	SS07_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_01	2.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	3.50-3.80		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	0.5-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	1.5-1.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																
Zone	Sample Reference	Sample Depth (m)	SVOC Suite continued	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
10	SS10_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	4.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			SVOC Suite																																	
Zone	Sample Reference	Sample Depth (m)	SVOC Suite continued	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
	BH13_01	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_01	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	<0.3	<0.25	<0.2	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
	WS13-01	0.8-1.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	WS13-01	2.2-2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	0.5-1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			SVOC Suite																																
Zone	Sample Reference	Sample Depth (m)	SVOC Suite continued	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
	WS14_01	0-0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	BH14-01	3.00		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	< 150	<0.3	0.71	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
	BH14-01	4.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	6.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	0.10		<0.15	<0.2	<0.15	<0.2	<0.2	<0.15	<0.2	<0.15	<0.2	<0.2	<0.2	<0.2	<0.2	<0.15	<0.2	<0.2	<0.15	<0.15	<0.15	<0.15	<0.1	< 150	<0.3	6.7	<0.2	<0.25	<0.15	<0.3	<0.15	<0.15	<0.15
15	BH15-01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16																																			
	WS16_01	0.5-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_01	1.8-1.9		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.7-0.8		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	0.50		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	3.00		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	HP17_01	0.6-0.7		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	0.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	1.2-1.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18																																			
	BH18-02	2.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	3.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			BTEX Suite								VOCs															
Zone	Sample Reference	Sample Depth (m)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform
1	BH01-01	0.50-1.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH01-01	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH02-02	0.60	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH02-02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH02-02	5.00	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH02-03	3.50-4.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
3	BH03_02	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS04_01	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH05_01	4.00	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00																								
	BH05_03	0.50	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH05_03	3.20	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			BTEX Suite								VOCs																
Zone	Sample Reference	Sample Depth (m)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform
6	BH06_01	0.5	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0	-	-	-	-	-	-	-	-	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	BH06_02	5.0	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0																									
	BH06_03	4.0	-	-	-	-	-	-	-	-	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
7	SS07_01	0-0.1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1																									
	WS07_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH09_01	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH09_02	3.50-3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.25	<0.25	<0.25
	BH09_03	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	0.036	<0.025	<0.025
	HP09_01	0.5-0.6	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS09_01	1.5-1.6	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			BTEX Suite								VOCs															
Zone	Sample Reference	Sample Depth (m)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform
10	SS10_01	0-0.1	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2	< 0.250	< 0.250	< 0.250	< 0.250	< 0.500	< 0.250	< 0.250	< 0.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH11_02	1.0	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0																								
	BH11_03	1.50-2.50	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH11_03	4.00-5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0	-	-	-	-	-	-	-	-	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	BH12_01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2	-	-	-	-	-	-	-	-	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
	WS12-01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			BTEX Suite								VOCs																
Zone	Sample Reference	Sample Depth (m)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform
13	BH13_01	0.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH13_01	2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH13_02	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH13_03	2.5	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS13-01	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	2.2-2.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS13-02	0.5-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
14	WS14_01	0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH14-01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH14-01	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			BTEX Suite								VOCs																
Zone	Sample Reference	Sample Depth (m)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform
15	BH15-01	0.10	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH15-01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
16	BH16_01	0.50	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH16_01	1.00	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS16_01	0.5-0.6	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	0.25	<0.025	<0.025
	WS16_01	1.8-1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	WS16_02	0.7-0.8	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	BH17_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH17_01	3.00	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	< 25	<0.025	<0.025
	HP17_01	0.6-0.7	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5	-	-	-	-	-	-	-	-	<0.025	<0.025	0.028	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	0.56	<0.025	<0.025
	WS17_02	0.6	< 0.025	< 0.025	< 0.025	< 0.025	< 0.05	< 0.025	< 0.025	< 0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5																									
18	BH18-01	1.2-1.5	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.25	<0.25	<0.25
	BH18-01	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0	-	-	-	-	-	-	-	-	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
	BH18-02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																										
Zone	Sample Reference	Sample Depth (m)	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane
1	BH01-01	0.50-1.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH01-01	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH02-02	0.60	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH02-02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH02-02	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH02-03	3.50-4.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
3	BH03_02	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS04_01	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH05_01	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH05_03	3.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																											
Zone	Sample Reference	Sample Depth (m)	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane
6	BH06_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25
	BH06_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25
7	SS07_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH09_01	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	< 25	< 25	< 25	< 25
	BH09_02	3.50-3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20	<0.25	<0.25	<0.25	0.39	<0.25	0.45	<0.25	0.3	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.25	<0.25	<0.25	<0.25
	BH09_03	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.034	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	HP09_01	0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.029	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS09_01	1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																										
Zone	Sample Reference	Sample Depth (m)	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	1,3 - Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane
10	SS10_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH11_02	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH11_03	4.00-5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25
	BH12_01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	<0.25	<0.25	<0.25
	WS12-01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																										
Zone	Sample Reference	Sample Depth (m)	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane
13	BH13_01	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH13_01	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH13_02	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH13_03	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS13-01	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	2.2-2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS13-02	0.5-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
14	WS14_01	0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH14-01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH14-01	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																										
Zone	Sample Reference	Sample Depth (m)	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane
	BH15-01	0.10	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	**64**	**2.8**	<0.025	<0.025	**3.8**	<0.025
15	BH15-01	0.50																										
	BH15-01	1.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH16_01	0.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH16_01	1.00																										
	BH16_01	3.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
16																												
	WS16_01	0.5-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.31	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS16_01	1.8-1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS16_02	0.7-0.8																										
	BH17_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00	<0.025	<0.025	<0.025	<0.025	**0.057**	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH17_01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
17	HP17_01	0.6-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	WS17_02	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	1.2-1.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.25	<0.25	<0.25	<0.25
	BH18-01	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	BH18-01	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	<0.025	<0.025	<0.025
	BH18-02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																			TICs - with estimated concentrations mg/kg							
Zone	Sample Reference	Sample Depth (m)	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
1	BH01-01	0.50-1.00	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH01-01	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH01-01	2.50-3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	BH02-01	0.60	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH02-02	0.60	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH02-02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-02	2.00	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH02-02	5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH02-03	2.50	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH02-03	3.50-4.00	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
3	BH03_02	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH03_02	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	BH04_01	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH04_01	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_01	0.4-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	WS04_01	1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	0.2-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS04_02	2.7-3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	BH05_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_01	1.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH05_01	4.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_02	2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH05_03	1.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH05_03	3.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																			TICs - with estimated concentrations mg/kg								
Zone	Sample Reference	Sample Depth (m)	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
6	BH06_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
	BH06_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	4.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
7	SS07_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS07_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS07_01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	HP08_01	0.05-0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP08_01	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9	BH09_01	1	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	BH09_01	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_02	0.60	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 50	< 25	-	-	-	-	-	-	-	-
	BH09_02	3.50-3.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_03	0.80-1.20	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
	BH09_03	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	2.0-2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	HP09_01	0.5-0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_01	1-1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS09_01	0.3-0.4	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	WS09_01	1.5-1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																			TICs - with estimated concentrations mg/kg								
Zone	Sample Reference	Sample Depth (m)	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
10	SS10_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_02	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_03	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_04	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_05	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_06	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_07	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_08	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_09	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS10_10	0.1-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11	BH11_01	1.5-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_01	4.5-5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH11_02	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH11_03	1.50-2.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH11_03	4.00-5.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	BH12_01	1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_01	2.0	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
	BH12_01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.30-1.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	1.50-2.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH12_02	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_01	0-0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_02	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
	WS12-01	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS12-01	2.8-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																			TICs - with estimated concentrations mg/kg								
Zone	Sample Reference	Sample Depth (m)	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
13	BH13_01	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	BH13_01	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_02	1.0-1.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	BH13_02	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH13_03	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	BH13_03	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP13_01	0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	WS13-01	0.8-1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-01	2.2-2.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	WS13-02	0.5-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-02	1.8-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	0.3-0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-03	1.2-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.6-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-04	1-1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS13-05	1.2	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
14	WS14_01	0-0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	1	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH14-01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH14-01	4.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH14-01	6.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

			VOCs																			TICs - with estimated concentrations mg/kg							
Zone	Sample Reference	Sample Depth (m)	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene	1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
15	BH15-01	0.10	<0.025	**92**	<0.025	**0.64**	<0.025	<0.025	**11**	<0.025	**53**	**0.45**	<0.025	<0.025	**0.47**	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	**0.072**	**0.885**	**0.5**	**0.162**	**0.519**	**0.477**	**0.103**	**0.245**
	BH15-01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH15-01	1.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
16	BH16_01	0.50	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH16_01	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH16_01	3.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	WS16_01	0.5-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	-	-	-	-	-	-	-	-
	WS16_01	1.8-1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS16_02	0.4-0.6	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	WS16_02	0.7-0.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	BH17_01	0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH17_01	1.00	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH17_01	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP17_01	0.2-0.35	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	HP17_01	0.6-0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_01	0.4-0.5	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	0.13	<0.025	0.21	0.063	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.05	<0.025	-	-	-	-	-	-	-	-
	WS17_02	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	WS17_02	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	BH18-01	1.2-1.5	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.5	<0.25	-	-	-	-	-	-	-	-
	BH18-01	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-01	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	2.0	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.5	<0.025	-	-	-	-	-	-	-	-
	BH18-02	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	BH18-02	5.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All soil results are presented in mg/kg

B5: Zoned Results of Chemical Analysis of Groundwater Results

Sample Reference	Analysis	Arsenic (Dissolved)	Barium (Dissolved)	Beryllium (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Chromium (Hexavalent)	Copper (Dissolved)	Lead (Dissolved)	Mercury (Dissolved)	Nickel (Dissolved)	Selenium (Dissolved)	Vanadium (Dissolved)	Zinc (Dissolved)	Ammoniacal Nitrogen as N	Ammoniacal Nitrogen as NH4	pH	Sulphate as SO4
BH01_01		< 0.005	-	-	0.12	< 0.001	0.005	-	< 0.005	< 0.005	< 0.00005	0.02	0.007	-	< 0.005	1.1	1.4	7.8	-
BH02_01		< 0.005	-	-	0.042	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	0.17	0.22	7.1	-
BH02_02		< 0.005	-	-	0.033	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	0.007	< 0.005	-	0.012	0.09	0.11	6.5	-
BH02_03		< 0.005	-	-	0.039	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	0.006	< 0.005	-	< 0.005	0.17	0.22	6.6	-
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		< 0.005	-	-	0.11	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	0.011	-	-	6.9	-
BH03_03		< 0.005	0.046	< 0.001	0.14	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	< 0.005	0.014	2.1	2.7	7.8	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		< 0.005	-	-	0.024	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	7.4	-
BH05_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-
BH05_03		< 0.005	-	-	0.079	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	0.011	-	-	7.1	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		< 0.005	-	-	0.16	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	7.4	-
BH06_03		< 0.005	-	-	0.056	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	7.3	-
BH09_01		< 0.005	-	-	0.1	< 0.001	< 0.005	-	0.005	< 0.005	< 0.00005	0.005	0.015	-	0.008	-	-	7.2	-
BH09_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.6	-
BH09_03		0.14	-	-	0.12	< 0.001	< 0.005	-	< 0.005	0.006	< 0.00005	< 0.005	0.01	-	0.017	0.12	0.16	7.1	-
BH09_04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-
BH11_01		< 0.005	-	-	0.059	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	0.006	< 0.005	-	0.02	-	-	6.7	-
BH11_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-
BH11_03		< 0.005	-	-	0.035	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	0.008	< 0.005	-	0.021	-	-	6.8	-
BH12_01		0.076	0.073	< 0.001	0.16	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	0.005	< 0.005	< 0.005	< 0.005	-	-	7.2	-
BH12_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	
BH13_01		< 0.005	-	-	0.036	< 0.001	< 0.005	< 0.01	< 0.005	< 0.005	< 0.00005	0.009	< 0.005	-	0.007	-	-	6.7	-
BH13_02		< 0.005	-	-	0.037	< 0.001	0.007	< 0.01	< 0.005	< 0.005	< 0.00005	0.009	< 0.005	-	< 0.005	-	-	6.6	170
BH13_03		0.01	-	-	0.018	< 0.001	< 0.005	< 0.01	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	7.6	-
BH14_01		< 0.005	-	-	0.029	< 0.001	0.006	-	< 0.005	< 0.005	< 0.00005	0.013	0.038	-	0.007	-	-	6.6	-
BH15_01		< 0.005	-	-	0.04	< 0.001	0.011	-	< 0.005	< 0.005	< 0.00005	0.007	0.021	-	0.008	-	-	6.7	-
BH16_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-
BH17_01		0.009	-	-	0.046	< 0.001	< 0.005	-	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	7.1	-
BH18_01		< 0.005	-	-	0.051	< 0.001	< 0.005	< 0.01	< 0.005	< 0.005	< 0.00005	< 0.005	< 0.005	-	< 0.005	-	-	6.3	-
BH18_02		< 0.005	-	-	0.042	< 0.001	< 0.005	< 0.01	< 0.005	< 0.005	< 0.00005	0.008	< 0.005	-	0.009	-	-	6.2	< 10

All results are presented in mg/l

Sample Reference	* * VPH/BTEX SUITE * *	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	VPH Compounds (C5-C10)	VPH Compounds (C10-C12)	VPH Compounds (C5-C12)	* * EPH SUITE * *	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	EPH (C10-C40)	Glycols
BH01_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.01	-
BH02_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.07	-
BH02_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.03	-
BH02_03		-	-	-	-	-	-	-	-	-	-	-		2.2	0.66	0.25	3.1	-
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH03_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.07	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.05	-
BH05_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH05_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	5	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH06_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	< 0.01	-
BH09_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.04	-
BH09_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.02	-
BH09_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.09	-
BH09_04		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.02	-
BH11_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH11_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.3	-
BH11_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.09	-
BH12_01		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.008	< 0.005	0.029	0.75	9	9.8		110	25	6.3	140	-
BH12_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.9	
BH13_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.17	-
BH13_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.66	-
BH13_03		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH14_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.02	-
BH15_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.04	-
BH16_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.04	Sub-con
BH17_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
BH18_01		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.08	-
BH18_02		-	-	-	-	-	-	-	-	-	-	-		-	-	-	0.04	-

All results are presented in mg/l

Sample Reference	* * PAH SUITE * *	Naphthalene	2-Chloronaphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
BH01_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH02_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH02_02		0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	0.0001
BH02_03		0.0022	-	0.0012	0.0007	0.0033	0.0071	0.0058	0.0003	0.0003	0.0002	0.0003	0.0002	< 0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001	-	0.0217
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH03_03		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002	0.0002
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH05_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH05_03		< 0.0010‡	-	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	ND	ND
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	0.0001
BH06_03		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002	0.0002
BH09_01		0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	0.0001
BH09_02		0.0002	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	0.0002
BH09_03		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH09_04		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH11_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH11_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH11_03		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH12_01		0.0015	<0.02	0.0013	0.0033	0.017	0.025	0.0098	0.0003	0.0007	0.0002	0.0001	0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0367	0.0591
BH12_02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.025	<0.02	<0.025	<0.04	<0.04	<0.04	-	-
BH13_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	ND	ND
BH13_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH13_03		< 0.0010‡	-	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	< 0.0010‡	ND	ND
BH14_01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.025	<0.02	<0.025	<0.04	<0.04	<0.04	-	-
BH15_01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.025	<0.02	<0.025	<0.04	<0.04	<0.04	-	-
BH16_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND
BH17_01		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0001	0.0001
BH18_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_02		< 0.0001	-	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	-	ND

All results are presented in mg/l

Sample Reference	* * SVOC SUITE * *	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate	Bis(2-chloroethylether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene
BH01_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12_01		0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.03	<0.06	<0.02	<0.03	<0.03	<0.06	<0.015	<0.01	<0.015	<0.03	<0.015	<0.01	<0.01
BH12_02		<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.03	<0.06	<0.02	<0.03	<0.03	<0.06	<0.015	<0.01	<0.015	<0.03	<0.015	<0.01	<0.01
BH13_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14_01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.03	<0.06	<0.02	<0.03	<0.03	<0.06	<0.015	<0.01	<0.015	<0.03	<0.015	<0.01	<0.01
BH15_01		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.03	<0.06	<0.02	<0.03	<0.03	<0.06	<0.015	<0.01	<0.015	<0.03	<0.015	<0.01	<0.01
BH16_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All results are presented in mg/l

Sample Reference	* * SVOC SUITE cont * *	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	2-nitroaniline	4-nitroaniline	4-Chloroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Carbazole	3-nitroaniline	Dibenzofuran	Bis (2-ethylhexyl) phthalate	Aniline	Biphenyl	SVOC TIC'S
BH01_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12_01		<0.02	<0.01	<0.03	<0.02	<0.03	<0.02	<0.04	<0.015	<0.02	<0.015	<0.01	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	-
BH12_02		<0.02	<0.01	<0.03	<0.02	<0.03	<0.02	<0.04	<0.015	<0.02	<0.015	<0.01	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	
BH13_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH14_01		<0.02	<0.01	<0.03	<0.02	<0.03	<0.02	<0.04	<0.015	<0.02	<0.015	<0.01	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	ND
BH15_01		<0.02	<0.01	<0.03	<0.02	<0.03	<0.02	<0.04	<0.015	<0.02	<0.015	<0.01	<0.03	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04	<0.04	ND
BH16_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All results are presented in mg/l

Sample Reference	* * CWG SUITE * *	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene
BH01_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_03		< 0.01	0.01	< 0.01	0.1	1.2	1.2	0.33	2.79	< 0.01	< 0.01	0.02	0.15	0.57	0.62	0.37	1.72	0.28	4.24	4.51	< 0.005	< 0.005	< 0.005
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BH03_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_02		< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.02	0.02	< 0.005	< 0.005	< 0.005
BH05_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BH06_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH09_04		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_01		< 0.01	< 0.01	< 0.01	< 0.01	1.4	1.6	0.34	3.35	< 0.01	< 0.01	< 0.01	< 0.01	0.05	0.1	< 0.01	0.15	< 0.01	3.5	3.5	< 0.005	< 0.005	< 0.005
BH11_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_03		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH12_02		< 0.01	< 0.01	< 0.01	< 0.01	0.29	1.4	28	30.02	< 0.01	< 0.01	< 0.01	< 0.01	0.04	0.20	5.5	5.77	< 0.01	35.79	35.79	< 0.005	< 0.005	< 0.005
BH13_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_03		< 0.01	< 0.01	< 0.01	< 0.01	0.07	0.55	11	11.69	< 0.01	< 0.01	< 0.01	< 0.01	0.02	0.11	3	3.11	< 0.01	14.8	14.8	< 0.005	< 0.005	< 0.005
BH14_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH15_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH16_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH17_01		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.005	< 0.005
BH18_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH18_02		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

All results are presented in mg/l

Sample Reference	* * VOC SUITE * * cont	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Vinyl Chloride	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Chloroform	1,1,1-Trichloroethane	1,2-Dichloroethane	Benzene	Carbon Tetrachloride
BH01_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	0.005	0.024	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH02_02		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH02_03		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	0.008	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH03_03		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	0.002	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH05_02		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH05_03		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH06_03		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH09_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH09_02		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH09_03		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH09_04		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH11_01		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_02		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH11_03		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH12_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH12_02		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	0.006	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH13_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_02		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH13_03		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH14_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH15_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH16_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH17_01		< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	0.004	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH18_01		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
BH18_02		-	-	-	-	-	< 0.01	< 0.001	< 0.001	< 0.001	< 0.025	< 0.050	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

All results are presented in mg/l

Sample Reference	* * VOC SUITE * * cont	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	Dibromochloromethane	Tetrachloroethene	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	o-Xylene	1,1,2,2 Tetrachloroethane	1,3,5 Trimethylbenzene	1,2,4 Trimethylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	1,2 Dichlorobenzene	VOC TIC's
BH01_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH02_01		0.016	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH02_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH02_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH03_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH03_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH03_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH04_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH05_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH05_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH05_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH06_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH06_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH06_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH09_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH09_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH09_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH09_04		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH11_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH11_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH11_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH12_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.003	< 0.001	< 0.001	< 0.001	0.004	0.015	< 0.001	0.008	< 0.001	< 0.001	0.024	< 0.001	< 0.001	< 0.001	-
BH12_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
BH13_01		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH13_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH13_03		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH14_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND
BH15_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	ND
BH16_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH17_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH18_01		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-
BH18_02		< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-

All results are presented in mg/l

APPENDIX C: COMPARISON OF REFERENCE DATA AND SURRENDER DATA

C1 to C8: Comparison of Groundwater Analysis Reference and Surrender Data

Table C1: Zone 1 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)								
	Borehole	depth (m)	pH	NH4	As	Cd	Cr	Cu	Pb	Hg	Ni	Se	Zn
SURRENDER ENVIRON	**BH01_01**	0.5-1.0	8.4	150	14	0.5	18	35	22	0.6	34	<2.5	95
		1.5-2.0	8	42	-	-	-	-	-	-	-	-	-
		2.5-3.0	7.6	52	4.7	0.5	14	50	53	0.6	69	<2.5	190
	Min		7.6	42	4.7	0.5	14	35	22	0.6	34	<2.5	95
	Max		8.4	150	14	0.5	18	50	53	0.6	69	<2.5	190
	Average		8	81.33	9.35	0.5	16	42.5	37.5	0.6	51.5	<2.5	142.5
	n		3	3	2	2	2	2	2	2	2	2	2
	t		2.92	2.92	6.31	6.31	6.31	6.31	6.31	6.314	6.31	6.31	6.314
	s		0.4	59.68	6.58	0	2.83	10.6	21.9	0	24.7	-	67.18
	95%ile		8.674	181.9	38.7	0.5	28.6	89.9	135	0.6	162	-	442.4
REFERENCE NAT. SOL	**BH1**	1	10.85	22.1	14	1	69	135	110	1	34	0.9	135
		2	6.9	10.4	6	0.2	87	39	15	1	47	1.3	100
		3	7.38	8.8	7	0.2	87	37	15	1	51	0.7	94
	Min		6.9	8.8	6	0.2	69	37	15	1	34	0.7	94
	Max		10.85	22.1	14	1	87	135	110	1	51	1.3	135
	Average		8.377	13.77	9	0.47	81	70.3	46.7	1	44	0.97	109.7
	n		3	3	3	3	3	3	3	3	3	3	3
	t		2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
	s		2.155	7.261	4.36	0.46	10.4	56	54.8	0	8.89	0.31	22.14
	95%ile		12.01	26.01	16.3	1.25	98.5	165	139	1	59	1.48	147

Table C2: Zone 2 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)								
	Borehole	**depth (m)**	**pH**	**As**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Zn**
SURRENDER ENVIRON	**BH02_01**	0.6	7.9	13	0.5	10	28	27	0.6	12	<2.5	35
	BH02_02	0.6	9.7	-	-	-	-	-	-	-	-	-
		1	-	4.6	0.5	25	33	24	0.6	36	<2.5	77
		2	7	5.9	0.5	24	39	37	0.6	52	<2.5	110
		5	7.2	-	-	-	-	-	-	-	-	-
	BH02_03	0.6	6.5	-	-	-	-	-	-	-	-	-
		2.5	6.1	-	-	-	-	-	-	-	-	-
		3.5-4.0	7.1	3.7	0.5	16	8.6	10	0.6	22	<2.5	73
	Min		6.1	3.7	0.5	10	8.6	10	0.6	12	<2.5	35
	Max		9.7	13	0.5	25	39	37	0.6	52	<2.5	110
	Average		7.357	6.8	0.5	18.75	27.15	24.5	0.6	30.5	<2.5	73.75
	n		7	4	4	4	4	4	4	4	4	4
	t		1.943	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s		1.177	4.231	0	7.089	13.16	11.15	0	17.39	-	30.7
	95%ile		8.222	11.78	0.5	27.09	42.63	37.62	0.6	50.96	-	109.9
REFERENCE Nat. Sol.	**BH2**	1	6.97	16	0.4	80	34	18	1	44	0.6	101
		2	6.8	15	0.2	90	34	13	1	49	0.6	101
		3	7.76	40	0.5	84	36	13	1	45	0.7	87
		4	6.8	15	0.7	65	33	13	1	38	0.8	81
		5	7.45	12	0.3	85	36	14	1	45	0.6	86
		6	7.11	14	0.2	85	37	14	1	46	0.6	95
Ger. & Mil	**BH5**	1	6.96	16	0	26	-	47	0	-	-	-
		2	-	-	-	-	-	-	-	-	-	-
	Min		6.8	12	0	26	33	13	0	38	0.6	81
	Max		7.76	40	0.7	90	37	47	1	49	0.8	101
	Average		7.121	18.29	0.329	73.57	35	18.86	0.857	44.5	0.65	91.83
	n		7	7	7	7	6	7	7	6	6	6
	t		1.943	1.943	1.943	1.943	2.015	1.943	1.943	2.015	2.015	2.015
	s		0.359	9.673	0.229	22.43	1.549	12.54	0.378	3.619	0.084	8.4
	95%ile		7.385	25.39	0.497	90.04	36.27	28.06	1.135	47.48	0.719	98.74

Table C3: Zone 6 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				mg/kg											
	Borehole	**depth (m)**	**pH**	**As**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Zn**	**SVOC**	**TPH**	**VOCs**
SURRENDER ENVIRON	**BH06_01**	0.5	7.8	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_02	1	7.5	7	0.5	28	23	10	0.6	33	<2.5	67	-	-	<0.025
		5	7	-	-	-	-	-	-	-	-	-	-	-	-
	BH06_03	0.5	7.6	-	-	-	-	-	-	-	-	-	<0.3	-	-
		2		6	0.5	29	23	21	0.6	24	<2.5	72	-	-	-
		4	7.3	-	-	-	-	-	-	-	-	-	-	32	<0.025
	Min		7	6	0.5	28	23	10	0.6	24	<2.5	67	<0.3	32	<0.025
	Max		7.8	7	0.5	29	23	21	0.6	33	<2.5	72	<0.3	32	<0.025
	Average		7.44	6.5	0.5	28.5	23	15.5	0.6	28.5	<2.5	69.5	<0.3	32	<0.025
	n		5	2	2	2	2	2	2	2	2	2	1	1	2
	t		2.132	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	-	-	6.314
	s		0.305	0.707	0	0.707	0	7.778	0	6.364	-	3.536	-	-	-
	95%ile		7.731	9.657	0.5	31.66	23	50.23	0.6	56.91	-	85.29	-	-	-
REFERENCE Nat. Sol.	**BH18**	1	8.64	-	-	-	-	-	-	-	-	-	0	2180	0.022
		2	8.13	-	0.2	-	-	-	-	-	-	-	0	714	0.071
		3	8.38	8	-	58	19	9	1	25	0.2	58	0	114	0
	Min		8.13	8	0.2	58	19	9	1	25	0.2	58	0	114	0
	Max		8.64	8	0.2	58	19	9	1	25	0.2	58	0	2180	0.071
	Average		8.383	8	0.2	58	19	9	1	25	0.2	58	0	1002.7	0.031
	n		3	1	1	1	1	1	1	1	1	1	3	3	3
	t		2.92	-	-	-	-	-	-	-	-	-	2.92	2.92	2.92
	s		0.255	-	-	-	-	-	-	-	-	-	0	1062.8	0.0363
	95%ile		8.813	-	-	-	-	-	-	-	-	-	0	2794.4	0.0923

Table C4: Zone 9 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)												
	Borehole	**depth (m)**	**pH**	**NH4**	**As**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Zn**	**Phenols**	**TPH**	**VOC**
SURRENDER ENVIRON	**BH09_01**	1	10.1	-	710	2.1	57	2900	1300	8.1	150	20	680	0.1	-	-
		2.2	6.5	-	160	1.3	20	690	140	0.8	24	2.8	1200	-	-	-
	BH09_02	0.6	7.9	<40	-	-	-	-	-	-	-	-	-	-	-	-
		3.5-3.8	5.9	-	16	0.5	16	34	26	0.6	20	2.5	64	-	-	-
	BH09_03	0.8-1.2	7.6	-	240	1.2	25	680	260	1.5	36	4.2	770	-	-	0.011
		3	7	<40	-	-	-	-	-	-	-	-	-	-	-	-
	BH09_04	0.8-1.0	6.9	-	44	1.4	63	990	550	0.6	66	2.5	840	-	-	-
		2.0-2.5	7.2	-	38	0.7	32	530	270	0.6	42	2.5	420	0.1	-	0.003
	HP09_01	0.5-0.6	7.3	-	100	2.9	110	1600	5800	0.9	91	2.5	1100	-	-	-
		1.0-1.2	6.8	-	-	-	-	-	-	-	-	-	-	-	-	-
	HP09_02	0-0.1	6.5	-	34	1.4	92	89	76	0.6	20	2.5	630	-	-	-
		0.7	7.1	-	-	-	-	-	-	-	-	-	-	-		-
	WS09_01	0.3-0.4	6.9	-	-	-	-	-	-	-	-	-	-	-	260	-
		1.5-1.6	6.5	-	17	0.5	27	130	100	0.6	35	2.5	210	-	-	-
	Min		5.9	<40	16	0.5	16	34	26	0.6	20	<2.5	64	0.1	260	0.003
	Max		10.1	<40	710	2.9	110	2900	5800	8.1	150	20	1200	0.1	260	0.011
	Average		7.157	<40	151	1.33	49.11	849.2	947	1.59	53.78	4.667	657.1	0.1	260	0.007
	n		14	2	9	9	9	9	9	9	9	9	9	2	1	2
	t		1.771	6.31	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	6.314	-	6.314
	s		0.984		222.8	0.78	33.74	915.5	1862	2.46	42.97	5.777	378.5	0	-	0.006
	95%ile		7.623		289.1	1.82	70.03	1417	2101	3.11	80.42	8.248	891.8	0.1	-	0.033
REFERENCE Nat. Sol.	**BH4**	1	8.22	8.6	321	13	131	1800	428	1	40	1.8	3894	2	228	0.142
		2	7.15	8.8	443	18	156	3347	793	2	35	1.5	4944	2	155	0
		3	7.1	9.5	544	22	167	8581	526	1	29	0.8	5842	2	1044	0
		4	6.34	22.6	175	7	103	2227	265	1	28	1.2	1226	3	3930	0.177
		5	6.08	20.3	70	2	76	572	95	1	27	0.4	552	2	1497	0
		6	6.88	16	36	0.9	83	279	48	1	28	0.2	324	2	1162	0
		7	8.2	8.7	8	0.2	87	21	12	1	28	0.2	77	2	200	0
	BH5	1	-	-	-	-	-	-	-	-	-	-	-	2	786	0.139
		2	-	-	-	-	-	-	-	-	-	-	-	2	2439	0
		3	-	-	-	-	-	-	-	-	-	-	-	2	117	0
		4	-	-	-	-	-	-	-	-	-	-	-	2	166	0
Ger. & Mil.	**BH17**	1	8.46	-	280	0	59	-	455	1.4	-	-	-	-	-	-
		2	6.61	-	-	-	23	-	-	-	-	-	-	-	-	-
		3	7.27	-	10	0	19	-	34	0	-	-	-	-	-	-
	Min		6.08	8.6	8	0	19	21	12	0	27	0.2	77	2	117	0
	Max		8.46	22.6	544	22	167	8581	793	2	40	1.8	5842	3	3930	0.177
	Average		7.231	13.5	209.7	7.01	90.4	2404	295	1.04	30.71	0.871	2408	2.091	1066	0.042
	n		10	7	9	9	10	7	9	9	7	7	7	11	11	3
	t		1.833	1.94	1.86	1.86	1.833	1.943	1.86	1.86	1.943	1.943	1.943	1.812	1.81	2.92
	s		0.822	6.06	198.4	8.58	50.42	2972	273	0.52	4.889	0.645	2417	0.302	1198	0.072
	95%ile		7.707	18	332.7	12.3	119.6	4586	464	1.37	34.3	1.345	4183	2.256	1720	0.163

Table C5: Zone 12 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)										
	Borehole	**depth (m)**	**pH**	**As**	**Cd**	**Cr**	**Cu**	**Pb**	**Hg**	**Ni**	**Se**	**Zn**	**TPH**	**VOC**
SURRENDER ENVIRON	**BH12_01**	1	8.3	11	<0.5	20	26	17	0.6	7.3	2.5	36	-	-
		2	8.1	-	-	-	-	-	-	-	-	-	23000	<0.025
		4.5	8.6	22	0.5	34	8.2	19	0.6	21	2.5	45	-	-
	BH12_02	1.3-1.5	7.6	10	0.5	22	45	27	0.6	16	2.5	94	-	-
		1.5-2	-	-	-	-	-	-	-	-	-	-	-	-
		3	7.5	10	1	38	25	46	0.6	23	2.5	73	-	-
	SS12_01	0-0.1	7.8	-	-	-	-	-	-	-	-	-	7500	-
	SS12_02	0.2	-	-	-	-	-	-	-	-	-	-	-	-
	SS12_03	0.2	7.9	-	-	-	-	-	-	-	-	-	-	<0.025
	WS12_01	0.5	10.3	-	-	-	-	-	-	-	-	-	-	-
		2.8-3.0	8	-	-	-	-	-	-	-	-	-	-	-
	Min		7.5	10	<0.5	20	8.2	17	0.6	7.3	2.5	36	7500	<0.025
	Max		10.3	22	1	38	45	46	0.6	23	2.5	94	23000	<0.025
	Average		8.233	13.25	0.667	28.5	26.05	27.25	0.6	16.83	2.5	62	15250	<0.025
	n		9	4	4	4	4	4	4	4	4	4	2	2
	t		1.86	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	6.314	6.314
	s		0.846	5.852	0.289	8.851	15.04	13.23	0	6.999	0	26.52	10960.155	-
	95%ile		8.758	20.14	1.006	38.91	43.75	42.81	0.6	25.06	2.5	93.2	64183.5	-
REFERENCE Nat. Sol.	**BH7**	1	-	-	-	-	-	-	-	-	-	-	87	0.167
		2	-	-	-	-	-	-	-	-	-	-	3067	0.193
		3	-	-	-	-	-	-	-	-	-	-	525	0
		4	-	-	-	-	-	-	-	-	-	-	5735	0
		5	-	-	-	-	-	-	-	-	-	-	1208	0
	BH8	1	-	-	-	-	-	-	-	-	-	-	1522	0.186
		2	-	-	-	-	-	-	-	-	-	-	894	0
		3	-	-	-	-	-	-	-	-	-	-	120	0
		4	-	-	-	-	-	-	-	-	-	-	1151	0
		5	-	-	-	-	-	-	-	-	-	-	288	0
	BH9	1	-	-	-	-	-	-	-	-	-	-	9077	0
		2	-	-	-	-	-	-	-	-	-	-	1602	0
		3	-	-	-	-	-	-	-	-	-	-	1154	0
		4	7.46	-	-	-	-	-	-	-	-	-	1373	0
		5	7.64	-	-	-	-	-	-	-	-	-	499	0
	BH10	1	7.7	53	2	30	227	33	1	10	4.38	311	317	0
		2	6.45	36	1	47	58	31	1	21	4.73	113	130	0
		3	5.7	13	0.2	51	27	15	1	22	4.08	74	186	0
		4	5.65	16	0.2	67	23	16	1	25	4.08	75	472	0
		5	6.13	14	0.2	77	30	13	1	27	3.93	91	428	0
Ger & Mil	**BH15**	1	7.79	-	-	34	-	-	-	-	-	-	0	-
		2	5.95	52	0	20	-	89	1.3	-	-	-	-	-
	Min		5.65	13	0	20	23	15	1	10	4.08	74	0	0
	Max		7.79	53	2	77	227	89	1.3	27	4.73	311	9077	0.193
	Average		6.719	30.67	0.6	46.57	73	32.83	1.05	21	4.24	132.8	1420.7143	0.0273
	n		9	6	6	7	5	6	6	5	5	5	21	20
	t		1.86	2.015	2.015	1.943	2.132	2.015	2.015	2.132	2.132	2.132	1.725	1.729
	s		0.915	18.91	0.769	20.42	87.19	28.82	0.122	6.595	0.319	100.9	2181.4234	0.06682
	95%ile		7.286	46.22	1.233	61.57	156.1	56.54	1.151	27.29	4.544	229	2241.8585	0.05313

Table C6: Zone 13 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)													
	Borehole	depth (m)	pH	As	Cd	Cr	Cu	Pb	Hg	Ni	Se	Zn	Cr6+	Phenols	SVOC	TPH	VOC
SURRENDER ENVIRON	**BH13_01**	0.5	7.3	320	1	39	1100	260	1	32	2.5	1100	5	0.1	-	-	0.025
		2	5.2	7.8	0.5	15	19	17	0.6	20	2.5	57	5	-	-	-	
	BH13_02	1.0-1.5	6.9	130	0.8	17	69	56	0.6	13	2.5	68	5	0.1	-	-	0.025
		2	6.5	21	0.5	23	45	85	0.6	25	2.5	87	5	-	-	14	
	BH13_03	0.5	7.3	28	0.5	350	140	94	0.6	30	2.5	600	5	0.1	-	230	0.025
		2.5	7.3	9.8	0.5	19	26	22	0.6	23	2.5	68	5	-	-	-	
	HP13_01	0.7	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	0.025
		0.5	6.4	17	0.5	28	51	52	0.8	47	2.5	110	-	-	<0.3	-	-
	WS13_01	0.8-1.0	7.2	14	0.5	780	48	51	0.6	14	2.5	44	6.5	-	-	470	-
		2.2-2.5	10.2	29	0.5	800	26	23	0.6	5.8	2.5	120	6	-	-	-	0.025
	WS13_02	0.5-1.0	7.7	7.1	0.5	6200	14	17	0.6	10	2.5	43	14	-	-	-	-
		1.8-2.0	8.4	10	0.5	10000	8.9	10	0.6	5.5	2.5	31	16	-	-	-	-
	WS13_03	0.3-0.5	7.9	13	0.5	3400	19	16	0.6	4.5	2.5	37	12	-	-	-	-
		1.2-1.4	8.4	12	0.5	1600	11	24	0.6	15	8.4	39	18	-	-	-	-
	WS13_04	0.6-0.8	9	9.6	0.5	1600	26	22	0.6	5.5	9	41	18	-	-	-	-
		0.3	7.2	4.7	0.5	1600	10	10	0.6	<4	2.5	16	400	-	-	-	-
		1-1.4	7.1	4.9	0.5	1500	10	10	0.6	<4	2.5	16	430	-	-	-	-
	WS13_05	0.3	7.6	370	0.7	60	320	250	1.7	34	5.2	1200	5	-	-	-	-
		0.7-0.8	6.4	36	0.5	38	14	26	0.6	16	2.5	67	5	-	-	-	-
		1.2	6.1	6.1	0.5	15	9.7	18	0.6	9.3	2.5	30	5	-	-	180	0.025
	Min		5.2	4.7	0.5	15	8.9	10	0.6	4.5	<2.5	16	5	0.1	<0.3	14	<0.025
	Max		10.2	370	1	10000	1100	260	1.7	47	9	1200	430	0.1	<0.3	470	<0.025
	Average		7.335	55.26	0.553	1478	103.5	55.95	0.689	18.21	3.29474	198.63	53.64	0.1	<0.3	223.5	<0.025
	n		20	19	19	19	19	19	19	19	19	19	18	3	1	4	5
	t		1.729	1.734	1.734	1.734	1.734	1.734	1.734	1.734	1.734	1.734	1.74	2.92	-	2.353	2.132
	s		1.103	106.1	0.135	2580	252.1	74.29	0.264	12.12	2.00485	359.18	131.7	0	-	188.49	-
	95%ile		7.762	97.49	0.606	2504	203.8	85.5	0.795	23.03	4.09228	341.51	107.6	0.1	-	445.26	-
REFERENCE Nat. Sol.	**BH11**	1	9.19	24	0.9	78	72	20	1	11	0.2	122	1	2	0	2881	0.577
		2	8.8	30	1	82	107	20	1	11	0.2	206	1.1	2	0	3643	0.86
		3	8	21	0.5	87	53	19	1	22	0.3	142	1	2	0	797	0
	BH12	1	11.92	3	0.2	54	6	4	1	4	0.2	13	1	2	0	672	0
		2	9.04	41	0.2	392	27	41	1	20	0.3	68	1	2	0	161	0
	BH13	1	7.75	-	-	-	-	-	1	-	-	-	-	2	0	566	0
		2	7.83	-	-	-	-	-	1	-	-	-	-	2	0	252	0
		3	7.34	-	-	-	-	-	1	-	-	-	-	2	0	108	0
Ger & Mil	**BH13**	1	11.09	-	-	49	-	-	-	-	-	-	0	-	-	-	-
		2	5.98	-	-	19	-	-	-	-	-	-	0	-	-	0	-
		3	6.99	19	0	22	-	48	0	-	-	-	0	-	-	-	-
	BH14	0.8	8.04	4410	0	35	-	1510	16	-	-	-	0	-	-	-	-
		1.4	7.27	-	-	30	-	-	-	-	-	-	0	0	-	-	-
	Min		5.98	3	0	19	6	4	0	4	0.2	13	0	0	0	0	0
	Max		11.92	4410	1	392	107	1510	16	22	0.3	206	1.1	2	0	3643	0.86
	Average		8.403	649.7	0.4	84.8	53	237.4	2.4	13.6	0.24	110.2	0.51	1.78	0	1008.9	0.1796
	n		13	7	7	10	5	7	10	5	5	5	10	9	8	9	8
	t		1.782	1.943	1.943	1.833	2.132	1.943	1.833	2.132	2.132	2.132	1.833	1.86	1.9	1.86	1.895
	s		1.636	1658	0.412	110.8	39.25	561.3	4.789	7.369	0.05477	73.411	0.538	0.67	0	1319	0.3411
	95%ile		9.211	1867	0.703	149	90.42	649.7	5.176	20.63	0.29222	180.19	0.822	2.19	0	1826.7	0.4082

Table C7: Zone 14 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

	Borehole	depth (m)	pH	SVOC	VOC
SURRENDER ENVIRON	**WS14_01**	0-0.2	7.6	-	-
	BH14_01	1	7.1	-	0.025
		3	6.7	5.01	-
		4	-	-	0.025
		6	5.8	-	-
	Min		5.8	5.01	<0.025
	Max		7.6	5.01	<0.025
	Average		6.8	5.01	<0.025
	n		4	1	2
	t		2.353	-	6.314
	s		0.762	-	-
	95%ile		7.696	-	-
REFERENCE Nat.Sol.	**BH16**	1	7.55	0	0
		2	7.63	0	0
		3	7.35	0	0
		4	6.98	0	0
		5	6.28	0	0
		6	7.25	0	0
	Min		6.28	0	0
	Max		7.63	0	0
	Average		7.173	0	0
	n		6	6	6
	t		2.015	2.015	2.015
	s		0.495	0	0
	95%ile		7.58	0	0

Table C8: Zone 16 ~ Comparison of Soil Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/kg)
	Borehole	**depth (m)**	**pH**	**VOC**
SURRENDER ENVIRON	**BH16_01**	0.5	7.7	0.025
		1	8.3	-
		3	8.9	0.025
	WS16_01	0.5-0.6	7.9	0.056
		1.8-1.9	7.7	-
	WS16_02	0.4-0.6	7.7	0.025
		0.7-0.8	7.2	-
	Min		7.2	<0.025
	Max		8.9	0.056
	Average		7.9143	0.03275
	n		7	4
	t		1.943	2.353
	s		0.5429	0.0155
	95%ile		8.313	0.050986
REFERENCE Nat. Sol.	**BH14**	1	7.99	0
		2	8.44	0
		3	8.68	0
	Min		7.99	0
	Max		8.68	0
	Average		8.37	0
	n		3	3
	t		2.92	2.92
	s		0.3503	0
	95%ile		8.9605	0

C9 to C12: Comparison of Soil Analysis Reference and Surrender Data

Table C9: Zone 2 ~ Comparison of Groundwater Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				(mg/l)					
	Borehole	**Date**	**pH**	**Arsenic**	**Cadmium**	**Chromium**	**Lead**	**Mercury**	**TPH**
SURRENDER ENVIRON	BH2_01	2007	7.1	0.005	0.001	0.005	0.005	0.00005	-
	BH2_02	2007	6.5	0.005	0.001	0.005	0.005	0.00005	-
	BH2_03	2007	6.6	0.005	0.001	0.005	0.005	0.00005	4.51
	Min		6.5	<0.005	<0.001	<0.005	<0.005	<0.00005	4.51
	Max		7.1	<0.005	<0.001	<0.005	<0.005	<0.00005	4.51
	Average		6.73	<0.005	<0.001	<0.005	<0.005	<0.00005	4.51
	n		3	3	3	3	3	3	-
	t		2.92	2.92	2.92	2.92	2.92	2.92	-
	s		0.32	-	-	-	-	-	-
	95%ile		7.28	-	-	-	-	-	-
REFERENCE Ger & Mil	BH5	1993	6.35	0	0.01	0	0	0.003	-
	BH5	1995	8.2	0.1	0.1	0.33	0.05	0.05	1
	Min		6.35	0	0.01	0	0	0.003	1
	Max		6.35	0.1	0.01	0.33	0.05	0.003	1
	Average		6.35	0.1	0.01	0.33	0.05	0.003	1
	n		2	2	2	2	2	2	-
	t		6.31	6.314	6.314	6.314	6.314	6.314	-
	s		1.31	0.07071	0.06364	0.2333	0.03536	0.03323402	-
	95%ile		12.2	0.4157	0.29413	1.3718	0.20785	0.151379	-

Table C10: Zone 9 ~ Comparison of Groundwater Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

			(mg/l)					
		Borehole	**Date**	**Arsenic**	**Cadmium**	**Chromium**	**Lead**	**Mercury**	**PAH**
SURRENDER	ENVIRON	BH9_01	2007	0.005	0.001	0.005	0.005	0.00005	0.0001
		BH9_02	2007	-	-	-	-	-	0.0002
		BH9_03	2007	0.14	0.001	0.005	0.006	0.00005	-
		Min		<0.005	<0.001	<0.005	<0.005	<0.00005	0.0001
		Max		0.14	<0.001	<0.005	0.006	<0.00005	0.0002
		Average		0.0725	<0.001	<0.005	0.0055	<0.00005	0.00015
		n		2	2	2	2	2	2
		t		6.314	6.314	6.314	6.314	6.314	6.314
		s		0.095459	-	-	0.00071	-	7.1E-05
		95%ile		0.498695	-	-	0.00866	-	0.00047
REFERENCE	Ger. & Mill.	BH17s	1993	-	-	-	-	-	0
		BH17s	1995	1.08	0.1	0.28	6.14	0.06	-
		Min		1.08	0.1	0.28	6.14	0.06	0
		Max		1.08	0.1	0.28	6.14	0.06	0
		Average		1.08	0.1	0.28	6.14	0.06	0
		n		1	1	1	1	1	1
		t		-	-	-	-	-	-
		s		-	-	-	-	-	-
		95%ile		-	-	-	-	-	-

Table C11: Zone 12 ~ Comparison of Groundwater Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

			VOC's (ug/l)											PAH's (ug/l)														(mg/l)										
	Borehole	**Date**	**1,1 dichloroethene**	**1,2 dichloroethane**	**1,1,1 trichloroethane**	**trichloroethene**	**tetrachloroethene**	**benzene**	**toluene**	**chloroform**	**bromodichloromethane**	**dibromochloromethane**	**chlorobenzene**	**naphthalene**	**acenaphthene**	**phenanthrene**	**anthracene**	**fluoranthene**	**pyrene**	**benz(a)anthracene**	**chrysene**	**benzo(b)flouranthene**	**benzo(k)flouranthene**	**benzo(a)pyrene**	**indeno(123,cd)pyrene**	**dibenz(a,h)anthracene**	**benzo(hgi)perylene**	**pH**	**As**	**Cd**	**Cr**	**Pb**	**Hg**	**PAH**	**Phenol**	**Cu**	**Ni**	**Zn**
SURRENDER ENVIRON	BH12_01	2007	1	1	1	1	1	1	3	1	1	1	1	1.5	3	25	9.8	0.3	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	7.2	0.1	0.001	0.005	0.005	0	0.06	0	0.005	0.005	0.005
	BH12_02	2007	-	-	-	-	-	-	-	-	-	-	-	0.1	0	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	6.5	-	-	-	-	-	-	-	-	-	-
	Min		1	1	1	1	1	1	3	1	1	1	1	0.1	0	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	6.5	0.1	0.001	0.005	0.005	0	0.06	0	0.005	0.005	0.005
	Max		1	1	1	1	1	1	3	1	1	1	1	1.5	3	25	9.8	0.3	0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	7.2	0.1	0.001	0.005	0.005	0	0.06	0	0.005	0.005	0.005
	Average		1	1	1	1	1	1	3	1	1	1	1	0.8	2	13	5	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.85	0.1	0.001	0.005	0.005	0	0.06	0	0.005	0.005	0.005
	n		1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
	t		-	-	-	-	-	-	-	-	-	-	-	6.3	6	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.31	-	-	-	-	-	-	-	-	-	-	-
	s		-	-	-	-	-	-	-	-	-	-	-	1	2	18	6.9	0.1	0.4	0.1	0	0	0	0	0	0	0	0	0.49	-	-	-	-	-	-	-	-	-	-	-
	95%ile		-	-	-	-	-	-	-	-	-	-	-	5.2	12	91	36	0.8	2.3	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	9.06	-	-	-	-	-	-	-	-	-	-	-
REFERENCE Appl. Geo.	BH1	23/06/1992	10	10	10	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-	-	0.02	-	-	-	-	-	-	-
		24/07/1992	5	5	5	5	5	7.2	1.6	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.7	-	-	0.02	-	-	-	-	-	-	-
		25/08/1992	5	5	5	5	5	1	120	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.7	-	-	0.02	-	-	-	-	-	-	-
Ger. & Mill	BH15s	1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.17	-	-	-	-	-	0	0	-	-	-
	BH15d	1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.48	0	0	0	0	0	-	-	-	-	-
	BH15s	1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	0.6	0.1	0.1	2.78	0.1	-	-	-	-	-
	BH15d	1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	0.1	0.1	0.1	0.1	0.1	-	-	-	-	-
ENVIRON	BH15s	2001	-	-	-	-	-	-	-	-	-	-	-	0.1	0	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	6.9	0	0.001	0.01	0.01	0	0.1	0	0.005	0.005	0.029
	BH15d	2001	-	-	-	-	-	-	-	-	-	-	-	0.1	0	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	5.5	0	0.001	0.01	0.01	0	0.1	0	0.005	0.008	0.035
	Min		5	5	5	5	5	1	1	5	5	5	1	0.1	0	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	4.7	0	0	0	0	0	0	0	0.005	0.005	0.029
	Max		10	10	10	5	5	7.2	120	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	8.17	0.6	0.1	0.1	2.78	0.1	0.1	0	0.005	0.008	0.035
	Average		6.67	6.7	7	5	5	3.1	41	5	5	5	1	1.7	2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	6.13	0.1	0.04	0.035	0.58	0	0.07	0	0.005	0.007	0.032
	n		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	9	5	5	8	5	5	3	3	2	2	2
	t		2.92	2.9	3	3	3	2.9	2.9	3	3	3	3	2.9	3	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	1.86	2.1	2.132	1.895	2.132	2.1	2.92	2.9	6.314	6.314	6.314
	s		2.89	2.9	3	0	0	3.6	69	0	0	0	0	2.8	3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.01	0.3	0.054	0.041	1.231	0	0.06	0	0	0.002	0.004
	95%ile		11.5	12	12	5	5	9.1	156	5	5	5	1	6.5	7	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.75	0.4	0.092	0.062	1.753	0	0.16	0	0.005	0.016	0.051

Table C12: Zone 13 ~ Comparison of Groundwater Analysis Reference and Surrender Data

Surrender Data maximum concentration exceeds Reference Data maximum concentration

				VOC's (ug/l)											PAH's (ug/l)														(mg/l)									
		Borehole	Date	1,1 dichloroethene	1,2 dichloroethane	1,1,1 trichloroethane	trichloroethene	tetrachloroethene	benzene	toluene	chloroform	bromodichloromethane	dibromochloromethane	chlorobenzene	naphthalene	acenaphthene	phenanthrene	anthracene	fluoranthene	pyrene	benz(a)anthracene	chrysene	benzo(b)fluoranthene	benzo(k)fluoranthene	benzo(a)pyrene	indeno(123,cd)pyrene	dibenz(a,h)anthracene	benzo(hgi)perylene	pH	SO4	As	Cd	Cr	Cr6	Pb	Hg	PAH	TPH
SURRENDER	ENVIRON	BH13_01		-	-	-	-	-	-	-	-	-	-	-	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	6.7	-	0.005	0.001	0.005	0.01	0.005	0.00005	0	-
		BH13_02		1	1	1	1	1	1	1	1	1	1	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	6.6	170	0.005	0.001	0.007	0.01	0.005	0.00005	0	-
		BH13_03		1	1	1	1	1	1	1	1	1	1	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	7.6	-	0.01	0.001	0.005	0.01	0.005	0.00005	0	14.8
		Min		1	1	1	1	1	1	1	1	1	1	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	6.6	170	0.005	0.001	0.005	0.01	0.005	0.00005	0	14.8
		Max		1	1	1	1	1	1	1	1	1	1	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	7.6	170	0.01	0.001	0.007	0.01	0.005	0.00005	0	14.8
		Average		1	1	1	1	1	1	1	1	1	1	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	6.967	170	0.00667	0.001	0.0057	0.01	0.005	0.00005	0	14.8
		n		2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	1
		t		6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	-	2.92	2.92	2.92	2.92	2.92	2.92	2.92	-
		s		0	0	0	0	0	0	0	0	0	0	0	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	0.551	-	0.00289	0	0.0012	0	0	0	0	-
		95%ile		1	1	1	1	1	1	1	1	1	1	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	7.895	-	0.01153	0.001	0.0076	0.01	0.005	0.00005	0	-
REFERENCE	Appl. Geo.	BH2	23/06/1992	10	10	10	11	5	1	6	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	20	5	3.3	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	-	0.02	0.02	-	-	-	-
			25/08/1992	5	5	5	20	5	1	230	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	-	0.02	0.05	-	-	-	-
		BH3	23/06/1992	10	10	10	5	5	1	1	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6.9	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	-	1.1	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	130	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	0.84	0.05	-	-	-	-
		BH4	23/06/1992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	1	1.2	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	-	0.15	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	130	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	-	-	-	0.06	0.05	-	-	-	-
		BH5	23/06/1992	10	10	10	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	1	1	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6.3	-	-	-	0.07	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-	-	0.04	0.05	-	-	-	-
		BH6	23/06/1992	10	10	10	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	4.6	1.3	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6	-	-	-	0.02	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	9	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	-	0.02	0.05	-	-	-	-
		BH7	23/06/1992	10	10	10	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	4.6	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	-	0.02	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	-	0.02	0.05	-	-	-	-
		BH8	23/06/1992	10	10	10	5	5	1	1	5	16	42	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.4	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	5	5	1	1	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	8.7	-	-	-	0.35	0.02	-	-	-	-
			25/08/1992	5	5	5	5	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-	-	0.13	0.05	-	-	-	-
		BH9	23/06/1992	10	10	10	16	5	1	1	5	5	5	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	-	0.02	0.05	-	-	-	-
			24/07/1992	5	5	5	27	5	1	1	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6.5	-	-	-	0.09	0.02	-	-	-	-
			25/08/1992	5	5	5	36	5	1	130	5	5	5	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6.6	-	-	-	0.09	0.05	-	-	-	-
	Ger. & Mill.	BH13s	1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.99	68	0	0	0	0	0	0	-	-
		BH14s	1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.29	78	0.2	0	0	0	0	0	-	-
		BH14d	1993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.53	-	-	-	-	0	0	0	-	0.9
		BH13s	1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BH14s	1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.6	21	1.13	0.1	0.1	1	9.57	0.08	-	1
		BH14d	1995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	45	0.14	0.1	0.1	1	0.2	0.05	-	1
	ENVIRON	BH14s	2001	-	-	-	-	-	-	-	-	-	-	-	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	6.6	15	1.3	0.01	0.01	-	0.01	0.00005	0.2	-
		BH14d	2001	-	-	-	-	-	-	-	-	-	-	-	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	5.8	23	0.005	0.001	0.01	-	0.01	0.00005	0.1	-
		BH7	2001	-	-	-	-	-	-	-	-	-	-	-	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	6.3	20	0.005	0.001	0.01	-	0.01	0.00005	0.1	-
		Min		5	5	5	5	5	1	1	5	5	5	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	5.8	15	0	0	0	0	0	0	0.1	0.9
		Max		10	10	10	36	5	4.6	230	5	16	42	1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	8.7	78	1.3	0.1	1.1	1	9.57	0.08	0.2	1
		Average		6.522	6.5217	6.522	9.348	5	1.413	28.37	5	5.478	6.609	1	3.3667	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	3.367	6.794	38.6	0.39714	0.03029	0.1106	0.102	1.225	0.0162688	0.133	0.96667
		n		23	23	23	23	23	23	23	23	23	23	23	9	9	9	9	9	9	9	9	9	9	9	9	9	9	32	7	7	7	31	29	8	8	3	3
		t		1.717	1.717	1.717	1.717	1.717	1.717	1.717	1.717	1.717	1.717	1.717	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.695	1.94	1.943	1.943	1.699	1.701	1.895	1.895	2.92	2.92
		s		2.352	2.3524	2.352	8.574	0	1.114	62.24	0	2.294	7.715	0	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	0.734	25.5	0.56605	0.04775	0.2415	0.249	3.3726	0.0311279	0.058	0.05774
		95%ile		7.364	7.364	7.364	12.42	5	2.006	50.65	5	6.299	9.37	1	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	4.886	7.014	57.3	0.81284	0.0654	0.1843	0.181	3.4846	0.037124	0.231	1.064

C13: Comparison of Soil Analysis Surrender Data to Baseline Site Data

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide
	Min	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
1	n	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	t																		
	s																		
	95%ile																		
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
2	n	2	2	2	2	2	2	2	2	5	5	5	5	5	5	5	5	5	5
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025										
3	n	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	t																		
	s																		
	95%ile																		
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
4	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																		
	s																		
	95%ile																		
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
5	n	4	4	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
6	n	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	4.24919E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18	4.249E-18	4.249E-18	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide
7	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025										
	n	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	t																		
	s																		
	95%ile																		
8	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025										
	n	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
	t																		
	s																		
	95%ile																		
9	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	n	3	3	3	3	3	3	3	3	5	5	5	5	5	5	5	5	5	5
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	4.24919E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18	4.249E-18	4.249E-18	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
10	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0	0	0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025										
	n	4	4	4	4	4	4	4	4	0	0	0	0	0	0	0	0	0	0
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353										
	s	0	0	0	0	0	0	0	0										
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025										
11	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	n	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	4.24919E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18	4.249E-18	4.249E-18	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
12	Min	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	n	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2
	t									6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s									0	0	0	0	0	0	0	0	0	0
	95%ile									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Dichlorodifluoromethane	Chloromethane	Vinyl Chloride	Bromomethane	Chloroethane	Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Carbon Disulfide
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
13	n	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	s	0	0	0	0	0	0	0	0	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	7.601E-18	3.801E-18
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
14	n	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2
	t									6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s									0	0	0	0	0	0	0	0	0	0
	95%ile									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
15	n	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2
	t									6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s									0	0	0	0	0	0	0	0	0	0
	95%ile									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
16	n	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
17	n	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
	s	4.24919E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0	0	0	0	0	0	0	0	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Average									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
18	n	0	0	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2
	t									6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s									0	0	0	0	0	0	0	0	0	0
	95%ile									0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Min	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	Max	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
Baseline	Average	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025
	n	33	33	33	33	33	33	33	33	39	39	39	39	39	39	39	39	39	39
	t	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	s	1.05697E-17	1.057E-17	1.057E-17	1.057E-17	2.114E-17	1.057E-17	1.057E-17	1.057E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	2.812E-17	1.406E-17
	95%ile	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene
1	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
2	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
4	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
5	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
6	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene
7	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
8	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
9	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.036	0.025	0.025	0.025	0.025	0.025	0.39	0.025	0.45	0.025	0.3	0.034	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.0272	0.025	0.025	0.025	0.025	0.025	0.098	0.025	0.11	0.025	0.08	0.0276	0.025	0.025	0.025	0.025	0.025
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	0	0	0	0.00491935	0	0	0	0	0	0.163233	0	0.1900658	0	0.1229837	0.0039749	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.0318904	0.025	0.025	0.025	0.025	0.025	0.253636	0.025	0.29122	0.025	0.19726	0.0313899	0.025	0.025	0.025	0.025	0.025
10	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
11	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
12	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Bromochloromethane	Chloroform	2,2-Dichloropropane	1,1,1-Trichloroethane	1,2-Dichloroethane	1,1-Dichloropropene	Benzene	Carbon Tetrachloride	Dibromomethane	1,2-Dichloropropane	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene
13	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	t	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	s	3.801E-18	3.801E-18	3.801E-18	3.8006E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
14	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
15	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
16	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.25	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.31	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.08125	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.09625	0.025	0.025	0.025	0.025	0.025
	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0.1125	0	0	0	0	0	0	0	0	0	0	0.1425	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.21360625	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.2639013	0.025	0.025	0.025	0.025	0.025
17	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.56	0.025	0.025	0.025	0.025	0.025	0.025	0.057	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.20333333	0.025	0.025	0.025	0.025	0.025	0.025	0.0356667	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
	s	4.249E-18	4.249E-18	4.249E-18	0.30888239	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	0.0184752	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18
	95%ile	0.025	0.025	0.025	0.61171667	0.025	0.025	0.025	0.025	0.025	0.025	0.0600933	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
18	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Baseline	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.56	0.025	0.025	0.025	0.025	0.025	0.39	0.057	0.45	0.025	0.3	0.31	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.04476923	0.025	0.025	0.025	0.025	0.025	0.034359	0.0258205	0.0358974	0.025	0.0320513	0.032641	0.025	0.025	0.025	0.025	0.025
	n	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
	t	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	s	1.406E-17	1.406E-17	1.406E-17	0.09201386	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	0.0584468	0.0051241	0.0680545	1.406E-17	0.0440352	0.0456085	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17
	95&ile	0.025	0.025	0.025	0.04476923	0.025	0.025	0.025	0.025	0.025	0.034359	0.0258205	0.0358974	0.025	0.0320513	0.032641	0.025	0.025	0.025	0.025	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene
1	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
2	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
4	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
5	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
6	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene
7	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
8	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
9	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
10	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
11	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
12	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,3 -Dichloropropane	Dibromochloromethane	1,2-Dibromoethane	Tetrachloroethene	1,1,1,2-Tetrachloroethane	Chlorobenzene	Ethyl Benzene	m,p-Xylenes	Bromoform	Styrene	o-Xylene	1,1,2,2 Tetrachloroethane	1,2,3-Trichloropropane	Isopropylbenzene	Bromobenzene	n-propylbenzene	2-Chlorotoluene	4-Chlorotoluene	1,3,5 Trimethylbenzene	tert-butylbenzene
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
13	n	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	t	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015
	s	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	7.601E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
14	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	64	2.8	0.025	0.025	3.8	0.025	0.025	92	0.025	0.64	0.025	0.025	11	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	32.0125	1.425	0.025	0.025	1.9125	0.025	0.025	46.0125	0.025	0.3325	0.025	0.025	5.5125	0.025
15	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	45.237156	1.9445436	0	0	2.6693281	0	0	65.036146	0	0.4348707	0	0	7.7604969	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	233.98158	10.10675	0.025	0.025	13.830175	0.025	0.025	336.37758	0.025	2.274055	0.025	0.025	40.160575	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
16	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.13	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.06	0.025
17	n	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
	s	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	0.0606218	4.249E-18
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.14015	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
18	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
	Max	0.025	0.025	0.025	0.025	0.025	0.025	64	2.8	0.025	0.025	3.8	0.025	0.025	92	0.025	0.64	0.025	0.025	11	0.025
	Average	0.025	0.025	0.025	0.025	0.025	0.025	1.6653846	0.1205128	0.025	0.025	0.1217949	0.025	0.025	2.3833333	0.025	0.0407692	0.025	0.025	0.3091026	0.025
Baseline	n	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
	t	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	s	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	1.406E-17	10.244199	0.4403524	1.406E-17	1.406E-17	0.6044838	1.406E-17	1.406E-17	14.727787	1.406E-17	0.0984788	1.406E-17	1.406E-17	1.7570444	1.406E-17
	95&ile	0.025	0.025	0.025	0.025	0.025	0.025	1.6653846	0.1205128	0.025	0.025	0.1217949	0.025	0.025	2.3833333	0.025	0.0407692	0.025	0.025	0.3091026	0.025

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	TICs	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
1	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	n	1	1	1	1	1	1	1	1	1	1	1		0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
2	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	n	5	5	5	5	5	5	5	5	5	5	5		0	0	0	0	0	0	0	0
	t	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
3	Min	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
4	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	n	1	1	1	1	1	1	1	1	1	1	1		0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
5	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	n	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
6	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	n	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	TICs	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
7	Min	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	nts																				
	95%ile																				
8	Min	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	nts																				
	95%ile																				
9	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	nt	5	5	5	5	5	5	5	5	5	5	5		0	0	0	0	0	0	0	0
	ts	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132									
	95%ile	0	0	0	0	0	0	0	0	0	0	0									
		0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
10	Min	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	nts																				
	95%ile																				
11	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	nt	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	ts	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	95%ile	0	0	0	0	0	0	0	0	0	0	0									
		0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
12	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	nt	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	ts	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	95%ile	0	0	0	0	0	0	0	0	0	0	0									
		0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		1,2,4 Trimethylbenzene	sec-butylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	4-Isopropyltoluene	1,2 Dichlorobenzene	n-butylbenzene	1,2,4-Trichlorobenzene	1,2-Dibromo-3-Chloropropane	Hexachlorobutadiene	1,2,3-Trichlorobenzene	TICs	C3 benzene	Allybenzene	1,4 dimethyl-2-ethyl benzene	2-propyltoluene	3-ethyl-o-xylene	m-cymene	p-cymene	2,5 dimethyl styrene
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
13	n	6	6	6	6	6	6	6	6	6	6	6		0	0	0	0	0	0	0	0
	t	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015									
	s	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	3.801E-18	7.601E-18	3.801E-18									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
14	n	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
	Max	53	0.45	0.025	0.025	0.47	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
	Average	26.5125	0.2375	0.025	0.025	0.2475	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
15	n	2	2	2	2	2	2	2	2	2	2	2		1	1	1	1	1	1	1	1
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	s	37.458982	0.3005204	0	0	0.3146625	0	0	0	0	0	0									
	95%ile	193.75458	1.579225	0.025	0.025	1.652365	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
16	n	4	4	4	4	4	4	4	4	4	4	4		0	0	0	0	0	0	0	0
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.21	0.063	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.0866667	0.0376667	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
17	n	3	3	3	3	3	3	3	3	3	3	3		0	0	0	0	0	0	0	0
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29									
	s	0.1068098	0.0219393	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	4.249E-18	8.498E-18	4.249E-18									
	95%ile	0.2278833	0.0666733	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Max	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0	0	0	0	0	0	0	0
	Average	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
18	n	2	2	2	2	2	2	2	2	2	2	2		0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314									
	s	0	0	0	0	0	0	0	0	0	0	0									
	95%ile	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025									
	Min	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
	Max	53	0.45	0.025	0.025	0.47	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
	Average	1.3880769	0.0368718	0.025	0.025	0.0364103	0.025	0.025	0.025	0.025	0.05	0.025		0.072	0.885	0.5	0.162	0.519	0.477	0.103	0.245
Baseline	n	39	39	39	39	39	39	39	39	39	39	39		1	1	1	1	1	1	1	1
	t	0	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0
	s	8.4820611	0.0681663	1.406E-17	1.406E-17	0.071257	1.406E-17	1.406E-17	1.406E-17	1.406E-17	2.812E-17	1.406E-17									
	95&ile	1.3880769	0.0368718	0.025	0.025	0.0364103	0.025	0.025	0.025	0.025	0.05	0.025									

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
	Min	4.7	50	1	0.5	0.5	14	0	35	22	0.6	34	2.5	500	16	95	0	42	0	0	7.6	20	0	0	0	0	0	0	0	0	0	0	0
	Max	14	98	1.2	0.8	0.5	18	0	50	53	0.6	69	2.5	650	18	190	0	150	0	0	8.4	97	0	0	0	0	0	0	0	0	0	0	0
	Average	9.35	74	1.1	0.65	0.5	16		42.5	37.5	0.6	51.5	2.5	575	17	142.5		81.33	0		8	66.6666667											
1	n	2	2	2	2	2	2	0	2	2	2	2	2	2	2	2	0	3	3	0	3	3	0	0	0	0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		2.29	2.29		2.29	2.29											
	s	6.576	33.94	0.141	0.212	0	2.82843		10.61	21.92	0	24.749	0	106.07	1.414	67.18		59.68	0		0.4	41.0162569											
	95%ile	38.71	225.5	1.731	1.597	0.5	28.628		89.86	135.4	0.6	162	2.5	1048.6	23.31	442.4		160.2	0		8.529	120.895577											
	Min	3.7	23	0.5	0.5	0.5	10	0	8.6	24	0.6	12	2.5	200	10	35	0	0	0	0	6.1	5	0	0	0	0	0	0	0	0	0	0	0
	Max	13	120	1.3	0.5	0.5	25	0	39	37	0.6	52	2.5	470	24	110	0	0	0	0	9.7	390	0	0	0	0	0	0	0	0	0	0	0
	Average	6.8	64	0.875	0.5	0.5	18.75		27.15	29.33	0.6	30.5	2.5	335	17.25	73.75			0		7.357	66.7142857											
2	n	4	4	4	4	4	4	0	4	3	4	4	4	2	4	4	0	0	8	0	7	7	0	0	0	0	0	0	0	0	0	0	0
	t	2.353	2.353	2.353	2.353	2.353	2.353		2.353	2.29	2.353	2.353	2.353	6.314	2.353	2.353			1.895		1.943	1.943											
	s	4.231	45.57	0.435	0	0	7.08872		13.16	6.807	0	17.388	0	190.92	6.397	30.7			0		1.177	142.660102											
	95%ile	11.78	117.6	1.387	0.5	0.5	27.0899		42.63	38.33	0.6	50.957	2.5	1187.4	24.78	109.9			0		8.222	171.481721											
	Min	8.4	73	0.5	0.6	0.6	10	0	28	24	0.6	15	2.5	0	14	86	0	0	15	0	8	1200	0	0	0	0	0	0	0	0	0	0	0
	Max	11	110	1.2	0.6	0.7	15	0	58	40	0.6	53	2.5	0	14	120	0	0	15	0	11	1200	0	0	0	0	0	0	0	0	0	0	0
	Average	9.7	91.5	0.85	0.6	0.65	12.5		43	32	0.6	34	2.5		14	103			15		9.5	1200											
3	n	2	2	2	2	2	2	0	2	2	2	2	2	0	2	2	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314	6.314					6.314												
	s	1.838	26.16	0.495	0	0.071	3.53553		21.21	11.31	0	26.87	0		0	24.04					2.121												
	95%ile	17.91	208.3	3.06	0.6	0.966	28.285		137.7	82.51	0.6	153.97	2.5		14	210.3					18.97												
	Min	4	54	0.7	0.5	0.5	14	0	20	22	0.6	14	2.5	0	14	57	0	0	0.91	0	5.3	5	0	0	0	0	0	0	0	0	0	0	0
	Max	73	320	1	0.9	2.6	70	0	390	630	1	140	2.5	0	72	770	0	0	0.91	0	11.2	930	0	0	0	0	0	0	0	0	0	0	0
	Average	17.39	99.57	0.857	0.586	0.8	24.7143		79.43	119	0.657	40.857	2.5	0	25.29	163.9			0.91		7.467	183.166667											
4	n	7	7	7	7	7	7	0	7	7	7	7	7	5	7	7	0	0	1	0	6	6	0	0	0	0	0	0	0	0	0	0	0
	t	1.943	1.943	1.943	1.943	1.943	1.943		1.943	1.943	1.943	1.943	1.943	2.132	1.943	1.943					2.015	2.015											
	s	24.6	97.51	0.098	0.146	0.794	20.2131		137.2	225.7	0.151	44.028	0	0	21.09	267.3					2.186	367.713158											
	95%ile	35.45	171.2	0.929	0.693	1.383	39.5585		180.2	284.7	0.768	73.191	2.5	0	40.78	360.2					9.265	485.654977											
	Min	7	34	0.5	0.5	0.5	10	0	23	19	0.6	11	2.5	0	9.5	35	0	0	0.87	0	8.1	13	0	0	0	0	0	0	0	0	0	0	0
	Max	11	74	0.8	0.6	0.8	50	0	63	38	0.6	25	2.5	0	17	200	0	0	0.87	0	8.8	6100	0	0	0	0	0	0	0	0	0	0	0
	Average	9.143	54.86	0.686	0.514	0.543	24.5714		38.14	26.71	0.6	20.429	2.5		14.36	87.29			0.87		8.375												
5	n	7	7	7	7	7	7	0	7	7	7	7	7	0	7	7	0	0	1	0	8	6	0	0	0	0	0	0	0	0	0	0	0
	t	1.943	1.943	1.943	1.943	1.943	1.943		1.943	1.943	1.943	1.943	1.943		1.943	1.943					1.895												
	s	1.707	15.06	0.135	0.038	0.113	13.6242		16.36	6.396	0	5.0943	0		2.657	52.49					0.341												
	95%ile	10.4	65.92	0.785	0.542	0.626	34.5768		50.16	31.41	0.6	24.17	2.5		16.31	125.8					8.604												
	Min	6	68	0.9	0.5	0.5	28	0	23	10	0.6	24	2.5	0	15	67	0	0	0	0	7	11	0	0	0	0	0	0	0	0	0	0	0
	Max	7	79	1.1	0.5	0.5	29	0	23	21	0.6	33	2.5	0	17	72	0	0	0	0	7.8	930	0	0	0	0	0	0	0	0	0	0	0
	Average	6.5	73.5	1	0.5	0.5	28.5		23	15.5	0.6	28.5	2.5	0	16	69.5					7.44	377.75											
6	n	2	2	2	2	2	2	0	2	2	2	2	2	6	2	2	0	0	0	0	5	4	0	0	0	0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314	2.015	6.314	6.314					2.132	2.353											
	s	0.707	7.778	0.141	0	0	0.70711		0	7.778	0	6.364	0	0	1.414	3.536					0.305	446.146743											
	95%ile	9.657	108.2	1.631	0.5	0.5	31.657		23	50.23	0.6	56.913	2.5	0	22.31	85.29					7.731	902.641644											

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.8	500	0	0	0	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	32000	0	0	0	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Average																				7.85	11166.6667				0.002	0.002	0.002	0.002	0.002	0.002	0.002	
7	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	0	3	3	3	3	3	3	3	3
	t																				6.314	2.29				2.29	2.29	2.29	2.29	2.29	2.29	2.29	
	s																				0.071	18043.9279				0	0	0	0	0	0	0	
	95%ile																				8.166	35023.1232				0.002	0.002	0.002	0.002	0.002	0.002	0.002	
	Min	150	330	0.8	0.5	4.5	47	0	820	980	0.8	60	2.5	0	28	8500	0	0	0	0	7.2	3400	0	0	0	0	0	0	0	0	0	0	0
	Max	150	330	0.8	0.5	4.5	47	0	820	980	0.8	60	2.5	0	28	8500	0	0	0	0	7.5	16000	0	0	0	0	0	0	0	0	0	0	0
	Average	150	330	0.8	0.5	4.5	47		820	980	0.8	60	2.5		28	8500					7.35	9700											
8	n	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0
	t																				6.314	6.314											
	s																				0.212	8909.54544											
	95%ile																				8.297	49478.2											
	Min	16	66	0.5	0.5	0.5	16	0	34	26	0.6	20	2.5	0	15	64	0	40	0	24	5.9	62	0	0	0	0	0	0	0	0	0	0	0
	Max	710	570	1.2	2	2.9	110	0	2900	5800	8.1	150	20	0	70	1200	0	40	6.1	59	10.1	340000	0	0	0	0	0	0	0	0	0	0	0
	Average	151	239.4	0.911	1.067	1.333	49.1111		849.2	946.9	1.589	53.778	4.667		33.22	657.1		40	1.22	41.5	7.157	49761.3333											
9	n	9	9	9	9	9	9	0	9	9	9	9	9	0	9	9	0	2	5	2	14	9	0	0	0	0	0	0	0	0	0	0	0
	t	1.86	1.86	1.86	1.86	1.86	1.86		1.86	1.86	1.86	1.86	1.86		1.86	1.86		6.314	2.132	6.314	1.771	1.86											
	s	222.8	166.8	0.203	0.497	0.779	33.7433		915.5	1862	2.459	42.967	5.777		18.18	378.5		0	2.728	24.75	0.984	110582.903											
	95%ile	289.1	342.9	1.037	1.375	1.817	70.032		1417	2101	3.114	80.418	8.248		44.49	891.8		40	3.821	152	7.623	118322.733											
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	54	0	0	0	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.2	53000	0	0	0	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.008
	Average																				8.067	11137.2				0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
10	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	0	0	0	8	8	8	8	8	8	8	8
	t																				2.29	1.833				1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895
	s																				0.153	16418.3525				0	0	0	0	0	0	0	0.002
	95%ile																				8.269	20654.024				0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004
	Min	5.4	61	0.5	0.5	0.5	11	0	17	15	0.6	12	2.5	0	13	30	0	0	0.74	0	4.9	9	0	0	0	0	0	0	0	0	0	0	0
	Max	12	100	1.2	0.6	0.5	32	0	24	34	0.6	30	2.5	0	33	84	0	0	0.74	0	8.4	72	0	0	0	0	0	0	0	0	0	0	0
	Average	8.229	86.71	0.9	0.514	0.5	24.5714		19.57	23.29	0.6	19.571	2.5		22.71	59.71			0.74		6.5	32.7142857											
11	n	7	7	7	7	7	7	0	7	7	7	7	7	0	7	7	0	0	1	0	7	7	0	0	0	0	0	0	0	0	0	0	0
	t	1.943	1.943	1.943	1.943	1.943	1.943		1.943	1.943	1.943	1.943	1.943		1.943	1.943					1.943	1.943											
	s	2.47	15.37	0.258	0.038	0	8.67673		2.299	6.264	0	5.6821	0		8.015	19.02					1.318	20.0392472											
	95%ile	10.04	98	1.09	0.542	0.5	30.9435		21.26	27.89	0.6	23.744	2.5		28.6	73.68					7.468	47.4308077											
	Min	10	22	0.5	0.5	0.5	10	0	8.2	17	0.6	7.3	2.5	0	6.9	36	0	0	0	0	7.5	91	9800	5500	4800	0	0	0	0	0	0	0	0
	Max	22	68	1	0.7	1	38	0	45	46	0.6	23	2.5	0	60	94	0	0	0	0	10.3	63000	21000	12000	10000	0	0	0	0	0	0	0	0
	Average	13.25	50	0.725	0.55	0.625	26		26.05	27.25	0.6	16.825	2.5	0	26.73	62					8.233	15062.3333	15400	8750	7400								
12	n	4	4	4	4	4	4	0	4	4	4	4	4	6	4	4	0	0	0	0	9	9	2	2	2	0	0	0	0	0	0	0	0
	t	2.353	2.353	2.353	2.353	2.353	2.353		2.353	2.353	2.353	2.353	2.353	2.015	2.353	2.353					1.86	1.86	6.314	6.314	6.314								
	s	5.852	21.6	0.222	0.1	0.25	12.6491		15.04	13.23	0	6.9992	0	0	23.39	26.52					0.846	22956.3363	7919.6	4596.19	3676.96								
	95%ile	20.14	75.42	0.986	0.668	0.919	40.8817		43.75	42.81	0.6	25.06	2.5	0	54.24	93.2					8.758	29295.2618	50758.4	29270.5	23816.4								

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Arsenic	Barium	Beryllium	Boron (W/S)	Cadmium	Chromium	Chromium (Hexavalent)	Copper	Lead	Mercury	Nickel	Selenium	Sulphate (Total Acid Soluble) as SO4	Vanadium	Zinc	Total Cyanide	Exchangeable Ammonium as N	Organic Carbon	Water soluble chloride	pH	EPH (C10-C40)	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	PCB Congener 28	PCB Congener 52	PCB Congener 101	PCB Congener 118	PCB Congener 138	PCB Congener 153	PCB Congener 180	PCB's (Sum of ICES Congeners)
	Min	4.7	10	0.5	0.5	0.5	15	5	8.9	10	0.6	4.5	2.5	200	5.2	16	0	0	0	0	5.2	14											
	Max	370	370	2.3	1.8	1	10000	430	1100	260	1.7	47	5.2	200	35	1200	0	0	0	0	10.2	11000	0	0	0	0	0	0	0	0	0	0	0
	Average	55.26	96.17	0.837	0.695	0.553	1478.11	53.64	103.5	58.5	0.689	18.212	2.642	200	18.46	198.6					7.335	1593.5											
13	n	19	18	19	19	19	19	18	19	18	19	17	19	1	19	19	0	0	0	0	20	16	0	0	0	0	0	0	0	0	0	0	0
	t	1.734	1.74	1.734	1.734	1.734	1.734	1.74	1.734	1.74	1.734	1.746	1.734		1.734	1.734					1.729	1.753											
	s	106.1	93.14	0.488	0.372	0.135	2579.82	131.7	252.1	75.58	0.264	12.123	0.619		9.766	359.2					1.103	3359.24091											
	95%ile	97.49	134.4	1.031	0.843	0.606	2504.38	107.6	203.8	89.5	0.795	23.346	2.889		22.35	341.5					7.762	3065.68733											
	Min	43	87	0.8	0.5	0.5	24	0	100	64	0.6	18	2.5	440	25	170	0	0	1.6	0	5.8	10	0	0	0	0	0	0	0	0	0	0	0
	Max	43	92	1	0.6	0.6	30	0	110	68	0.7	25	2.5	440	25	190	0	0	1.6	0	7.6	150	0	0	0	0	0	0	0	0	0	0	0
	Average	43	89.5	0.9	0.55	0.55	27		105	66	0.65	21.5	2.5	440	25	180			1.6		6.8	66.5											
14	n	2	2	2	2	2	2	0	2	2	2	2	2	1	2	2	0	0	1	0	4	4	0	0	0	0	0	0	0	0	0	0	0
	t	6.314	6.314	6.314	6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314	6.314					2.353	2.353											
	s	0	3.536	0.141	0.071	0.071	4.24264		7.071	2.828	0.071	4.9497	0		0	14.14					0.762	59.8024526											
	95%ile	43	105.3	1.531	0.866	0.866	45.942		136.6	78.63	0.966	43.599	2.5		25	243.1					7.696	136.857585											
	Min	72	120	0.8	0.5	0.9	32	0	120	140	1.1	14	2.5	1500	27	180	0	0	2.6	0	6.9	0	0	0	0	0	0	0	0	0	0	0	0
	Max	72	120	0.8	0.5	0.9	32	0	120	140	1.1	14	2.5	1500	27	180	0	0	2.6	0	7.9	0	0	0	0	0	0	0	0	0	0	0	0
	Average	72	120	0.8	0.5	0.9	32		120	140	1.1	14	2.5	1500	27	180			2.6		7.4												
15	n	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
	t																				6.314												
	s																				0.707												
	95%ile																				10.56												
	Min	3	31	0.5	0.5	0.5	10	0	9.9	10	0.6	8.3	2.5	0	8.7	44	0	0	0.26	0	7.2	9	0	0	0	0	0	0	0	0	0	0	0
	Max	14	210	1.4	1.2	0.5	27	0	58	24	0.6	45	2.5	0	21	99	0	0	0.5	0	8.9	5200	0	0	0	0	0	0	0	0	0	0	0
	Average	8.067	147	0.8	0.733	0.5	17		41.63	17.67	0.6	22.767	2.5		16.9	69.67			0.38		7.914	1015.83333											
16	n	3	3	3	3	3	3	0	3	3	3	3	3	0	3	3	0	0	2	0	7	6	0	0	0	0	0	0	0	0	0	0	0
	t	2.29	2.29	2.29	2.29	2.29	2.29		2.29	2.29	2.29	2.29	2.29		2.29	2.29			6.314		1.943	2.015											
	s	5.551	100.6	0.52	0.404	0	8.88819		27.49	7.095	0	19.544	0		7.101	27.68			0.17		0.543	2059.41025											
	95%ile	15.41	280	1.487	1.268	0.5	28.7514		77.97	27.05	0.6	48.606	2.5		26.29	106.3			1.138		8.313	2709.94602											
	Min	17	17	0.5	0.5	0.5	17	0	36	29	0.6	14	2.5	0	10	84	0	0	2.9	0	6.4	8	0	0	0	0	0	0	0	0	0	0	0
	Max	52	170	1.1	3.9	2.6	1000	0	360	270	0.6	140	2.5	0	48	720	0	0	2.9	0	8.4	310	0	0	0	0	0	0	0	0	0	0	0
	Average	28.71	100.3	0.814	1.1	1.057	162.714		183.1	147	0.6	45	2.5		25.86	385.6			2.9		7.525	103.666667											
17	n	7	7	7	7	7	7	0	7	7	7	7	7	0	7	7	0	0	1	0	8	6	0	0	0	0	0	0	0	0	0	0	0
	t	1.943	1.943	1.943	1.943	1.943	1.943		1.943	1.943	1.943	1.943	1.943		1.943	1.943					1.895	2.015											
	s	12.85	53.3	0.195	1.245	0.744	369.248		147.1	96.11	0	42.697	0		11.98	256.3					0.676	123.532452											
	95%ile	38.15	139.4	0.958	2.014	1.603	433.884		291.1	217.6	0.6	76.356	2.5		34.65	573.8					7.978	205.28697											
	Min	7.9	65	0.6	0.5	0.5	16	5	22	21	0.6	13	2.5	220	14	53	0	0	0.93	0	5.5	22	0	0	0	0	0	0	0	0	0	0	0
	Max	18	140	1.2	0.5	0.5	37	5	120	44	0.6	31	2.5	2200	22	98	0	0	0.93	0	8.1	110	0	0	0	0	0	0	0	0	0	0	0
	Average	10.48	88.5	0.917	0.5	0.5	27.2857	5	50.17	29.33	0.6	23.833	2.5	782.5	18.17	73.17			0.93		7.171	57.25											
18	n	6	6	6	6	6	7	7	6	6	6	6	6	4	6	6	0	0	1	0	7	4	0	0	0	0	0	0	0	0	0	0	0
	t	2.015	2.015	2.015	2.015	2.015	1.943	1.943	2.015	2.015	2.015	2.015	2.015	2.353	2.015	2.015					1.943	2.353											
	s	3.832	28.63	0.204	0	0	7.34199	0	37.23	10.69	0	6.4005	0	948.63	2.994	16.56					0.945	41.9632776											
	95%ile	13.64	112.1	1.085	0.5	0.5	32.6776	5	80.79	38.13	0.6	29.099	2.5	1898.6	20.63	86.79					7.865	106.619796											
	Min	3	10	0.5	0.5	0.5	10	5	8.2	10	0.6	4.5	2.5	0	5.2	16	0	40	0	24	4.9	5	9800	5500	4800	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Max	710	570	2.3	3.9	4.5	10000	430	2900	5800	8.1	150	20	2200	72	8500	0	150	15	59	11.2	340000	21000	12000	10000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.008
Baseline	Average	40.72	107.5	0.849	0.684	0.742	367.262	40.02	167	168.3	0.742	29.879	2.767	253.21	21.71	306.3		64.8	1.247	41.5	7.521	7712.8835	15400	8750	7400	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
	n	83	83	83	83	83	84	25	83	83	83	83	83	28	83	83		5	26	2	116	102	2	2	2	11	11	11	11	11	11	11	11
	t							1.711						1.703				2.132	1.708	6.314			6.314	6.314	6.314	1.812	1.812	1.812	1.812	1.812	1.812	1.812	1.812
	s	97.1	95.98	0.307	0.468	0.635	1349.03	113	406	664.3	0.837	26.939	1.946	500.76	12.52	956.2		47.89	3.117	24.75	1.091	35075.7509	7919.6	4596.19	3676.96	5E-19	5E-19	5E-19	5E-19	5E-19	5E-19	5E-19	0.002
	95&ile	40.72	107.5	0.849	0.684	0.742	367.262	78.7	167	168.3	0.742	29.879	2.767	414.38	21.71	306.3		110.5	2.291	152	7.521	7712.8835	50758.4	29270.5	23816.4	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
	Min	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.32	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.32	0.32
	Max	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.32	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.32	0.32
	Average							0.1	0.1	0.1	0.1	0.32	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.32	0.32
1	n	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																								
	s																								
	95%ile																								
	Min	0	0	0	0	0	0	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	0
	Max	0	0	0	0	0	0	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	0
	Average							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		
2	n	0	0	0	0	0	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	0	0
	t							2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015	2.015		
	s							2E-17	2E-17	2E-17	2E-17	1.5E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17		
	95%ile							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		
	Min	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.32	0.1	0.1	0.1	0.1	0.11	0.1	0.1	0.1	0.1	0.1	0.1	0.55	0
	Max	0	0	0	0	0	0	0.14	0.1	0.1	0.16	0.81	0.1	0.1	0.11	0.1	0.12	0.1	0.1	0.1	0.1	0.1	0.1	1.22	0
	Average							0.12	0.1	0.1	0.13	0.565	0.1	0.1	0.105	0.1	0.115	0.1	0.1	0.1	0.1	0.1	0.1	0.885	
3	n	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0
	t							6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		
	s							0.028	0	0	0.0424	0.34648	0	0	0.0071	0	0.0071	0	0	0	0	0	0	0.474	
	95%ile							0.246	0.1	0.1	0.3194	2.11193	0.1	0.1	0.1366	0.1	0.1466	0.1	0.1	0.1	0.1	0.1	0.1	3	
	Min	0	0	0	0	0	0	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	2.09	2.74
	Max	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.39	0.1	0.52	0.38	0.26	0.34	0.26	0.16	0.19	0.12	0.1	0.12	2.09	2.74
	Average							0.1	0.1	0.1	0.1	0.158	0.1	0.184	0.156	0.132	0.148	0.132	0.112	0.118	0.104	0.1	0.104	2.09	2.74
4	n	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	1	1
	t							2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132		
	s							0	0	0	0	0.12969	0	0.1878	0.1252	0.072	0.1073	0.072	0.027	0.04	0.009	0	0.009		
	95%ile							0.1	0.1	0.1	0.1	0.28166	0.1	0.3631	0.2754	0.2	0.2503	0.2	0.138	0.156	0.113	0.1	0.113		
	Min	0	0	0	0	0	0	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	0.4	0.3
	Max	0	0	0	0	0	0	0.39	0.12	0.7	0.47	2.9	0.96	2.5	1.9	0.79	0.78	0.78	0.29	0.55	0.24	0.1	0.26	9.66	13.49
	Average							0.173	0.105	0.27	0.1925	0.8375	0.315	0.7125	0.5575	0.273	0.27	0.27	0.148	0.213	0.135	0.1	0.14	5.03	4.777
5	n	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2	3
	t							2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	6.314	2.29
	s							0.145	0.01	0.2891	0.185	1.37682	0.43	1.1919	0.8951	0.345	0.34	0.34	0.095	0.225	0.07	0	0.08	6.548	7.547
	95%ile							0.343	0.117	0.6102	0.4102	2.45733	0.821	2.1148	1.6106	0.678	0.67	0.67	0.259	0.477	0.217	0.1	0.234	34.26	14.75
	Min	0	0	0	0	0	0	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	0
	Max	0	0	0	0	0	0	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	0
	Average							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		
6	n	0	0	0	0	0	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	0
	t							2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353		
	s							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	95%ile							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		

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
7	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																								
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																								
	s																								
	95%ile																								
8	Min	0	0	0	0	0	0	0.1	0.1	0.14	0.11	1.5	0.32	2.5	1.8	1.3	1.4	1.4	0.83	0.96	0.84	0.16	0.84	10.45	14.07
	Max	0	0	0	0	0	0	0.1	0.1	0.14	0.11	1.5	0.32	2.5	1.8	1.3	1.4	1.4	0.83	0.96	0.84	0.16	0.84	10.45	14.07
	Average							0.1	0.1	0.14	0.11	1.5	0.32	2.5	1.8	1.3	1.4	1.4	0.83	0.96	0.84	0.16	0.84	10.45	14.07
	n	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																								
	s																								
	95%ile																								
9	Min	0.1	1	0	0	0	0	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	0.42	0.13
	Max	0.1	1	0	0	0	0	0.18	0.1	0.1	0.1	0.61	0.14	1	0.79	0.53	0.61	0.52	0.35	0.45	0.35	0.12	0.52	4.19	5.5
	Average	0.1	1					0.111	0.1	0.1	0.1	0.22444	0.104	0.2567	0.2333	0.171	0.18	0.18	0.149	0.171	0.147	0.102	0.163	2.148	2.268
	n	2	2	0	0	0	0	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	4	5
	t	6.314	6.314					1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	1.86	2.353	2.132
	s	0	0					0.027	1E-17	1E-17	1E-17	0.19705	0.013	0.3059	0.2384	0.151	0.1756	0.162	0.098	0.142	0.095	0.007	0.143	1.911	2.467
	95%ile	0.1	1					0.128	0.1	0.1	0.1	0.34661	0.113	0.4463	0.3811	0.265	0.2889	0.28	0.21	0.259	0.205	0.106	0.252	4.396	4.621
10	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																								
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																								
	s																								
	95%ile																								
11	Min	0	0	0	0	0	0	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	0
	Max	0	0	0	0	0	0	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	0
	Average							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		
	n	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0
	t							6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		
	s							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	95%ile							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		
12	Min	0	0	0	0	0	0	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	0.26	0.39
	Max	0	0	0	0	0	0	0.1	0.1	0.69	1.2	2.2	0.4	0.21	0.22	0.1	0.14	0.1	0.1	0.1	0.1	0.1	0.1	2.63	4.48
	Average							0.1	0.1	0.1738	0.2413	0.3925	0.138	0.1138	0.115	0.1	0.105	0.1	0.1	0.1	0.1	0.1	0.1	1.173	1.907
	n	0	0	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	3	3
	t							1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	2.29	2.29
	s							1E-17	1E-17	0.2086	0.3875	0.73266	0.106	0.0389	0.0424	1E-17	0.0141	1E-17	1E-17	1E-17	1E-17	1E-17	1E-17	1.275	2.24
	95%ile							0.1	0.1	0.3135	0.5009	0.88337	0.209	0.1398	0.1434	0.1	0.1145	0.1	0.1	0.1	0.1	0.1	0.1	2.859	4.869

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Phenol	Total Monohydric Phenols	Monoethylene Glycol	Propylene Glycol	Diethylene Glycol	Triethylene Glycol	Naphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
	Min	0.1	1	0	0	0	0	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	0.16	0.16
	Max	0.1	1	0	0	0	0	0.16	0.1	0.13	0.21	0.71	0.1	0.25	0.24	0.12	0.18	0.13	0.1	0.1	0.1	0.1	0.1	1.36	2.08
	Average	0.1	1					0.108	0.1	0.1038	0.1138	0.17625	0.1	0.1188	0.1175	0.103	0.11	0.104	0.1	0.1	0.1	0.1	0.1	0.76	1.12
13	n	3	3	0	0	0	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	8	2	2
	t	2.29	2.29					1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.943	1.895	6.314	6.314
	s	2E-17	0					0.021	1E-17	0.0106	0.0389	0.21567	1E-17	0.053	0.0495	0.007	0.0283	0.011	1E-17	1E-17	1E-17	1E-17	1E-17	0.849	1.358
	95%ile	0.1	1					0.122	0.1	0.1109	0.1398	0.32074	0.1	0.1543	0.1507	0.107	0.129	0.111	0.1	0.1	0.1	0.1	0.1	4.548	7.181
	Min	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.1	0.23	0.13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.43	0.57
	Max	0	0	0	0	0	0	0.1	0.1	0.1	0.1	0.2	0.1	0.23	0.13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.43	0.57
	Average							0.1	0.1	0.1	0.1	0.2	0.1	0.23	0.13	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.43	0.57
14	n	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																								
	s																								
	95%ile																								
	Min	0	0	0	0	0	0	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	0
	Max	0	0	0	0	0	0	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	0
	Average							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		
15	n	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																								
	s																								
	95%ile																								
	Min	0	0	10	10	10	10	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	0
	Max	0	0	10	10	10	10	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	0
	Average			10	10	10	10	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		
16	n	0	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0
	t			2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29		
	s			0	0	0	0	2E-17	2E-17	2E-17	2E-17	1.7E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17	2E-17		
	95%ile			10	10	10	10	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		
	Min	0	0	0	0	0	0	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	0.72	1.07
	Max	0	0	0	0	0	0	0.21	0.1	0.21	0.1	0.55	0.13	0.63	0.52	0.27	0.35	0.36	0.28	0.37	0.22	0.1	0.22	3.14	4.22
	Average							0.128	0.1	0.124	0.1	0.264	0.106	0.296	0.274	0.168	0.19	0.198	0.156	0.182	0.13	0.1	0.134	2.02	2.777
17	n	0	0	0	0	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	3
	t							2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.132	2.29	2.29
	s							0.048	0	0.0483	0	0.19907	0.013	0.2214	0.1954	0.081	0.1084	0.12	0.082	0.121	0.052	0	0.053	1.22	1.591
	95%ile							0.173	0.1	0.17	0.1	0.45381	0.119	0.5071	0.4603	0.245	0.2934	0.312	0.234	0.298	0.18	0.1	0.184	3.633	4.881
	Min	0	0	0	0	0	0	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	0
	Max	0	0	0	0	0	0	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	0
	Average							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		
18	n	0	0	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	0	0
	t							6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		
	s							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	95%ile							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		
	Min	0.1	1	10	10	10	10	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	0.16	0.13
	Max	0.1	1	10	10	10	10	0.39	0.12	0.7	1.2	2.9	0.96	2.5	1.9	1.3	1.4	1.4	0.83	0.96	0.84	0.16	0.84	10.45	14.07
Baseline	Average	0.1	1	10	10	10	10	0.11	0.1	0.1235	0.1271	0.27387	0.123	0.2298	0.1997	0.149	0.1571	0.155	0.127	0.14	0.124	0.101	0.127		
	n	5	5	3	3	3	3	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62		
	t	2.132	2.132	2.92	2.92	2.92	2.92																		
	s	0	0	0	0	0	0	0.041	0.003	0.1067	0.147	0.48248	0.118	0.4447	0.3276	0.184	0.1987	0.197	0.105	0.137	0.102	0.008	0.111		
	95&ile	0.1	1	10	10	10	10	0.11	0.1	0.1235	0.1271	0.27387	0.123	0.2298	0.1997	0.149	0.1571	0.155	0.127	0.14	0.124	0.101	0.127		

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																											
	95%ile																											
2	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																											
	95%ile																											
3	Min	0.39	0.52	0.11	0.41	30	50	44	120	0.01	0.01	0.17	0.62	35	48	72	160	2.2	280	280	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.39	0.52	0.11	0.41	30	50	44	120	0.01	0.01	0.17	0.62	35	48	72	160	2.2	280	280	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average	0.39	0.52	0.11	0.41	30	50	44	120	0.01	0.01	0.17	0.62	35	48	72	160	2.2	280	280	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	nts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	95%ile																											
4	Min	0.01	0.01	0.01	0.01	5	7.5	22	30	0.01	0.01	0.01	0.01	5	5	11	11	0.03	40	40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0
	Max	0.01	0.01	0.01	0.01	5	7.5	22	30	0.01	0.01	0.01	0.01	5	5	11	11	0.03	40	40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0
	Average	0.01	0.01	0.01	0.01	5	7.5	22	30	0.01	0.01	0.01	0.01	5	5	11	11	0.03	40	40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	#####
	nts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
	95%ile																											
5	Min	0.01	0.02	1.2	2.7	3400	6600	1700	12000	0.01	0.01	1.8	4	170	530	260	960	9.8	13000	13000	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.043
	Max	0.01	0.02	1.2	2.7	3400	6600	1700	12000	0.01	0.01	1.8	4	170	530	260	960	9.8	13000	13000	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.043
	Average	0.01	0.02	1.2	2.7	3400	6600	1700	12000	0.01	0.01	1.8	4	170	530	260	960	9.8	13000	13000	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.043
	nts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	95%ile																											
6	Min	0.01	0.01	0.01	0.01	5	8.3	16	24	0.01	0.01	0.01	0.01	5	5	7.9	7.9	0.01	32	32	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.01	0.01	0.01	0.01	5	8.3	16	24	0.01	0.01	0.01	0.01	5	5	7.9	7.9	0.01	32	32	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average	0.01	0.01	0.01	0.01	5	8.3	16	24	0.01	0.01	0.01	0.01	5	5	7.9	7.9	0.01	32	32	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	nts	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	95%ile																											

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
7	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																											
	t																											
	s																											
	95%ile																											
8	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																											
	t																											
	s																											
	95%ile																											
9	Min	0.01	0.02	0.02	0.13	25	68	83	180	0.01	0.01	0.03	0.19	9.7	30	46	86	0.39	260	260	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.01	0.02	0.02	0.13	25	68	83	180	0.01	0.01	0.03	0.19	9.7	30	46	86	0.39	260	260	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average	0.01	0.02	0.02	0.13	25	68	83	180	0.01	0.01	0.03	0.19	9.7	30	46	86	0.39	260	260	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																											
	s																											
	95%ile																											
10	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																											
	t																											
	s																											
	95%ile																											
11	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																											
	t																											
	s																											
	95%ile																											
12	Min	0.04	0.08	0.21	0.18	2000	1200	2300	5900	0.01	0.01	0.32	0.26	160	190	570	1600	1.5	7500	7500	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.029
	Max	0.4	0.11	0.5	6.4	8700	8200	2600	19000	0.01	0.01	0.76	9.7	1300	2000	1300	3900	17	23000	23000	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.029
	Average	0.22	0.095	0.355	3.29	5350	4700	2450	12450	0.01	0.01	0.54	4.98	730	1095	935	2750	9.25	15250	15250	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.029
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s	0.255	0.021	0.205	4.398	4738	4949.7	212.1	9263.1	0	0	0.311	6.6751	806.1	1279.9	516.19	1626	10.96	10960.2	10960.2	0	0	0	0	0	0	0	
	95%ile	1.357	0.19	1.271	22.93	26502	26799	3397	53807	0.01	0.01	1.929	34.782	4329	6809.2	3239.6	10011	58.18	64183.5	64183.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7	Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene
	Min	0.01	0.01	0.01	0.01	5	6.1	7.6	14	0.01	0.01	0.01	0.01	5	5	5	5	0.01	14	14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.01	0.03	0.23	1.7	75	180	130	340	0.01	0.01	0.35	2.6	42	58	30	130	4.9	470	470	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.035
	Average	0.01	0.015	0.065	0.435	36.25	71.525	62.15	168.5	0.01	0.01	0.095	0.665	14.475	22	22	55	1.258	223.5	223.5	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.016
13	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0.01	0.11	0.843	33	75.29	55.32	135.68	0	0	0.17	1.29	18.355	24.262	11.633	53.03	2.429	188.491	188.491	0	0	0	0	0	0	0	0.013
	95%ile	0.01	0.027	0.194	1.427	75.07	160.1	127.2	328.13	0.01	0.01	0.295	2.1827	36.07	50.545	35.687	117.4	4.115	445.26	445.26	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.031
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																											
14	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																											
	s																											
	95%ile																											
	Min	2.4	19	200	780	5	5	19	1000	0.01	0.01	340	1200	62	5	12	1600	2500	93	2600	0.01	0.01	0.01	0.42	13	18	97	390
	Max	2.4	19	200	780	5	5	19	1000	0.01	0.01	340	1200	62	5	12	1600	2500	93	2600	0.01	0.01	0.01	0.42	13	18	97	390
	Average	2.4	19	200	780	5	5	19	1000	0.01	0.01	340	1200	62	5	12	1600	2500	93	2600	0.01	0.01	0.01	0.42	13	18	97	390
15	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																											
	s																											
	95%ile																											
	Min	0.01	0.03	0.01	0.01	5.2	89	2100	2800	0.01	0.01	0.04	0.01	5	19	500	670	0.07	3100	3700	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.01	1.2	58	180	220	300	3100	3200	0.01	0.01	88	270	16	31	650	900	600	3800	3800	0.023	0.01	0.01	0.46	0.015	0.015	0.01	0.01
	Average	0.01	0.615	29.01	90.01	112.6	194.5	2600	3000	0.01	0.01	44.02	135.01	10.5	25	575	785	300	3450	3750	0.017	0.01	0.01	0.235	0.013	0.013	0.01	0.01
16	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0.827	41.01	127.3	151.9	149.2	707.1	282.84	0	0	62.2	190.91	7.7782	8.4853	106.07	162.6	424.2	494.975	70.7107	0.009	0	0	0.318	0.004	0.004	0	0
	95%ile	0.01	4.309	212.1	658.2	790.7	860.63	5757	4262.8	0.01	0.01	321.7	987.36	45.227	62.884	1048.6	1511	2194	5659.9	4065.7	0.058	0.01	0.01	1.656	0.028	0.028	0.01	0.01
	Min	0.01	0.04	0.16	0.24	17	82	2700	2800	0.01	0.01	0.24	0.36	7.7	34	740	780	1	3600	3600	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.01	0.27	1.9	4.9	1300	6200	8400	16000	0.01	0.01	2.9	7.3	220	930	3000	4200	17	20000	20000	0.01	0.01	0.01	0.01	0.01	0.028	0.01	0.14
	Average	0.01	0.155	1.03	2.57	658.5	3141	5550	9400	0.01	0.01	1.57	3.83	113.85	482	1870	2490	9	11800	11800	0.01	0.01	0.01	0.01	0.01	0.019	0.01	0.075
17	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0.163	1.23	3.295	907.2	4326.1	4031	9333.8	0	0	1.881	4.9073	150.12	633.57	1598.1	2418	11.31	11596.6	11596.6	0	0	0	0	0	0.013	0	0.092
	95%ile	0.01	0.881	6.523	17.28	4709	22456	23545	51072	0.01	0.01	9.968	25.74	784.08	3310.7	9004.8	13287	59.51	63574.8	63574.8	0.01	0.01	0.01	0.01	0.01	0.076	0.01	0.485
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																											
18	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																											
	s																											
	95%ile																											
	Min	0.01	0.01	0.01	0.01	5	5	7.6	14	0.01	0.01	0.01	0.01	5	5	5	5	0.01	14	14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	2.4	19	200	780	8700	8200	8400	19000	0.01	0.01	340	1200	1300	2000	3000	4200	2500	23000	23000	0.023	0.01	0.01	0.46	13	18	97	390
	Average	0.209	1.336	16.4	61.05	991.1	1443.5	1458	3983	0.01	0.01	27.17	93.445	128.33	244.69	453.56	943.4	197.1	4724.94	4919.13	0.011	0.01	0.01	0.064	0.822	1.136	6.072	27.88
Baseline	n	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	t	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753	1.753
	s	0.599	4.721	51.03	196.9	2270	2798.7	2203	5420.7	4015	0	86.3	302.67	320.61	499.48	398.01	1158	1176	6375.23	7372.88	0.003	0	0	0.147	3.247	4.497	24.25	104.2
	95&ile	0.472	3.404	38.76	147.3	1986	2670	2424	6358.6	1759	0.01	64.99	226.09	268.84	463.59	627.98	1451	712.5	7518.88	8150.29	0.012	0.01	0.01	0.128	2.245	3.107	16.7	73.56

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	SVOC Suite	Napthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
1	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
2	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
3	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
4	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
5	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
6	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
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	95%ile																																					

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
7	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
8	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
9	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
10	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
11	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
12	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	SVOC Suite	Naphthalene	2-Chloronaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benz(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Dibenzo(a,h)anthracene	Indeno(1,2,3-cd)pyrene	Benzo(g,h,i)perylene	Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
13	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		4.3	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		4.3	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		4.3	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
14	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Average		13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
15	n		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																																					
	s																																					
	95%ile																																					
	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
16	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
17	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
	Min		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																																					
18	n		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																																					
	s																																					
	95%ile																																					
	Min		0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	Max		13	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
Baseline	Average		2.579	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15
	n		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	t		1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943
	s		4.849	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3E-17	3E-17	0	0	3E-17	3E-17	0	0	3E-17	0	0	0	3E-17	3E-17	0	0
	95&ile		6.139	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.2	0.2	0.3	0.3	0.2	0.2	0.15	0.15	0.2	0.3	0.25	0.25	0.2	0.2	0.15	0.15

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
1	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
2	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																															
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																															
	s																															
	95%ile																															
4	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
5	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																															
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																															
	s																															
	95%ile																															
6	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Bis(2-chloroethy)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
7	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															
8	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															
10	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															
11	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															
12	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																															
	95%ile																															

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone	Sample Reference	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether	4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	Dibenzofuran	Carbazole	Bis (2-ethylhexyl) phthalate	4-nitroaniline	4-Chloroaniline	3-nitroaniline	2-nitroaniline	2-Methylnapthalene	Hexachlorocyclopentadiene	Di-n-octyl phthalate	Aniline	Biphenyl
13	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
14	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.71	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.71	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.71	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
15	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	6.7	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	6.7	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	6.7	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																															
	s																															
	95%ile																															
16	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																															
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																															
	s																															
	95%ile																															
17	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																															
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																															
	s																															
	95%ile																															
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																															
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																															
	s																															
	95%ile																															
Baseline	Min	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	0.2	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Max	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	6.7	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	Average	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	1.20143	0.2	0.25	0.15	0.3	0.15	0.15	0.15
	n	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	t	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943	1.943
	s	0	3E-17	0	3E-17	3E-17	0	3E-17	0	3E-17	3E-17	3E-17	3E-17	3E-17	0	3E-17	3E-17	0	0	0	0	1E-17	0	0	2.43208	3E-17	0	0	0	0	0	0
	95&ile	0.15	0.2	0.15	0.2	0.2	0.15	0.2	0.15	0.2	0.2	0.2	0.2	0.2	0.15	0.2	0.2	0.15	0.15	0.15	0.15	0.1	0.3	0.25	2.98751	0.2	0.25	0.15	0.3	0.15	0.15	0.15

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

C14: Comparison of Groundwater Analysis Surrender Data to Baseline Site Data

Zone		Arsenic (Dissolved)	Barium (Dissolved)	Beryllium (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Chromium (Hexavalent)	Copper (Dissolved)	Lead (Dissolved)	Mercury (Dissolved)	Nickel (Dissolved)	Selenium (Dissolved)	Vanadium (Dissolved)	Zinc (Dissolved)	Ammoniacal Nitrogen as N	Ammoniacal Nitrogen as NH4	pH	Sulphate as SO4
1	Min	0.005	0	0	0.12	0.001	0.005	0	0.005	0.005	0.00005	0.02	0.007	0	0.005	1.1	1.4	7.8	0
	Max	0.005	0	0	0.12	0.001	0.005	0	0.005	0.005	0.00005	0.02	0.007	0	0.005	1.1	1.4	7.8	0
	Average	0.005			0.12	0.001	0.005		0.005	0.005	0.00005	0.02	0.007		0.005	1.1	1.4	7.8	
	n	1	0	0	1	1	1	0	1	1	1	1	1	0	1	1	1	1	0
	t																		
	s																		
	95%ile																		
2	Min	0.005	0	0	0.033	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0.09	0.11	6.5	0
	Max	0.005	0	0	0.042	0.001	0.005	0	0.005	0.005	0.00005	0.007	0.005	0	0.012	0.17	0.22	7.1	0
	Average	0.005			0.038	0.001	0.005		0.005	0.005	0.00005	0.006	0.005		0.00733333	0.14333333	0.18333333	6.73333333	
	n	3	0	0	3	3	3	0	3	3	3	3	3	0	3	3	3	3	0
	t	2.29			2.29	2.29	2.29		2.29	2.29	2.29	2.29	2.29		2.29	2.29	2.29	2.29	
	s	0			0.00458258	0	0		0	0	0	0.001	0		0.00404145	0.04618802	0.06350853	0.32145503	
	95%ile	0.005			0.04405877	0.001	0.005		0.005	0.005	0.00005	0.00732213	0.005		0.01267667	0.2044	0.2673	7.15833935	
3	Min	0.005	0.046	0.001	0.11	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0.005	0.011	2.1	2.7	6.9	0
	Max	0.005	0.046	0.001	0.14	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0.005	0.014	2.1	2.7	7.8	0
	Average	0.005	0.046	0.001	0.125	0.001	0.005		0.005	0.005	0.00005	0.005	0.005	0.005	0.0125	2.1	2.7	7.35	
	n	2	1	1	2	2	2	0	2	2	2	2	2	1	2	1	1	2	0
	t	6.314			6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314			6.314	
	s	0			0.0212132	0	0		0	0	0	0	0		0.00212132			0.6363961	
	95%ile	0.005			0.21971	0.001	0.005		0.005	0.005	0.00005	0.005	0.005		0.021971			10.1913	
5	Min	0.005	0	0	0.024	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	6.7	0
	Max	0.005	0	0	0.079	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.011	0	0	7.4	0
	Average	0.005			0.0515	0.001	0.005		0.005	0.005	0.00005	0.005	0.005		0.008			7.06666667	
	n	2	0	0	2	2	2	0	2	2	2	2	2	0	2	0	0	3	0
	t	6.314			6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314			2.29	
	s	0			0.03889087	0	0		0	0	0	0	0		0.00424264			0.35118846	
	95%ile	0.005			0.225135	0.001	0.005		0.005	0.005	0.00005	0.005	0.005		0.026942			7.53098421	
6	Min	0.005	0	0	0.056	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	7.3	0
	Max	0.005	0	0	0.16	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	7.4	0
	Average	0.005			0.108	0.001	0.005		0.005	0.005	0.00005	0.005	0.005		0.005			7.35	
	n	2	0	0	2	2	2	0	2	2	2	2	2	0	2	0	0	2	0
	t	6.314			6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314			6.314	
	s																		
	95%ile																		
9	Min	0.005	0	0	0.1	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.01	0	0.008	0.12	0.16	5.6	0
	Max	0.14	0	0	0.12	0.001	0.005	0	0.005	0.006	0.00005	0.005	0.015	0	0.017	0.12	0.16	7.2	0
	Average	0.0725			0.11	0.001	0.005		0.005	0.0055	0.00005	0.005	0.0125		0.0125	0.12	0.16	6.45	
	n	2	0	0	2	2	2	0	2	2	2	2	2		2	1	1	4	0
	t	6.314			6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314			2.353	
	s	0.09545942			0.01414214	0	0		0	0.00070711	0	0	0.00353553		0.00636396			0.81853528	
	95%ile	0.498695			0.17314	0.001	0.005		0.005	0.008657	0.00005	0.005	0.028285		0.040913			7.41300675	

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Arsenic (Dissolved)	Barium (Dissolved)	Beryllium (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Chromium (Hexavalent)	Copper (Dissolved)	Lead (Dissolved)	Mercury (Dissolved)	Nickel (Dissolved)	Selenium (Dissolved)	Vanadium (Dissolved)	Zinc (Dissolved)	Ammoniacal Nitrogen as N	Ammoniacal Nitrogen as NH4	pH	Sulphate as SO4
	Min	0.005	0	0	0.035	0.001	0.005	0	0.005	0.005	0.00005	0.006	0.005	0	0.02	0	0	6.4	0
	Max	0.005	0	0	0.059	0.001	0.005	0	0.005	0.005	0.00005	0.008	0.005	0	0.021	0	0	6.8	0
	Average	0.005			0.047	0.001	0.005		0.005	0.005	0.00005	0.007	0.005		0.0205			6.63333333	
11	n	2	0	0	2	2	2	0	2	2	2	2	2	0	2	1	1	4	0
	t	6.314			6.314	6.314	6.314		6.314	6.314	6.314	6.314	6.314		6.314			2.353	
	s	0			0.01697056	0	0		0	0	0	0.00141421	0		0.00070711			0.2081666	
	95%ile	0.005			0.122768	0.001	0.005		0.005	0.005	0.00005	0.013314	0.005		0.023657			6.87824134	
	Min	0.076	0.073	0.001	0.16	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0.005	0.005	0	0	6.5	0
	Max	0.076	0.073	0.001	0.16	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0.005	0.005	0	0	7.2	0
	Average	0.076	0.073	0.001	0.16	0.001	0.005		0.005	0.005	0.00005	0.005	0.005	0.005	0.005			6.85	
12	n	1	1	1	1	1	1	0	1	1	1	1	1	1	1	0	0	2	0
	t																	6.314	
	s																	0.49497475	
	95%ile																	9.0599	
	Min	0.005	0	0	0.018	0.001	0.005	0.01	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	6.6	170
	Max	0.01	0	0	0.037	0.001	0.007	0.01	0.005	0.005	0.00005	0.009	0.005	0	0.007	0	0	7.6	170
	Average	0.00666667			0.03033333	0.001	0.00566667	0.01	0.005	0.005	0.00005	0.00766667	0.005		0.00566667			6.96666667	170
13	n	3	0	0	3	3	3	3	3	3	3	3	3	0	3	0	0	3	1
	t	2.29			2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29		2.29			2.29	
	s	0.00288675			0.01069268	0	0.0011547	0	0	0	0	0.0023094	0		0.0011547			0.55075705	
	95%ile	0.01048333			0.04447046	0.001	0.00719333	0.01	0.005	0.005	0.00005	0.01072	0.005		0.00719333			7.69484026	
	Min	0.005	0	0	0.029	0.001	0.006	0	0.005	0.005	0.00005	0.013	0.038	0	0.007	0	0	6.6	0
	Max	0.005	0	0	0.029	0.001	0.006	0	0.005	0.005	0.00005	0.013	0.038	0	0.007	0	0	6.6	0
	Average	0.005			0.029	0.001	0.006		0.005	0.005	0.00005	0.013	0.038		0.007			6.6	
14	n	1	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0	1	0
	t																		
	s																		
	95%ile																		
	Min	0.005	0	0	0.04	0.001	0.011	0	0.005	0.005	0.00005	0.007	0.021	0	0.008	0	0	6.7	0
	Max	0.005	0	0	0.04	0.001	0.011	0	0.005	0.005	0.00005	0.007	0.021	0	0.008	0	0	6.7	0
	Average	0.005			0.04	0.001	0.011		0.005	0.005	0.00005	0.007	0.021		0.008			6.7	
15	n	1	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0	1	0
	t																		
	s																		
	95%ile																		
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.3	0
	Average																	7.3	
16	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																		
	s																		
	95%ile																		

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Arsenic (Dissolved)	Barium (Dissolved)	Beryllium (Dissolved)	Boron (Dissolved)	Cadmium (Dissolved)	Chromium (Dissolved)	Chromium (Hexavalent)	Copper (Dissolved)	Lead (Dissolved)	Mercury (Dissolved)	Nickel (Dissolved)	Selenium (Dissolved)	Vanadium (Dissolved)	Zinc (Dissolved)	Ammoniacal Nitrogen as N	Ammoniacal Nitrogen as NH4	pH	Sulphate as SO4
17	Min	0.009	0	0	0.046	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	7.1	0
	Max	0.009	0	0	0.046	0.001	0.005	0	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	7.1	0
	Average	0.009			0.046	0.001	0.005		0.005	0.005	0.00005	0.005	0.005		0.005			7.1	
	n	1	0	0	1	1	1	0	1	1	1	1	1	0	1	0	0	1	0
	t																		
	s																		
	95%ile																		
18	Min	0.005	0	0	0.051	0.001	0.005	0.01	0.005	0.005	0.00005	0.005	0.005	0	0.005	0	0	6.3	0
	Max	0.005	0	0	0.051	0.001	0.005	0.01	0.005	0.005	0.00005	0.008	0.005	0	0.009	0	0	6.3	10
	Average	0.005			0.0465	0.001	0.005	0.01	0.005	0.005	0.00005	0.0065	0.005		0.007			6.25	10
	n	2	0	0	2	2	2	2	2	2	2	2	2	0	2	0	0	2	1
	t	6.314			6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		6.314			6.314	
	s	0			0.00636396	0	0	0	0	0	0	0.00212132	0		0.00282843			0.07071068	
	95%ile	0.005			0.074913	0.001	0.005	0.01	0.005	0.005	0.00005	0.015971	0.005		0.019628			6.5657	
Baseline	Min	0.005	0.046	0.001	0.018	0.001	0.005	0.01	0.005	0.005	0.00005	0.005	0.005	0.005	0.005	0.09	0.11	5.6	10
	Max	0.14	0.073	0.001	0.16	0.001	0.011	0.01	0.005	0.006	0.00005	0.02	0.038	0.005	0.021	2.1	2.7	7.8	170
	Average	0.01434783	0.0595	0.001	0.06852174	0.001	0.0053913	0.01	0.005	0.00504348	0.00005	0.00686957	0.00786957	0.005	0.00869565	0.625	0.80166667	6.86551724	90
	n	23	2	2	23	23	23	5	23	23	23	23	23	2	23	6	6	29	2
	t	1.717	6.314	6.314	1.717	1.717	1.717	2.132	1.717	1.717	1.717	1.717	1.717	6.314	1.717	2.015	2.02	1.701	6.314
	s	0.03111359	0.01909188	0	0.04505236	6.65142E-19	0.0013052	0	1.77371E-18	0.00020851	0	0.00349421	0.00764142	0	0.00502209	0.8193351	1.05152112	0.52730844	113.137085
	95&ile	0.02548709	0.144739	0.001	0.08465135	0.001	0.00585859	0.01	0.005	0.00511813	0.00005	0.00812056	0.01060534	0.005	0.01049366	1.29900169	1.6688157	7.03207698	595.12

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	VPH Compounds (C5-C10)	VPH Compounds (C10-C12)	VPH Compounds (C5-C12)	* * EPH SUITE * *	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	EPH (C10-C40)	Glycols
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0
	Average																	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	
2	Min	0	0	0	0	0	0	0	0	0	0	0	0	2.2	0.66	0.25	0.03	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	2.2	0.66	0.25	3.1	0
	Average													2.2	0.66	0.25	1.06666667	
	n	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0
	t																2.29	
	s																1.76103189	
	95%ile																3.39498349	
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.07	0
	Average																0.07	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	
5	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.05	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
	Average																2.525	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	t																6.314	
	s																3.50017857	
	95%ile																18.15215	
6	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0
	Average																0.01	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	0
	Average																0.0425	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
	t																2.353	
	s																0.03304038	
	95%ile																0.08137201	

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	VPH Compounds (C5-C10)	VPH Compounds (C10-C12)	VPH Compounds (C5-C12)	* * EPH SUITE * *	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	EPH (C10-C40)	Glycols
11	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.09	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	0
	Average																0.0425	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
	t																2.353	
	s																0.14849242	
	95%ile																0.21720134	
12	Min	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8	0	110	25	6.3	7.9	0
	Max	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8	0	110	25	6.3	140	0
	Average	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8		110	25	6.3	73.95	
	n	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	2	0
	t																6.314	
	s																93.4088058	
	95%ile																490.9897	
13	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.66	0
	Average																0.415	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	t																6.314	
	s																0.34648232	
	95%ile																1.96193	
14	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.02	0
	Average																0.02	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	
15	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0
	Average																0.04	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	
16	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.04	0
	Average																0.04	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	t																	
	s																	
	95%ile																	

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	VPH Compounds (C5-C10)	VPH Compounds (C10-C12)	VPH Compounds (C5-C12)	* * EPH SUITE * *	EPH (C10-C20)	EPH (C20-C30)	EPH (C30-C40)	EPH (C10-C40)	Glycols
17	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																	
	s																	
	95%ile																	
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.08	0
	Average																0.06	
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
	t																6.314	
	s																0.02828427	
	95%ile																0.18628	
Baseline	Min	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8	0	2.2	0.66	0.25	0.01	0
	Max	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8	0	110	25	6.3	140	0
	Average	0.005	0.005	0.005	0.005	0.005	0.008	0.005	0.029	0.75	9	9.8	0	56.1	12.83	3.275	6.86304348	0
	n	1	1	1	1	1	1	1	1	1	1	1	0	2	2	2	23	0
	t												0	6.314	6.314	6.314	1.717	0
	s												0	76.226111	17.2109791	4.27799603	29.0878659	0
	95&ile												0	396.4246	89.67138	22.37485	17.2770594	0

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Naphthalene	2-Chloronaphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Average	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
1	n	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																			
	s																			
	95%ile																			
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Max	0.0022	0	0.0012	0.0007	0.0033	0.0071	0.0058	0.0003	0.0003	0.0002	0.0003	0.0002	0.0001	0.0002	0.0001	0.0001	0.0001	0	0.0217
	Average	0.0008		0.00046667	0.0003	0.00116667	0.00243333	0.002	0.00016667	0.00016667	0.00013333	0.00016667	0.00013333	0.0001	0.00013333	0.0001	0.0001	0.0001		
2	n	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	2
	t	2.29		2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29		6.314
	s	0.00121244		0.00063509	0.00034641	0.00184752	0.00404145	0.0032909	0.00011547	0.00011547	5.7735E-05	0.00011547	5.7735E-05	0	5.7735E-05	0	0	0		0.01527351
	95%ile	0.002403		0.00130633	0.000758	0.00360933	0.00777667	0.006351	0.00031933	0.00031933	0.00020967	0.00031933	0.00020967	0.0001	0.00020967	0.0001	0.0001	0.0001		0.0681912
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
	Average	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
3	n	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
	t	6.314		6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		
	s	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	95%ile	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Max	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0
	Average	0.0004		0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004		
5	n	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0
	t	2.29		2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29		
	s	0.00051962		0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962		
	95%ile	0.001087		0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087		
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0002	0.0002
	Average	0.0001		0.0001	0.0001	0.0001	0.00015	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00015	0.00015
6	n	2	0	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314		6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s																			
	95%ile																			
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0001
	Max	0.0002	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0.0002
	Average	0.000125		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.00015
9	n	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	2
	t	2.353		2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353		6.314
	s	0.00005		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		7.0711E-05
	95%ile	0.00018383		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		0.0004657

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Naphthalene	2-Chloronaphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Average	0.000125		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
11	n	4	0	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	2
	t	2.353		2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353		6.314
	s	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	95%ile	0.000125		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
	Min	0.0015	0.02	0.0013	0.0033	0.017	0.02	0.0098	0.0003	0.0007	0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0367	0.0591
	Max	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0.0367	0.0591
	Average	0.01075	0.02	0.01065	0.01165	0.0185	0.0225	0.0149	0.01015	0.01035	0.0101	0.01005	0.01255	0.01005	0.01255	0.02005	0.02005	0.02005	0.0367	0.0591
12	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314		
	s	0.01308148	0	0.0132229	0.01180868	0.00212132	0.00353553	0.00721249	0.01393	0.01364716	0.01400071	0.01407142	0.01760696	0.01407142	0.01760696	0.02821356	0.02821356	0.02821356		
	95%ile	0.0691545	0.02	0.0696859	0.0643719	0.027971	0.038285	0.0471014	0.0723429	0.0712801	0.0726086	0.0728743	0.0911593	0.0728743	0.0911593	0.1460143	0.1460143	0.1460143		
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Max	0.001	0	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0	0
	Average	0.0004		0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004		
13	n	3	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	0	0
	t	2.29		2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29		
	s	0.00051962		0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962	0.00051962		
	95%ile	0.001087		0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087	0.001087		
	Min	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0	0
	Max	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0	0
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04		
14	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																			
	s																			
	95%ile																			
	Min	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0	0
	Max	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0	0
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04		
15	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																			
	s																			
	95%ile																			
	Min	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Average	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
16	n	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																			
	s																			
	95%ile																			

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Naphthalene	2-Chloronaphthalene	Acenaphthalene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene	PAH (Sum of Dutch 10)	PAH (Sum of EPA 16)
17	**Min**	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Average	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	n	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																			
	s																			
	95%ile																			
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0.0001	0	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0	0
	Average	0.0001		0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001		
	n	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
	t																			
	s																			
	95%ile																			
Baseline	Min	0.0001	0.02	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Max	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.02	0.02	0.02	0.02	0.025	0.02	0.025	0.04	0.04	0.04	0.0367	0.0591
	Average	0.002425	0.02	0.00237857	0.00243214	0.00301429	0.00343929	0.00284643	0.00231071	0.002325	0.00230357	0.00230357	0.00283571	0.00229643	0.00283571	0.00443929	0.00443929	0.00443929	0	0
	n	28	4	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	0	0
	t	1.703	2.353	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	1.703	0	0
	s	0.00622026	0	0.00622696	0.00623004	0.00679786	0.00756808	0.00639742	0.00624466	0.00624035	0.0062471	0.00624716	0.00782234	0.00624965	0.00782234	0.01254684	0.01254684	0.01254684	0	0
	95&ile	0.00442691	0.02	0.00438264	0.0044372	0.00520209	0.00587497	0.00490535	0.00432048	0.00433337	0.00431412	0.00431414	0.00535323	0.0043078	0.00535323	0.00847732	0.00847732	0.00847732	0	0

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
2	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
5	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
6	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether
11	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
12	Min	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Max	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0.01414214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.08314	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
13	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
14	Min	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Max	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
15	Min	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Max	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
16	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Phenol	2-Chlorophenol	2-Methylphenol	4-Methylphenol	2-Nitrophenol	2,4-Dimethylphenol	2,4-Dichlorophenol	2,6-Dichlorophenol	4-Chloro-3-methyl phenol	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	4-Nitrophenol	2,3,4,6-Tetrachlorophenol	Pentachlorophenol	Dimethyl Phthalate	Diethyl Phthalate	Di-n-butyl phthalate	Butyl benzyl phthalate	Bis(2-chloroethyl)ether	Bis(2-chloroisopropyl)ether
17	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																					
	t																					
	s																					
	95%ile																					
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																					
	t																					
	s																					
	95%ile																					
Baseline	Min	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Max	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01
	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0.00816497	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95&ile	0.02960608	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.03	0.06	0.02	0.03	0.03	0.06	0.015	0.01

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	2-nitroaniline	4-nitroaniline	4-Chloroaniline
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
2	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
3	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
5	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
6	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n																				
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	2-nitroaniline	4-nitroaniline	4-Chloroaniline
11	Min																				
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
12	Min	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Max	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Average	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
13	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
14	Min	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Max	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Average	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
15	Min	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Max	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Average	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
16	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		4-Chlorophenyl phenyl ether	Bromo phenyl phenyl ether	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	Nitrobenzene	1,2,4-Trichlorobenzene	2,6-Dinitrotoluene	2,4-Dinitrotoluene	Azobenzene	Hexachlorobenzene	Hexachloroethane	n-Nitro-n-propyl-1-propanamine	Isophorone	Bis(2-chloroethoxy)methane	Hexachlorobutadiene	Anthraquinone	2-nitroaniline	4-nitroaniline	4-Chloroaniline
17	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																				
	95%ile																				
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	nts																				
	95%ile																				
Baseline	Min	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Max	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	Average	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05
	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95&ile	0.015	0.03	0.015	0.01	0.01	0.02	0.01	0.03	0.02	0.03	0.02	0.04	0.015	0.02	0.015	0.01	0.03	0.05	0.05	0.05

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		2-Methylnapthalene	Hexachlorocyclopentadiene	Carbazole	3-nitroaniline	Dibenzofuran	Bis (2-ethylhexyl) phthalate	Aniline	Biphenyl	SVOC TIC'S	*** CWG SUITE ***	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n t s																			
	95%ile																			
2	Min	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.1	1.2	1.2	0.33	2.79	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.1	1.2	1.2	0.33	2.79	0.01
	Average	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.1	1.2	1.2	0.33	2.79	0.01
	n t s											1	1	1	1	1	1	1	1	1
	95%ile																			
3	Min	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	n t s											1	1	1	1	1	1	1	1	1
	95%ile																			
5	Min	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
	Average	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
	n t s											1	1	1	1	1	1	1	1	1
	95%ile																			
6	Min	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	n t s											1	1	1	1	1	1	1	1	1
	95%ile																			
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	n t s																			
	95%ile																			

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		2-Methylnapthalene	Hexachlorocyclopentadiene	Carbazole	3-nitroaniline	Dibenzofuran	Bis (2-ethylhexyl) phthalate	Aniline	Biphenyl	SVOC TIC'S	* * CWG SUITE * *	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7
	Min											0.01	0.01	0.01	0.01	1.4	1.6	0.34	3.35	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	1.4	1.6	0.34	3.35	0.01
	Average											0.01	0.01	0.01	0.01	1.4	1.6	0.34	3.35	0.01
11	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																			
	s																			
	95%ile																			
	Min	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.01	0.29	1.4	28	30.02	0.01
	Max	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.01	0.29	1.4	28	30.02	0.01
	Average	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04			0.01	0.01	0.01	0.01	0.29	1.4	28	30.02	0.01
12	n	2	2	2	2	2	2	2	2	0	0	1	1	1	1	1	1	1	1	1
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314											
	s	0	0	0	0	0	0	0	0											
	95%ile	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04											
	Min	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.07	0.55	11	11.69	0.01
	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.07	0.55	11	11.69	0.01
	Average											0.01	0.01	0.01	0.01	0.07	0.55	11	11.69	0.01
13	n	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	t																			
	s																			
	95%ile																			
	Min	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0
	Max	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0
	Average	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04											
14	n	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	t																			
	s																			
	95%ile																			
	Min	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0
	Max	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0	0	0	0	0	0	0	0	0
	Average	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04											
15	n	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
	t																			
	s																			
	95%ile																			
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																			
16	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																			
	s																			
	95%ile																			

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		2-Methylnapthalene	Hexachlorocyclopentadiene	Carbazole	3-nitroaniline	Dibenzofuran	Bis (2-ethylhexyl) phthalate	Aniline	Biphenyl	SVOC TIC'S	* * CWG SUITE * *	Aliphatic C5-C6	Aliphatic >C6-C8	Aliphatic >C8-C10	Aliphatic >C10-C12	Aliphatic >C12-C16	Aliphatic >C16-C21	Aliphatic >C21-C35	Total Aliphatics (C5-C35)	Aromatic C6-C7
17	Max	0	0	0	0	0	0	0	0	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Average											0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	n	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
	t																			
	s																			
	95%ile																			
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																			
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																			
	s																			
	95%ile																			
Baseline	Min	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Max	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.1	1.4	1.6	28	30.02	0.01
	Average	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.02125	0.375	0.59875	4.96375	5.9875	0.01
	n	4	4	4	4	4	4	4	4	0	0	8	8	8	8	8	8	8	8	8
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	0	0	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0.03181981	0.58118106	0.69640788	10.0577929	10.4885145	0
	95&ile	0.05	0.05	0.05	0.05	0.05	0.05	0.04	0.04	0	0	0.01	0.01	0.01	0.04256875	0.76438182	1.06533191	11.7023071	13.0146335	0.01

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Vinyl Chloride	Chloroethane
1	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
2	Min	0.01	0.02	0.15	0.57	0.62	0.37	1.72	0.28	4.24	4.51	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.02	0.15	0.57	0.62	0.37	1.72	0.28	4.24	4.51	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.02	0.15	0.57	0.62	0.37	1.72	0.28	4.24	4.51	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
	t																			2.29	2.29
	s																			0	0
	95%ile																			0.01	0.001
3	Min	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	t																			6.314	6.314
	s																			0	0
	95%ile																			0.01	0.001
5	Min	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3
	t																			2.29	2.29
	s																			0	0
	95%ile																			0.01	0.001
6	Min	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	t																			6.314	6.314
	s																				
	95%ile																				
9	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Average																			0.01	0.001
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
	t																			2.353	2.353
	s																			0	0
	95%ile																			0.01	0.001

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Vinyl Chloride	Chloroethane
	Min	0.01	0.01	0.01	0.05	0.1	0.01	0.15	0.01	3.5	3.5	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.05	0.1	0.01	0.15	0.01	3.5	3.5	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.05	0.1	0.01	0.15	0.01	3.5	3.5	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
11	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
	t																			2.353	2.353
	s																			0	0
	95%ile																			0.01	0.001
	Min	0.01	0.01	0.01	0.04	0.2	5.5	5.77	0.01	35.79	35.79	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.04	0.2	5.5	5.77	0.01	35.79	35.79	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.006
	Average	0.01	0.01	0.01	0.04	0.2	5.5	5.77	0.01	35.79	35.79	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.0035
12	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	t																			6.314	6.314
	s																			0	0.00353553
	95%ile																			0.01	0.019285
	Min	0.01	0.01	0.01	0.02	0.11	3	3.11	0.01	14.8	14.8	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.01	0.01	0.02	0.11	3	3.11	0.01	14.8	14.8	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.02	0.11	3	3.11	0.01	14.8	14.8	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
13	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2
	t																			6.314	6.314
	s																			0	0
	95%ile																			0.01	0.001
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Average																			0.01	0.001
14	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	t																				
	s																				
	95%ile																				
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Average																			0.01	0.001
15	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	t																				
	s																				
	95%ile																				
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Average																			0.01	0.001
16	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Aromatic >C7-C8	Aromatic >C8-C10	Aromatic >C10-C12	Aromatic >C12-C16	Aromatic >C16-C21	Aromatic >C21-C35	Total Aromatics (C5-C35)	Volatile Hydrocarbons (C5-C12)	Extractable Hydrocarbons (C12-C35)	Total Hydrocarbons (C5-C35)	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Vinyl Chloride	Chloroethane
17	Max	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Average	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
18	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.01	0.001
	Average																			0.01	0.001
	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
	t																			6.314	6.314
	s																			0	0
	95%ile																			0.01	0.001
Baseline	Min	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.001
	Max	0.01	0.02	0.15	0.57	0.62	5.5	5.77	0.28	35.79	35.79	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.006
	Average	0.01	0.01125	0.0275	0.09	0.13375	1.115	1.34875	0.04375	7.2975	7.33125	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.00119231
	n	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	26	26
	t	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.895	1.708	1.708
	s	0	0.00353553	0.04949747	0.19456912	0.20832238	2.05083955	2.1177241	0.09545942	12.5593696	12.5503391	0	0	0	0	0	0	0	0	1.7691E-18	0.00098058
	95&ile	0.01	0.01361875	0.0606625	0.22035813	0.27332259	2.48902902	2.76759057	0.10770625	15.7120726	15.7397723	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.01	0.00152077

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Chloroform	1,1,1-Trichloroethane	1,2-Dichloroethane	Benzene	Carbon Tetrachloride	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	Dibromochloromethane
	Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Average																				
1	n	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	t																				
	s																				
	95%ile																				
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.005	0.024	0.001	0.001	0.001	0.001	0.001	0.016	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.00233333	0.011	0.001	0.001	0.001	0.001	0.001	0.006	0.001	0.001	0.001	0.001	0.001	0.001
2	n	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
	s	0	0	4.2492E-18	8.4984E-18	0	0	0.0023094	0.01178983	0	0	0	0	0	0.00866025	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.00538667	0.02658771	0.001	0.001	0.001	0.001	0.001	0.01745	0.001	0.001	0.001	0.001	0.001	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.00133333	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5	n	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29
	s	0	0	4.2492E-18	8.4984E-18	0	0	0.00057735	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.00209667	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
6	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s																				
	95%ile																				
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Chloroform	1,1,1-Trichloroethane	1,2-Dichloroethane	Benzene	Carbon Tetrachloride	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	Dibromochloromethane
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.005						
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11	n	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001
12	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00141421	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.008314	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
13	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
14	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
15	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
16	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Trichlorofluoromethane	1,1-Dichloroethene	112-Trichloro-122-Trifluoroethane	Dichloromethane	Trans-1,2 Dichloroethene	MTBE	1,1 -Dichloroethane	Cis-1,2 Dichloroethene	Chloroform	1,1,1-Trichloroethane	1,2-Dichloroethane	Benzene	Carbon Tetrachloride	Trichloroethene	Bromodichloromethane	Cis-1,3 Dichloropropene	Trans-1,3 Dichloropropene	1,1,2-Trichloroethane	Toluene	Dibromochloromethane
17	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	n	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	t																				
	s																				
	95%ile																				
18	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	n	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314
	s	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95%ile	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Baseline	Min	0.001	0.001	0.025	0.05	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Max	0.001	0.001	0.025	0.05	0.001	0.001	0.005	0.024	0.001	0.001	0.001	0.001	0.001	0.016	0.001	0.001	0.001	0.001	0.003	0.001
	Average	0.001	0.001	0.025	0.05	0.001	0.001	0.00119231	0.00215385	0.001	0.001	0.001	0.001	0.001	0.00157692	0.001	0.001	0.001	0.001	0.00107692	0.001
	n	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	t	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708
	s	6.634E-19	6.634E-19	7.0763E-18	1.4153E-17	6.634E-19	6.634E-19	0.00080096	0.00466212	6.634E-19	6.634E-19	6.634E-19	6.634E-19	6.634E-19	0.00294174	6.634E-19	6.634E-19	6.634E-19	6.634E-19	0.00039223	6.634E-19
	95&ile	0.001	0.001	0.025	0.05	0.001	0.001	0.0014606	0.0037155	0.001	0.001	0.001	0.001	0.001	0.00256231	0.001	0.001	0.001	0.001	0.00120831	0.001

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Ethyl Benzene	m,p-Xylenes	Bromoform	o-Xylene	1,1,2,2 Tetrachloroethane	1,3,5 Trimethylbenzene	1,2,4 Trimethylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	1,2 Dichlorobenzene	VOC TIC's
1	Min	0	0	0	0	0	0	0	0	0	0	0
	Max	0	0	0	0	0	0	0	0	0	0	0
	Average											
	n	0	0	0	0	0	0	0	0	0	0	0
	t											
	s											
	95%ile											
2	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	3	3	3	3	3	3	3	3	3	3	0
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
3	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	2	2	2	2	2	2	2	2	2	2	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
5	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	3	3	3	3	3	3	3	3	3	3	0
	t	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	2.29	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
6	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	2	2	2	2	2	2	2	2	2	2	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s											
	95%ile											
9	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	4	4	4	4	4	4	4	4	4	4	0
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Ethyl Benzene	m,p-Xylenes	Bromoform	o-Xylene	1,1,2,2 Tetrachloroethane	1,3,5 Trimethylbenzene	1,2,4 Trimethylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	1,2 Dichlorobenzene	VOC TIC's
	Min											
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
11	n	4	4	4	4	4	4	4	4	4	4	0
	t	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	2.353	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.004	0.015	0.001	0.008	0.001	0.001	0.024	0.001	0.001	0.001	0
	Average	0.0025	0.008	0.001	0.0045	0.001	0.001	0.0125	0.001	0.001	0.001	
12	n	2	2	2	2	2	2	2	2	2	2	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s	0.00212132	0.00989949	0	0.00494975	0	0	0.01626346	0	0	0	
	95%ile	0.011971	0.052198	0.001	0.026599	0.001	0.001	0.085111	0.001	0.001	0.001	
	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
13	n	2	2	2	2	2	2	2	2	2	2	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
14	n	1	1	1	1	1	1	1	1	1	1	0
	t											
	s											
	95%ile											
	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
15	n	1	1	1	1	1	1	1	1	1	1	0
	t											
	s											
	95%ile											
	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
16	n	1	1	1	1	1	1	1	1	1	1	0
	t											
	s											
	95%ile											

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

Zone		Ethyl Benzene	m,p-Xylenes	Bromoform	o-Xylene	1,1,2,2 Tetrachloroethane	1,3,5 Trimethylbenzene	1,2,4 Trimethylbenzene	1,3 Dichlorobenzene	1,4 Dichlorobenzene	1,2 Dichlorobenzene	VOC TIC's
17	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	1	1	1	1	1	1	1	1	1	1	0
	t											
	s											
	95%ile											
18	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Average	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
	n	2	2	2	2	2	2	2	2	2	2	0
	t	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	6.314	
	s	0	0	0	0	0	0	0	0	0	0	
	95%ile	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
Baseline	Min	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0
	Max	0.004	0.015	0.001	0.008	0.001	0.001	0.024	0.001	0.001	0.001	0
	Average	0.00111538	0.00153846	0.001	0.00126923	0.001	0.001	0.00188462	0.001	0.001	0.001	0
	n	26	26	26	26	26	26	26	26	26	26	0
	t	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	1.708	0
	s	0.00058835	0.00274563	6.634E-19	0.00137281	6.634E-19	6.634E-19	0.00451067	6.634E-19	6.634E-19	6.634E-19	0
	95&ile	0.00131246	0.00245815	0.001	0.00172908	0.001	0.001	0.00339554	0.001	0.001	0.001	0

Surrender Data maximum concentration exceeds Baseline Data upper 95% confidence limit of the measured mean

APPENDIX D: SITE CONDITION AT PERMIT SURRENDER

Laboratory Analysis Certificates

Laboratory Methods and Detection Limits

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

21 March 2007

TEST REPORT

Our Report Number: 07-28407

Your Order Reference: Instructions of 08/03/2007

15 soil samples submitted for analysis on 08/03/2007

Project Name: ALCOA

Project Code: 64C11647

Laboratory analysis started on 09/03/2007
All laboratory analysis completed by 21 March 2007

pp. Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Job Number: 07-28407
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
211505	BH1-01	0.50-1.00	05/03/07	Grey sand with gravel
211506	BH1-01	1.50-2.00	05/03/07	Brown sand with gravel
211507	BH1-01	2.50-3.00	05/03/07	*Grey gravel with sand
211508	BH2-01	0.6	06/03/07	Brown clay with gravel
211509	BH2-02	0.6	06/03/07	*Brown gravel
211510	BH2-02	1.0	06/03/07	Brown sandy clay with gravel
211511	BH2-02	2.0	06/03/07	Brown sand with sand
211512	BH2-02	5.0	06/03/07	Brown sand with rubble
211513	BH2-03	0.6	06/03/07	Brown clay with gravel
211514	BH2-03	2.5	06/03/07	Green sandy clay
211515	BH2-03	3.50-4.00	06/03/07	Brown sandy clay with gravel
211516	BH9-02	0.6	07/03/07	*Brown gravel
211517	BH9-02	3.50-3.80	07/03/07	Brown sandy clay with gravel
211518	BH9-03	0.80-1.20	07/03/07	Brown sand
211519	BH9-03	3.0	07/03/07	Brown clay

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH1-01	BH1-01	BH2-01	BH2-02	Method No	Units	LOD
Sample Depth (m)	0.50-1.00	1.50-2.00	2.50-3.00	0.60	0.60			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211505	211506	211507	211508	211509			
Analysis								
Moisture Content (Dry Weight)	7.3	5.4	4.9	17.5	2.0		%	0.1
Moisture Content (Wet Weight)	6.8	5.2	4.7	14.9	2.0		%	0.1
Arsenic	14	-	4.7	13	-	069S[IM]	mg/kg	3
Barium	50	-	98	31	-	069S[IM]	mg/kg	10
Beryllium	1.0	-	1.2	0.5	-	069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-	0.8	< 0.5	-	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	-	0.5	< 0.5	-	069S[IM]	mg/kg	0.5
Chromium	18	-	14	< 10	-	069S[IM]	mg/kg	10
Copper	35	-	50	28	-	069S[IM]	mg/kg	5
Lead	22	-	53	27	-	069S[IM]	mg/kg	10
Mercury	< 0.6	-	< 0.6	< 0.6	-	069S[IM]	mg/kg	0.6
Nickel	34	-	69	12	-	069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5	< 2.5	-	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	650	500	-	-	-	025a[IM]	mg/kg	200
Vanadium	18	-	16	10	-	069S[IM]	mg/kg	3
Zinc	95	-	190	35	-	069S[IM]	mg/kg	10
Exchangeable Ammonium as N	150	42	52	-	-	018[IM]	mg/kg	40
W/S Chloride	-	-	-	-	-	073S[IM]	mg/kg	10
pH	8.4	8.0	7.6	7.9	9.7	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	20	83	97	13	16	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-02	BH2-02	BH2-02	BH2-03	BH2-03	Method No	Units	LOD
Sample Depth (m)	1.00	2.00	5.00	0.60	2.50			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211510	211511	211512	211513	211514			
Analysis								
Moisture Content (Dry Weight)	22.4	13.5	5.5	20.8	14.0		%	0.1
Moisture Content (Wet Weight)	18.3	11.9	5.2	17.2	12.3		%	0.1
Arsenic	4.6	5.9	-	-	-	069S[IM]	mg/kg	3
Barium	82	120	-	-	-	069S[IM]	mg/kg	10
Beryllium	1.2	1.3	-	-	-	069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	< 0.5	-	-	-	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5	-	-	-	069S[IM]	mg/kg	0.5
Chromium	25	24	-	-	-	069S[IM]	mg/kg	10
Copper	33	39	-	-	-	069S[IM]	mg/kg	5
Lead	24	37	-	-	-	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	-	-	-	069S[IM]	mg/kg	0.6
Nickel	36	52	-	-	-	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	-	-	-	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	< 200	-	470	-	025a[IM]	mg/kg	200
Vanadium	21	24	-	-	-	069S[IM]	mg/kg	3
Zinc	77	110	-	-	-	069S[IM]	mg/kg	10
Exchangeable Ammonium as N	-	-	-	-	-	018[IM]	mg/kg	40
W/S Chloride	-	-	-	-	-	073S[IM]	mg/kg	10
pH	-	7.0	7.2	6.5	6.1	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	13	22	8	5	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-03	BH9-02	BH9-02	BH9-03	BH9-03	Method No	Units	LOD
Sample Depth (m)	3.50-4.00	0.60	3.50-3.80	0.80-1.20	3.00			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211515	211516	211517	211518	211519			
Analysis								
Moisture Content (Dry Weight)	16.1	4.0	15.2	4.3	23.8		%	0.1
Moisture Content (Wet Weight)	13.9	3.8	13.2	4.1	19.2		%	0.1
Arsenic	3.7	-	16	240	-	069S[IM]	mg/kg	3
Barium	23	-	89	190	-	069S[IM]	mg/kg	10
Beryllium	< 0.5	-	0.7	1.2	-	069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-	< 0.5	0.9	-	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	-	< 0.5	1.2	-	069S[IM]	mg/kg	0.5
Chromium	16	-	16	25	-	069S[IM]	mg/kg	10
Copper	8.6	-	34	680	-	069S[IM]	mg/kg	5
Lead	< 10	-	26	260	-	069S[IM]	mg/kg	10
Mercury	< 0.6	-	< 0.6	1.5	-	069S[IM]	mg/kg	0.6
Nickel	22	-	20	36	-	069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5	4.2	-	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	-	-	-	-	025a[IM]	mg/kg	200
Vanadium	14	-	20	32	-	069S[IM]	mg/kg	3
Zinc	73	-	64	770	-	069S[IM]	mg/kg	10
Exchangeable Ammonium as N	-	< 40	-	-	< 40	018[IM]	mg/kg	40
W/S Chloride	-	59	-	24	-	073S[IM]	mg/kg	10
pH	7.1	7.9	5.9	7.6	7.0	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	390	-	-	-	-	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-01	BH2-02	BH2-02	BH2-02	Method No	Units	LOD
Sample Depth (m)	1.50-2.00	0.60	0.60	2.00	5.00			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211506	211508	211509	211511	211512			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	0.32	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	0.32	ND	ND	ND	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	0.32	ND	ND	ND	ND	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-03	BH2-03	BH9-02	BH9-02	BH9-03	Method No	Units	LOD
Sample Depth (m)	0.60	2.50	0.60	3.50-3.80	0.80-1.20			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211513	211514	211516	211517	211518			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND	ND	ND	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	ND	ND	ND	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH9-03					Method No	Units	LOD
Sample Depth (m)	3.00							
Date Sampled	05/03/07							
Date Scheduled	08/03/07							
Laboratory Reference No	211519							
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1					022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1					022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1					022S[IM]	mg/kg	0.1
Fluorene	< 0.1					022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1					022S[IM]	mg/kg	0.1
Anthracene	< 0.1					022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1					022S[IM]	mg/kg	0.1
Pyrene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1					022S[IM]	mg/kg	0.1
Chrysene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1					022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1					022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1					022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND					022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND					022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-03				Method No	Units	LOD
Sample Depth (m)	0.50-1.00	3.50-4.00						
Date Sampled	05/03/07	05/03/07						
Date Scheduled	08/03/07	08/03/07						
Laboratory Reference No	211505	211515						
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150	< 150				053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150				053S[I]	ug/kg	150
Acenaphthylene	< 150	< 150				053S[I]	ug/kg	150
Acenaphthene	< 150	< 150				053S[I]	ug/kg	150
Fluorene	< 150	< 150				053S[I]	ug/kg	150
Phenanthrene	< 150	< 150				053S[I]	ug/kg	150
Anthracene	< 150	< 150				053S[I]	ug/kg	150
Fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Pyrene	< 150	< 150				053S[IM]	ug/kg	150
Benz(a)anthracene	< 150	< 150				053S	ug/kg	150
Chrysene	< 150	< 150				053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Benzo(a)pyrene	< 150	< 150				053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150	< 150				053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150	< 150				053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150	< 150				053S[I]	ug/kg	150
Phenol	< 150	< 150				053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150				053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200				053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200				053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300				053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250				053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150				053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150				053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300				053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-03				Method No	Units	LOD
Sample Depth (m)	0.50-1.00	3.50-4.00						
Date Sampled	05/03/07	05/03/07						
Date Scheduled	08/03/07	08/03/07						
Laboratory Reference No	211505	211515						
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250				053S	ug/kg	250
Pentachlorophenol	< 250	< 250				053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200				053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200				053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	< 150				053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150				053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150				053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200				053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150				053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200				053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150				053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200				053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150				053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200				053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200				053S	ug/kg	200
Azobenzene	< 200	< 200				053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150				053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200				053S[I]	ug/kg	200
Isophorone	< 200	< 200				053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150				053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150				053S[IM]	ug/kg	150
Anthraquinone	< 150	< 150				053S	ug/kg	150
Aniline	< 150	< 150				053S[I]	ug/kg	150
Di-n-octyl phthalate	< 150	< 150				053S[I]	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300				053S	ug/kg	300
2-Methylnapthalene	< 150	< 150				053S[I]	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-03				Method No	Units	LOD
Sample Depth (m)	0.50-1.00	3.50-4.00						
Date Sampled	05/03/07	05/03/07						
Date Scheduled	08/03/07	08/03/07						
Laboratory Reference No	211505	211515						
Analysis								
2-nitroaniline	< 250	< 250				053S[I]	ug/kg	250
3-nitroaniline	< 200	< 200				053S	ug/kg	200
4-Chloroaniline	< 200	< 200				053S	ug/kg	200
4-nitroaniline	< 250	< 250				053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	< 300				053S	ug/kg	300
Carbazole	< 100	< 100				053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150				053S[IM]	ug/kg	150
Biphenyl	< 150	< 150				053S	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-01	BH2-02	BH2-02	BH2-02	Method No	Units	LOD
Sample Depth (m)	0.50-1.00	0.60	0.60	2.00	5.00			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211505	211508	211509	211511	211512			
Analysis								
* * VOC SUITE * *								
MTBE	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
Benzene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
Toluene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
Ethylbenzene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
m,p-Xylenes	-	-	-	-	< 0.05	071S[I]	mg/kg	0.05
o-Xylene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	-	-	-	< 0.025	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	< 25	-	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	< 25	-	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	< 50	-	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
MTBE	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-01	BH2-02	BH2-02	BH2-02	Method No	Units	LOD
Sample Depth (m)	0.50-1.00	0.60	0.60	2.00	5.00			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211505	211508	211509	211511	211512			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Toluene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
m,p-Xylenes	< 50	< 50	< 50	< 50	-	071S	ug/kg	50
Bromoform	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Styrene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH1-01	BH2-01	BH2-02	BH2-02	BH2-02	Method No	Units	LOD
Sample Depth (m)	0.50-1.00	0.60	0.60	2.00	5.00			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211505	211508	211509	211511	211512			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
sec-butylbenzene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	< 25	< 25	-	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	< 25	-	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	< 50	-	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	< 25	-	071S	ug/kg	25

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‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-03	BH2-03	BH2-03	BH9-02	BH9-03	Method No	Units	LOD
Sample Depth (m)	0.60	2.50	3.50-4.00	0.60	0.80-1.20			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211513	211514	211515	211516	211518‡			
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
Benzene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
Toluene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	-	-	-	-	071S[I]	mg/kg	0.05
o-Xylene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	-	-	-	-	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Chloromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Vinyl Chloride	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
Bromomethane	-	< 25	< 25	< 25	< 250	071S[I]	ug/kg	25
Chloroethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Trichlorofluoromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,1-Dichloroethene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	< 25	< 25	< 25	< 250	071S[I]	ug/kg	25
Dichloromethane	-	< 50	< 50	< 50	< 500	071S	ug/kg	50
Carbon Disulfide	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
MTBE	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,1 -Dichloroethane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
Cis-1,2 Dichloroethene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Bromochloromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Chloroform	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
2,2-Dichloropropane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,2-Dichloroethane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,1-Dichloropropene	-	< 25	< 25	< 25	390	071S[IM]	ug/kg	25
Benzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-03	BH2-03	BH2-03	BH9-02	BH9-03	Method No	Units	LOD
Sample Depth (m)	0.60	2.50	3.50-4.00	0.60	0.80-1.20			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211513	211514	211515	211516	211518‡			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	< 25	< 25	< 25	450	071S[IM]	ug/kg	25
Dibromomethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,2-Dichloropropane	-	< 25	< 25	< 25	300	071S[IM]	ug/kg	25
Trichloroethene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Bromodichloromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Toluene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,3 -Dichloropropane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Dibromochloromethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,2-Dibromoethane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Tetrachloroethene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
Chlorobenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Ethyl Benzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
m,p-Xylenes	-	< 50	< 50	< 50	< 500	071S	ug/kg	50
Bromoform	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Styrene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
o-Xylene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,2,3-Trichloropropane	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Isopropylbenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
Bromobenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
n-propylbenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
2-Chlorotoluene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
4-Chlorotoluene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
tert-butylbenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28407
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH2-03	BH2-03	BH2-03	BH9-02	BH9-03	Method No	Units	LOD
Sample Depth (m)	0.60	2.50	3.50-4.00	0.60	0.80-1.20			
Date Sampled	05/03/07	05/03/07	05/03/07	05/03/07	05/03/07			
Date Scheduled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Laboratory Reference No	211513	211514	211515	211516	211518‡			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
sec-butylbenzene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,4 Dichlorobenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
4-Isopropyltoluene	-	< 25	< 25	< 25	< 250	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
n-butylbenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,2,4-Trichlorobenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	< 25	< 25	< 25	< 250	071S	ug/kg	25
Hexachlorobutadiene	-	< 50	< 50	< 50	< 500	071S	ug/kg	50
1,2,3-Trichlorobenzene	-	< 25	< 25	< 25	< 250	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-28407
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
211505	BH1-01	0.50-1.00	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
211506	BH1-01	1.50-2.00	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from before C10 to beyond C40.
211507	BH1-01	2.50-3.00	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from before C10 to beyond C40.
211508	BH2-01	0.6	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.
211509	BH2-02	0.6	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40.
211511	BH2-02	2.0	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
211512	BH2-02	5.0	05/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40.
211513	BH2-03	0.6	05/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
EPH Description

Job Number: 07-28407
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
211514	BH2-03	2.5	05/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
211515	BH2-03	3.50-4.00	05/03/07	The sample chromatogram exhibits a trace primarily consistent with a mixture of degraded diesel and lubrication oil standards.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28407

Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
018	In-house method based on Method 17.13 "Environmental Assessment Guidance" Version 3, Second Site Property, March 2003	Determination of exchangeable ammonium in soil samples (potassium chloride extraction)	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
073S	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of water soluble anion content in soils using a 2:1 water:soil extration ratio followed by ion chromatographic determination with electrical conductivity detector	D
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
025a	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	D

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28407

Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

27 March 2007

TEST REPORT

Our Report Number: 07-28651

Your Order Reference: Instructions of 14/03/2007

7 soil samples submitted for analysis on 14/03/2007

Project Name: Alcoa

Project Code: 64-C11647

Analysis started on 14/03/2007
Analysis completed by 27 March 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Matrix: Soil
Project Name: Alcoa

Job Number: 07-28651
Client: Environ UK Ltd
Project Code: 64-C11647

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
212888	BH18-01	1.2-1.5	12/03/07	Brown sandy clay with gravel
212889	BH18-01	2.0	12/03/07	Brown sandy clay with gravel
212890	BH18-01	4.5	12/03/07	Brown top soil with gravel
212891	BH18-01	7.0	12/03/07	*Brown sludge with gravel
212892	BH18-02	2.0	12/03/07	Brown sandy clay with gravel
212893	BH18-02	3.0	12/03/07	Brown sandy clay with gravel
212894	BH18-02	5.0	12/03/07	Brown top soil with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-01	BH18-01	BH18-01	BH18-01	BH18-02	Method No	Units	LOD
Sample Depth (m)	**1.2-1.5**	**2.0**	**4.5**	**7.0**	**2.0**			
Date Sampled	**12/03/07**	**12/03/07**	**12/03/07**	**12/03/07**	**12/03/07**			
Date Scheduled	**14/03/07**	**14/03/07**	**14/03/07**	**14/03/07**	**14/03/07**			
Laboratory Reference No	**212888**	**212889**	**212890**	**212891**	**212892**			
Analysis								
Moisture Content (Wet Weight)	3.0	10.1	10.8	16.5	8.8		%	0.1
Moisture Content (Dry Weight)	3.1	11.2	12.0	19.8	9.6		%	0.1
Arsenic	18	8.6	8.5	-	8.9	069S[IM]	mg/kg	3
Barium	68	140	100	-	88	069S[IM]	mg/kg	10
Beryllium	0.6	1.2	1.0	-	1.0	069S[IM]	mg/kg	0.5
Boron (W/S)	0.5	< 0.5	< 0.5	-	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5	< 0.5	-	< 0.5	069S[IM]	mg/kg	0.5
Chromium	16	29	28	22	24	069S[IM]	mg/kg	10
Chromium (Hexavalent)	< 5	< 5	< 5	< 5	< 5	007S	mg/kg	5
Copper	44	31	61	-	23	069S[IM]	mg/kg	5
Lead	42	24	44	-	21	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	-	< 0.6	069S[IM]	mg/kg	0.6
Nickel	13	31	25	-	24	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	-	< 2.5	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	2200	-	220	-	420	025a[IM]	mg/kg	200
Vanadium	14	22	18	-	21	069S[IM]	mg/kg	3
Zinc	98	76	73	-	57	069S[IM]	mg/kg	10
Organic Carbon	-	0.93	-	-	-	092[IM]	%	0.1
pH	8.1	7.7	5.5	6.2	7.6	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	110	-	72	-	22	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-02	BH18-02				Method No	Units	LOD
Sample Depth (m)	3.0	5.0						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212893	212894						
Analysis								
Moisture Content (Wet Weight)	8.9	6.8					%	0.1
Moisture Content (Dry Weight)	9.8	7.3					%	0.1
Arsenic	7.9	11				069S[IM]	mg/kg	3
Barium	65	70				069S[IM]	mg/kg	10
Beryllium	0.9	0.8				069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	< 0.5				016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5				069S[IM]	mg/kg	0.5
Chromium	37	35				069S[IM]	mg/kg	10
Chromium (Hexavalent)	< 5	< 5				007S	mg/kg	5
Copper	22	120				069S[IM]	mg/kg	5
Lead	21	24				069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6				069S[IM]	mg/kg	0.6
Nickel	21	29				069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5				069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	290	-				025a[IM]	mg/kg	200
Vanadium	18	16				069S[IM]	mg/kg	3
Zinc	53	82				069S[IM]	mg/kg	10
Organic Carbon	-	-				092[IM]	%	0.1
pH	7.5	7.6				009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	25	-				070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-01	BH18-02				Method No	Units	LOD
Sample Depth (m)	1.2-1.5	2.0						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212888	212892						
Analysis								
*** * PAH SUITE * ***								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-01	BH18-02				Method No	Units	LOD
Sample Depth (m)	1.2-1.5	2.0						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212888	212892						
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25				071S[IM]	ug/kg	25
Chloromethane	< 25	< 25				071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25				071S	ug/kg	25
Bromomethane	< 25	< 25				071S[I]	ug/kg	25
Chloroethane	< 25	< 25				071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25				071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25				071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25				071S[I]	ug/kg	25
Dichloromethane	< 50	< 50				071S	ug/kg	50
Carbon Disulfide	< 25	< 25				071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25				071S	ug/kg	25
MTBE	< 25	< 25				071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25				071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25				071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25				071S[IM]	ug/kg	25
Chloroform	< 25	< 25				071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25				071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25				071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25				071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25				071S[IM]	ug/kg	25
Benzene	< 25	< 25				071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25				071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25				071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25				071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25				071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25				071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25				071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25				071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25				071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-01	BH18-02				Method No	Units	LOD
Sample Depth (m)	1.2-1.5	2.0						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212888	212892						
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 25				071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25				071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25				071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25				071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25				071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25				071S	ug/kg	25
Chlorobenzene	< 25	< 25				071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25				071S	ug/kg	25
m,p-Xylenes	< 50	< 50				071S	ug/kg	50
Bromoform	< 25	< 25				071S[IM]	ug/kg	25
Styrene	< 25	< 25				071S[IM]	ug/kg	25
o-Xylene	< 25	< 25				071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25				071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25				071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25				071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25				071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25				071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25				071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25				071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25				071S	ug/kg	25
tert-butylbenzene	< 25	< 25				071S[IM]	ug/kg	25
1,2,4 Trimethylbenzene	< 25	< 25				071S	ug/kg	25
sec-butylbenzene	< 25	< 25				071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25				071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25				071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25				071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25				071S	ug/kg	25
n-butylbenzene	< 25	< 25				071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH18-01	BH18-02				Method No	Units	LOD
Sample Depth (m)	1.2-1.5	2.0						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212888	212892						
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25				071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50				071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Matrix: Soils
Project Name: Alcoa

Job Number: 07-28651
Client: Environ UK Ltd
Project Code: 64-C11647

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
212888	BH18-01	1.2-1.5	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
212890	BH18-01	4.5	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40.
212892	BH18-02	2.0	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C38.
212893	BH18-02	3.0	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C38.

ALcontrol Technichem
Table Of Results - Appendix

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651

Project Code: 64-C11647

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
071S	In-house method based on EPA624 "Volatile Organic Compounds in Soils/Sludges"	Determination of volatile organic compounds in soil samples by headspace GC-MS	W
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
092	In-house method	Determination of organic content and organic carbon in soil samples by combustion analyser	D
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
025a	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
007S	In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of hexavalent chromium in soil samples by water extraction and colorimetric detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C

ALcontrol Technichem
Table Of Results - Appendix

Project Name: Alcoa
Client : Environ UK Ltd

Job Number : 07-28651

Project Code: 64-C11647

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
		determined gravimetrically using weight loss on drying at 30° (+/-5) C.	

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
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SN13 0RR

26 March 2007

TEST REPORT

Our Report Number: 07-28659

Your Order Reference: Instructions of 14/03/2007

5 soil samples submitted for analysis on 14/03/2007

Project Name: Alcoa

Project Code: 64-C11647

Laboratory analysis started on 14/03/2007
All laboratory analysis completed by 26 March 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-28659
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
212925	BH11-01	1.5-2	-	Brown sandy clay
212926	BH11-01	4.5-5	-	Brown sandy clay
212927	BH11-02	1.0	-	Brown sandy clay with gravel
212928	BH11-02	3.0	-	Brown sandy clay
212929	BH11-02	5.0	-	Brown sandy clay

ALcontrol Technichem
Table Of Results

Job Number : 07-28659
Matrix : Soil
Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH11-01	BH11-01	BH11-02	BH11-02	BH11-02	Method No	Units	LOD
Sample Depth (m)	1.5-2	4.5-5	1.0	3.0	5.0			
Date Sampled	-	-	-	-	-			
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Laboratory Reference No	212925	212926	212927	212928	212929			
Analysis								
Moisture Content (Wet Weight)	5.6	8.9	9.0	15.5	13.4		%	0.1
Moisture Content (Dry Weight)	6.0	9.8	9.8	18.3	15.5		%	0.1
Arsenic	7.7	5.4	7.2	12	10	069S[IM]	mg/kg	3
Barium	61	76	100	99	77	069S[IM]	mg/kg	10
Beryllium	0.6	1.0	1.1	1.0	0.9	069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	0.6	< 0.5	< 0.5	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	15	30	22	32	32	069S[IM]	mg/kg	10
Copper	20	20	24	18	20	069S[IM]	mg/kg	5
Lead	18	23	23	28	22	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	16	17	30	19	21	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	15	27	19	32	20	069S[IM]	mg/kg	3
Zinc	42	57	66	78	61	069S[IM]	mg/kg	10
pH	7.5	4.9	6.3	5.4	5.5	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	43	31	25	9	24	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28659
Matrix : Soil
Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH11-01	BH11-02				Method No	Units	LOD
Sample Depth (m)	4.5-5	1.0						
Date Sampled	-	-						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212926	212927						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28659
Matrix : Soil
Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH11-01	BH11-01	BH11-02	BH11-02		Method No	Units	LOD
Sample Depth (m)	1.5-2	4.5-5	1.0	3.0				
Date Sampled	-	-	-	-				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212925	212926	212927	212928				
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
Benzene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
Toluene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	-	< 0.05	< 0.05		071S[I]	mg/kg	0.05
o-Xylene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	-	< 0.025	< 0.025		071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	< 25	-	-		071S[IM]	ug/kg	25
Chloromethane	-	< 25	-	-		071S[IM]	ug/kg	25
Vinyl Chloride	-	< 25	-	-		071S	ug/kg	25
Bromomethane	-	< 25	-	-		071S[I]	ug/kg	25
Chloroethane	-	< 25	-	-		071S[IM]	ug/kg	25
Trichlorofluoromethane	-	< 25	-	-		071S[IM]	ug/kg	25
1,1-Dichloroethene	-	< 25	-	-		071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	< 25	-	-		071S[I]	ug/kg	25
Dichloromethane	-	< 50	-	-		071S	ug/kg	50
Carbon Disulfide	-	< 25	-	-		071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	< 25	-	-		071S	ug/kg	25
MTBE	-	< 25	-	-		071S	ug/kg	25
1,1 -Dichloroethane	-	< 25	-	-		071S	ug/kg	25
Cis-1,2 Dichloroethene	-	< 25	-	-		071S[IM]	ug/kg	25
Bromochloromethane	-	< 25	-	-		071S[IM]	ug/kg	25
Chloroform	-	< 25	-	-		071S[IM]	ug/kg	25
2,2-Dichloropropane	-	< 25	-	-		071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	< 25	-	-		071S	ug/kg	25
1,2-Dichloroethane	-	< 25	-	-		071S	ug/kg	25
1,1-Dichloropropene	-	< 25	-	-		071S[IM]	ug/kg	25
Benzene	-	< 25	-	-		071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28659
Matrix : Soil
Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH11-01	BH11-01	BH11-02	BH11-02		Method No	Units	LOD
Sample Depth (m)	1.5-2	4.5-5	1.0	3.0				
Date Sampled	-	-	-	-				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212925	212926	212927	212928				
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	< 25	-	-		071S[IM]	ug/kg	25
Dibromomethane	-	< 25	-	-		071S[IM]	ug/kg	25
1,2-Dichloropropane	-	< 25	-	-		071S[IM]	ug/kg	25
Trichloroethene	-	< 25	-	-		071S[IM]	ug/kg	25
Bromodichloromethane	-	< 25	-	-		071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	< 25	-	-		071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	< 25	-	-		071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	< 25	-	-		071S[IM]	ug/kg	25
Toluene	-	< 25	-	-		071S	ug/kg	25
1,3 -Dichloropropane	-	< 25	-	-		071S[IM]	ug/kg	25
Dibromochloromethane	-	< 25	-	-		071S[IM]	ug/kg	25
1,2-Dibromoethane	-	< 25	-	-		071S[IM]	ug/kg	25
Tetrachloroethene	-	< 25	-	-		071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	< 25	-	-		071S	ug/kg	25
Chlorobenzene	-	< 25	-	-		071S[IM]	ug/kg	25
Ethyl Benzene	-	< 25	-	-		071S	ug/kg	25
m,p-Xylenes	-	< 50	-	-		071S	ug/kg	50
Bromoform	-	< 25	-	-		071S[IM]	ug/kg	25
Styrene	-	< 25	-	-		071S[IM]	ug/kg	25
o-Xylene	-	< 25	-	-		071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	< 25	-	-		071S	ug/kg	25
1,2,3-Trichloropropane	-	< 25	-	-		071S[IM]	ug/kg	25
Isopropylbenzene	-	< 25	-	-		071S[IM]	ug/kg	25
Bromobenzene	-	< 25	-	-		071S[IM]	ug/kg	25
n-propylbenzene	-	< 25	-	-		071S[IM]	ug/kg	25
2-Chlorotoluene	-	< 25	-	-		071S[IM]	ug/kg	25
4-Chlorotoluene	-	< 25	-	-		071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	< 25	-	-		071S	ug/kg	25
tert-butylbenzene	-	< 25	-	-		071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28659
Matrix : Soil
Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH11-01	BH11-01	BH11-02	BH11-02		Method No	Units	LOD
Sample Depth (m)	1.5-2	4.5-5	1.0	3.0				
Date Sampled	-	-	-	-				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212925	212926	212927	212928				
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	< 25	-	-		071S	ug/kg	25
sec-butylbenzene	-	< 25	-	-		071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	< 25	-	-		071S	ug/kg	25
1,4 Dichlorobenzene	-	< 25	-	-		071S	ug/kg	25
4-Isopropyltoluene	-	< 25	-	-		071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	< 25	-	-		071S	ug/kg	25
n-butylbenzene	-	< 25	-	-		071S	ug/kg	25
1,2,4-Trichlorobenzene	-	< 25	-	-		071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	< 25	-	-		071S	ug/kg	25
Hexachlorobutadiene	-	< 50	-	-		071S	ug/kg	50
1,2,3-Trichlorobenzene	-	< 25	-	-		071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-28659
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
212925	BH11-01	1.5-2	-	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40, overlain by a series of n-alkane peaks eluting through the diesel range.
212926	BH11-01	4.5-5	-	The sample chromatogram exhibits a hump of unresolved complex material eluting from C16 to C40.
212927	BH11-02	1.0	-	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40, overlain by a series of n-alkane peaks eluting through the diesel range.
212928	BH11-02	3.0	-	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
212929	BH11-02	5.0	-	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28659

Project Code: 64-C11647

Project Name: Alcoa
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
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Wiltshire
SN13 0RR

27 March 2007

TEST REPORT

Our Report Number: 07-28668

Your Order Reference: Instructions of 14/03/2007

14 soil samples submitted for analysis on 14/03/2007

Project Name: Alcoa

Project Code: 64C11647

Laboratory analysis started on 14/03/2007
All laboratory analysis completed by 27 March 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Job Number: 07-28668
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
212965	WS12-01	0.5	12/03/07	*Dark grey gravel with clay
212966	WS12-01	2.8-3	12/03/07	*Grey clinker / ash
212967	WS13-01	0.8-1.0	12/03/07	*Dark grey clinker / ash
212968	WS13-01	2.2-2.5	12/03/07	*Grey clinker / ash with clay
212969	WS13-02	0.5-1	12/03/07	*Black clinker / ash with rubble
212970	WS13-02	1.8-2	12/03/07	*Black clinker / ash
212971	WS13-03	0.3-0.5	12/03/07	*Dark grey clinker / ash
212972	WS13-03	1.2-1.4	12/03/07	Dark brown clay
212973	WS13-04	0.6-0.8	12/03/07	*Dark grey clinker / ash
212974	WS13-04	0.3	12/03/07	*Grey clinker / ash
212975	WS13-04	1-1.4	12/03/07	*Grey clinker / ash
212976	WS13-05	0.3	12/03/07	Dark grey clay with rubble
212977	WS13-05	0.7-0.8	12/03/07	Grey & brown clay
212978	WS13-05	1.2	12/03/07	Dark grey clay

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS12-01	WS12-01	WS13-01	WS13-01	WS13-02	Method No	Units	LOD
Sample Depth (m)	0.5	2.8-3	0.8-1.0	2.2-2.5	0.5-1			
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07	12/03/07			
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Laboratory Reference No	212965	212966	212967	212968	212969			
Analysis								
Moisture Content (Wet Weight)	5.6	7.5	7.5	6.8	7.3		%	0.1
Moisture Content (Dry Weight)	6.0	8.1	8.1	7.4	7.9		%	0.1
Arsenic	-	-	14	29	7.1	069S[IM]	mg/kg	3
Barium	-	-	34	33	25	069S[IM]	mg/kg	10
Beryllium	-	-	0.5	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Boron (W/S)	-	-	< 0.5	1.0	0.5	016S[IM]	mg/kg	0.5
Cadmium	-	-	< 0.5	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	-	-	780	800	6200	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	6.5	6.0	14	007S	mg/kg	5
Copper	-	-	48	26	14	069S[IM]	mg/kg	5
Lead	-	-	51	23	17	069S[IM]	mg/kg	10
Mercury	-	-	< 0.6	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	-	-	14	5.8	10	069S[IM]	mg/kg	4
Selenium	-	-	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	-	-	-	-	025a[IM]	mg/kg	200
Vanadium	-	-	13	9.1	9.8	069S[IM]	mg/kg	3
Zinc	-	-	44	120	43	069S[IM]	mg/kg	10
pH	10.3	8.0	7.2	10.2	7.7	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	360	1100	-	370	41	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-02	WS13-03	WS13-03	WS13-04	WS13-04	Method No	Units	LOD
Sample Depth (m)	1.8-2	0.3-0.5	1.2-1.4	0.6-0.8	0.3			
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07	12/03/07			
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Laboratory Reference No	212970	212971	212972	212973	212974			
Analysis								
Moisture Content (Wet Weight)	10.3	4.2	19.1	5.4	6.2		%	0.1
Moisture Content (Dry Weight)	11.5	4.4	23.6	5.7	6.6		%	0.1
Arsenic	10	13	12	9.6	4.7	069S[IM]	mg/kg	3
Barium	17	24	94	27	< 10	069S[IM]	mg/kg	10
Beryllium	< 0.5	< 0.5	0.7	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Boron (W/S)	0.9	< 0.5	< 0.5	< 0.5	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	10000	3400	1600	1600	1600	069S[IM]	mg/kg	10
Chromium (Hexavalent)	16	12	18	18	400	007S	mg/kg	5
Copper	8.9	19	11	26	10	069S[IM]	mg/kg	5
Lead	< 10	16	24	22	< 10	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	5.5	4.5	15	5.5	< 4	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	-	-	-	-	025a[IM]	mg/kg	200
Vanadium	13	9.8	35	10	5.2	069S[IM]	mg/kg	3
Zinc	31	37	39	41	16	069S[IM]	mg/kg	10
pH	8.4	7.9	8.4	9.0	7.2	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	60	28	59	23	14	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-04	WS13-05	WS13-05	WS13-05		Method No	Units	LOD
Sample Depth (m)	1-1.4	0.3	0.7-0.8	1.2				
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212975	212976	212977	212978				
Analysis								
Moisture Content (Wet Weight)	6.2	9.5	20.0	22.1			%	0.1
Moisture Content (Dry Weight)	6.6	10.5	24.9	28.3			%	0.1
Arsenic	4.9	370	36	6.1		069S[IM]	mg/kg	3
Barium	10	210	85	64		069S[IM]	mg/kg	10
Beryllium	< 0.5	2.3	0.7	0.6		069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	0.8	< 0.5	< 0.5		016S[IM]	mg/kg	0.5
Cadmium	< 0.5	0.7	< 0.5	< 0.5		069S[IM]	mg/kg	0.5
Chromium	1500	60	38	15		069S[IM]	mg/kg	10
Chromium (Hexavalent)	430	< 5	< 5	< 5		007S	mg/kg	5
Copper	10	320	14	9.7		069S[IM]	mg/kg	5
Lead	< 10	250	26	18		069S[IM]	mg/kg	10
Mercury	< 0.6	1.7	< 0.6	< 0.6		069S[IM]	mg/kg	0.6
Nickel	< 4	34	16	9.3		069S[IM]	mg/kg	4
Selenium	< 2.5	5.2	< 2.5	< 2.5		069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	-	-	< 200		025a[IM]	mg/kg	200
Vanadium	5.9	32	29	17		069S[IM]	mg/kg	3
Zinc	16	1200	67	30		069S[IM]	mg/kg	10
pH	7.1	7.6	6.4	6.1		009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	22	360	27	-		070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS12-01	WS13-01	WS13-02	WS13-03	WS13-05	Method No	Units	LOD
Sample Depth (m)	0.5	0.8-1.0	1.8-2	1.2-1.4	1.2			
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07	12/03/07			
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Laboratory Reference No	212965	212967	212970	212972	212978			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	0.16	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	0.16	ND	ND	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	0.16	ND	ND	ND	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-01	WS13-05				Method No	Units	LOD
Sample Depth (m)	0.8-1.0	1.2						
Date Sampled	12/03/07	12/03/07						
Date Scheduled	14/03/07	14/03/07						
Laboratory Reference No	212967	212978						
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.03	0.01				CWGS	mg/kg	0.01
Aliphatic >C8-C10	0.23	< 0.01				CWGS	mg/kg	0.01
Aliphatic >C10-C12	1.7	0.02				CWGS	mg/kg	0.01
Aliphatic >C12-C16	75	52				CWGS[I]	mg/kg	5
Aliphatic >C16-C21	180	54				CWGS[I]	mg/kg	5
Aliphatic >C21-C35	83	28				CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	340	130				CWGS	mg/kg	5
Aromatic C6-C7	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aromatic >C8-C10	0.35	0.01				CWGS	mg/kg	0.01
Aromatic >C10-C12	2.6	0.03				CWGS	mg/kg	0.01
Aromatic >C12-C16	42	5.9				CWGS[I]	mg/kg	5
Aromatic >C16-C21	58	13				CWGS[I]	mg/kg	5
Aromatic >C21-C35	29	24				CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	130	43				CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	4.9	0.08				CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	470	180				CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	470	180				CWGS	mg/kg	5
MTBE	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Benzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Toluene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	0.035	< 0.010				CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-01	WS13-02	WS13-03	WS13-05		Method No	Units	LOD
Sample Depth (m)	2.2-2.5	1.8-2	1.2-1.4	1.2				
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212968	212970	212972	212978				
Analysis								
* * VOC SUITE * *								
MTBE	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
Benzene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
Toluene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
Ethylbenzene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
m,p-Xylenes	-	< 0.05	< 0.05	-		071S[I]	mg/kg	0.05
o-Xylene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	< 0.025	< 0.025	-		071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Chloromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Vinyl Chloride	< 25	-	-	< 25		071S	ug/kg	25
Bromomethane	< 25	-	-	< 25		071S[I]	ug/kg	25
Chloroethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	-	-	< 25		071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	-	-	< 25		071S[I]	ug/kg	25
Dichloromethane	< 50	-	-	< 50		071S	ug/kg	50
Carbon Disulfide	< 25	-	-	< 25		071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	-	-	< 25		071S	ug/kg	25
MTBE	< 25	-	-	< 25		071S	ug/kg	25
1,1 -Dichloroethane	< 25	-	-	< 25		071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Bromochloromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Chloroform	< 25	-	-	< 25		071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	-	-	< 25		071S	ug/kg	25
1,2-Dichloroethane	< 25	-	-	< 25		071S	ug/kg	25
1,1-Dichloropropene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Benzene	< 25	-	-	< 25		071S	ug/kg	25

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[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-01	WS13-02	WS13-03	WS13-05		Method No	Units	LOD
Sample Depth (m)	2.2-2.5	1.8-2	1.2-1.4	1.2				
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212968	212970	212972	212978				
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	-	-	< 25		071S[IM]	ug/kg	25
Dibromomethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Trichloroethene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Bromodichloromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Toluene	< 25	-	-	< 25		071S	ug/kg	25
1,3 -Dichloropropane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Dibromochloromethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Tetrachloroethene	< 25	-	-	< 25		071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	-	-	< 25		071S	ug/kg	25
Chlorobenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Ethyl Benzene	< 25	-	-	< 25		071S	ug/kg	25
m,p-Xylenes	< 50	-	-	< 50		071S	ug/kg	50
Bromoform	< 25	-	-	< 25		071S[IM]	ug/kg	25
Styrene	< 25	-	-	< 25		071S[IM]	ug/kg	25
o-Xylene	< 25	-	-	< 25		071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	-	-	< 25		071S	ug/kg	25
1,2,3-Trichloropropane	< 25	-	-	< 25		071S[IM]	ug/kg	25
Isopropylbenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25
Bromobenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25
n-propylbenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	-	-	< 25		071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	-	-	< 25		071S	ug/kg	25
tert-butylbenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28668
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS13-01	WS13-02	WS13-03	WS13-05		Method No	Units	LOD
Sample Depth (m)	2.2-2.5	1.8-2	1.2-1.4	1.2				
Date Sampled	12/03/07	12/03/07	12/03/07	12/03/07				
Date Scheduled	14/03/07	14/03/07	14/03/07	14/03/07				
Laboratory Reference No	212968	212970	212972	212978				
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	-	-	< 25		071S	ug/kg	25
sec-butylbenzene	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	-	-	< 25		071S	ug/kg	25
1,4 Dichlorobenzene	< 25	-	-	< 25		071S	ug/kg	25
4-Isopropyltoluene	< 25	-	-	< 25		071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	-	-	< 25		071S	ug/kg	25
n-butylbenzene	< 25	-	-	< 25		071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	-	-	< 25		071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	-	-	< 25		071S	ug/kg	25
Hexachlorobutadiene	< 50	-	-	< 50		071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	-	-	< 25		071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-28668
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
212965	WS12-01	0.5	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C13 to C40 overlain by a series of n-alkane peaks eluting from C14 to C22.
212966	WS12-01	2.8-3	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C11 to beyond C40 overlain by several peaks unidentifiable by this analysis.
212968	WS13-01	2.2-2.5	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40 overlain by several peaks unidentifiable by this analysis.
212969	WS13-02	0.5-1	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40.
212970	WS13-02	1.8-2	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
212971	WS13-03	0.3-0.5	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C16 to C40.
212972	WS13-03	1.2-1.4	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from before C10 to C40, overlain by several peaks unidentifiable by this analysis.
212973	WS13-04	0.6-0.8	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.

ALcontrol Technichem
EPH Description

Job Number: 07-28668
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
212974	WS13-04	0.3	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
212975	WS13-04	1-1.4	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C38.
212976	WS13-05	0.3	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40 overlain by a series of n-alkane peaks eluting through the diesel range.
212977	WS13-05	0.7-0.8	12/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28668

Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
025a	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
007S	In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of hexavalent chromium in soil samples by water extraction and colorimetric detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

27 March 2007

TEST REPORT

Our Report Number: 07-28722

Your Order Reference: Instructions of 09/03/2007

33 soil samples submitted for analysis on 09/03/2007

Project Name: Alcoa

Project Code: 64C11649

Laboratory analysis started on 15/03/2007
All laboratory analysis completed by 27 March 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
213162	WS16_01	0.5-0.6m	08/03/07	Grey & brown sand with gravel
213163	WS16_01	1.8-1.9m	08/03/07	Grey sand with gravel
213164	WS16_02	0.4-0.6m	08/03/07	Grey sand with gravel and oil / petroleum
213165	WS16_02	0.7-0.8m	08/03/07	Grey sandy clay with gravel
213166	WS14_01	0-0.2m	08/03/07	Grey sand with gravel
213167	WS7_01	0.5m	08/03/07	Grey sand with gravel and oil / petroleum
213168	WS4_01	0.4-0.6m	08/03/07	Brown sandy clay with gravel
213169	WS4_01	1.3m	08/03/07	Brown sandy clay with gravel
213170	WS17_02	0.6m	08/03/07	Grey sandy clay with gravel
213171	WS17_02	2.5m	08/03/07	Brown sandy clay with gravel
213172	WS17_01	0.4-0.5m	08/03/07	Grey sand with gravel and oil / petroleum
213173	HP17_01	0.2-0.35m	08/03/07	Brown sandy clay with gravel
213174	HP17_01	0.6-0.7m	08/03/07	Brown sandy clay with gravel
213175	WS9_01	0.3-0.4m	08/03/07	Brown sandy clay with gravel
213176	WS9_01	1.5-1.6m	08/03/07	Grey sandy clay with gravel
213177	HP9_01	0.5-0.6m	09/03/07	Brown sandy clay with rubble and vegetation
213178	HP9_01	1-1.2m	09/03/07	Brown sandy clay with gravel and vegetation
213179	HP9_02	0-0.1m	09/03/07	Brown sandy clay with gravel and vegetation
213180	HP9_02	0.7m	09/03/07	Brown sandy clay with gravel and oil / petroleum
213181	HP13_01	0.7m	09/03/07	Brown sandy clay with rubble and oil / petroleum

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Sample Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
213182	HP13_01	0.5m	09/03/07	Brown sandy clay with gravel and rubble
213183	BH9_01	1.0m	08/03/07	Brown sand with gravel and brick
213184	BH9_01	2.2m	08/03/07	Grey & brown sandy clay with gravel
213185	BH9_04	0.8-1.0m	08/03/07	Brown sandy clay with gravel
213186	BH9_04	2.0-2.5m	08/03/07	Brown sandy clay with gravel and brick
213187	BH13_02	1.0-1.5m	08/03/07	Grey sandy clay with gravel and oil / petroleum
213188	BH13_02	2.0m	08/03/07	Brown sandy clay with gravel
213189	BH13_03	0.5m	08/03/07	Grey & brown sandy clay with gravel
213190	BH13_03	2.5m	08/03/07	Grey & brown sandy clay with gravel
213191	BH13_01	0.5m	09/03/07	Grey sandy clay with gravel
213192	BH13_01	2.0m	09/03/07	Grey sandy clay with gravel and oil / petroleum
213193	HP8_01	0.05-0.15m	09/03/07	*Grey gravel
213194	HP8_01	0.3-0.5m	09/03/07	Grey sandy clay with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_01	WS16_01	WS16_02	WS16_02	WS14_01	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	1.8-1.9m	0.4-0.6m	0.7-0.8m	0-0.2m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213162	213163	213164	213165	213166			
Analysis								
Moisture Content (Dry Weight)	5.5	7.4	9.7	7.0	3.9		%	0.1
Moisture Content (Wet Weight)	5.2	6.9	8.8	6.5	3.7		%	0.1
Arsenic	14	< 3	7.2	-	-	069S[IM]	mg/kg	3
Barium	200	210	31	-	-	069S[IM]	mg/kg	10
Beryllium	0.5	1.4	< 0.5	-	-	069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	< 0.5	1.2	-	-	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	< 0.5	< 0.5	-	-	069S[IM]	mg/kg	0.5
Chromium	14	27	< 10	-	-	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	-	-	-	007S	mg/kg	5
Copper	57	58	9.9	-	-	069S[IM]	mg/kg	5
Lead	24	19	< 10	-	-	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	-	-	069S[IM]	mg/kg	0.6
Nickel	15	45	8.3	-	-	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	-	-	069S[IM]	mg/kg	2.5
Vanadium	21	21	8.7	-	-	069S[IM]	mg/kg	3
Zinc	44	99	66	-	-	069S[IM]	mg/kg	10
Organic Carbon	-	0.50	-	-	-	092[IM]	%	0.1
pH	7.9	7.7	7.7	7.2	7.6	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	100	9	-	550	150	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	-	-	-	-	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	-	-	-	-	020S[I]	mg/kg	1
Glycols	-	-	Sub-con	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS7_01	WS4_01	WS4_01	WS17_02	WS17_02	Method No	Units	LOD
Sample Depth (m)	0.5m	0.4-0.6m	1.3m	0.6m	2.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213167	213168	213169	213170	213171			
Analysis								
Moisture Content (Dry Weight)	4.9	13.4	12.4	7.8	14.6		%	0.1
Moisture Content (Wet Weight)	4.7	11.8	11.1	7.3	12.7		%	0.1
Arsenic	-	9.9	8.1	19	20	069S[IM]	mg/kg	3
Barium	-	77	59	17	84	069S[IM]	mg/kg	10
Beryllium	-	0.8	0.9	1.1	0.8	069S[IM]	mg/kg	0.5
Boron (W/S)	-	0.6	< 0.5	< 0.5	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	-	< 0.5	< 0.5	1.1	< 0.5	069S[IM]	mg/kg	0.5
Chromium	-	23	14	19	17	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	-	-	-	007S	mg/kg	5
Copper	-	44	20	36	56	069S[IM]	mg/kg	5
Lead	-	54	22	29	270	069S[IM]	mg/kg	10
Mercury	-	< 0.6	< 0.6	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	-	23	26	32	27	069S[IM]	mg/kg	4
Selenium	-	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	-	27	15	10	18	069S[IM]	mg/kg	3
Zinc	-	69	63	95	530	069S[IM]	mg/kg	10
Organic Carbon	-	-	0.91	-	-	092[IM]	%	0.1
pH	7.8	8.1	6.1	6.4	7.7	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	1000	48	10	8	35	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	< 0.002	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	ND	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	-	-	-	-	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	-	-	-	-	020S[I]	mg/kg	1
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS17_01	HP17_01	HP17_01	WS9_01	WS9_01	Method No	Units	LOD
Sample Depth (m)	0.4-0.5m	0.2-0.35m	0.6-0.7m	0.3-0.4m	1.5-1.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213172	213173	213174	213175	213176			
Analysis								
Moisture Content (Dry Weight)	9.7	8.2	9.4	14.2	10.7		%	0.1
Moisture Content (Wet Weight)	8.8	7.6	8.6	12.4	9.7		%	0.1
Arsenic	-	25	28	-	17	069S[IM]	mg/kg	3
Barium	-	170	110	-	160	069S[IM]	mg/kg	10
Beryllium	-	0.7	1.0	-	1.0	069S[IM]	mg/kg	0.5
Boron (W/S)	-	3.9	0.6	-	0.9	016S[IM]	mg/kg	0.5
Cadmium	-	2.6	< 0.5	-	< 0.5	069S[IM]	mg/kg	0.5
Chromium	-	1000	34	-	27	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	-	-	-	007S	mg/kg	5
Copper	-	360	120	-	130	069S[IM]	mg/kg	5
Lead	-	190	78	-	100	069S[IM]	mg/kg	10
Mercury	-	< 0.6	< 0.6	-	< 0.6	069S[IM]	mg/kg	0.6
Nickel	-	140	42	-	35	069S[IM]	mg/kg	4
Selenium	-	< 2.5	< 2.5	-	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	-	48	27	-	23	069S[IM]	mg/kg	3
Zinc	-	720	190	-	210	069S[IM]	mg/kg	10
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
pH	8.3	7.1	7.2	6.9	6.5	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	-	57	-	1300	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	-	-	-	-	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	-	-	-	-	020S[I]	mg/kg	1
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP9_01	HP9_01	HP9_02	HP9_02	HP13_01	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	1-1.2m	0-0.1m	0.7m	0.7m			
Date Sampled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213177	213178	213179	213180	213181			
Analysis								
Moisture Content (Dry Weight)	30.2	51.2	41.6	33.9	17.3		%	0.1
Moisture Content (Wet Weight)	23.2	33.8	29.4	25.3	14.8		%	0.1
Arsenic	100	-	34	-	-	069S[IM]	mg/kg	3
Barium	430	-	66	-	-	069S[IM]	mg/kg	10
Beryllium	1.0	-	< 0.5	-	-	069S[IM]	mg/kg	0.5
Boron (W/S)	0.7	-	0.9	-	-	016S[IM]	mg/kg	0.5
Cadmium	2.9	-	1.4	-	-	069S[IM]	mg/kg	0.5
Chromium	110	-	92	-	-	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	-	-	-	007S	mg/kg	5
Copper	1600	-	89	-	-	069S[IM]	mg/kg	5
Lead	5800	-	76	-	-	069S[IM]	mg/kg	10
Mercury	0.9	-	< 0.6	-	-	069S[IM]	mg/kg	0.6
Nickel	91	-	20	-	-	069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5	-	-	069S[IM]	mg/kg	2.5
Vanadium	70	-	15	-	-	069S[IM]	mg/kg	3
Zinc	1100	-	630	-	-	069S[IM]	mg/kg	10
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
pH	7.3	6.8	6.5	7.1	6.6	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	9400	46000	340000	48000	4600	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	-	-	-	-	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	-	-	-	-	020S[I]	mg/kg	1
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP13_01	BH9_01	BH9_01	BH9_04	BH9_04	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	2.2m	0.8-1.0m	2.0-2.5m			
Date Sampled	09/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213182	213183	213184	213185	213186			
Analysis								
Moisture Content (Dry Weight)	6.6	6.2	36.1	15.1	15.5		%	0.1
Moisture Content (Wet Weight)	6.2	5.8	26.5	13.1	13.4		%	0.1
Arsenic	17	710	160	44	38	069S[IM]	mg/kg	3
Barium	200	260	120	570	270	069S[IM]	mg/kg	10
Beryllium	1.5	1.0	0.9	1.0	0.9	069S[IM]	mg/kg	0.5
Boron (W/S)	0.6	1.0	2.0	1.8	0.9	016S[IM]	mg/kg	0.5
Cadmium	< 0.5	2.1	1.3	1.4	0.7	069S[IM]	mg/kg	0.5
Chromium	28	57	20	63	32	069S[IM]	mg/kg	10
Chromium (Hexavalent)	-	-	-	-	-	007S	mg/kg	5
Copper	51	2900	690	990	530	069S[IM]	mg/kg	5
Lead	52	1300	140	550	270	069S[IM]	mg/kg	10
Mercury	0.8	8.1	0.8	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	47	150	24	66	42	069S[IM]	mg/kg	4
Selenium	< 2.5	20	2.8	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	32	57	28	29	25	069S[IM]	mg/kg	3
Zinc	110	680	1200	840	420	069S[IM]	mg/kg	10
Organic Carbon	-	-	-	-	6.1	092[IM]	%	0.1
pH	6.4	10.1	6.5	6.9	7.2	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	11000	62	190	1600	1300	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	< 0.1	-	-	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	< 1	-	-	< 1	020S[I]	mg/kg	1
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_02	BH13_02	BH13_03	BH13_03	BH13_01	Method No	Units	LOD
Sample Depth (m)	1.0-1.5m	2.0m	0.5m	2.5m	0.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213187	213188	213189	213190	213191			
Analysis								
Moisture Content (Dry Weight)	42.9	18.9	10.1	56.7	12.5		%	0.1
Moisture Content (Wet Weight)	30.0	15.9	9.2	36.2	11.1		%	0.1
Arsenic	130	21	28	9.8	320	069S[IM]	mg/kg	3
Barium	180	100	130	83	370	069S[IM]	mg/kg	10
Beryllium	1.5	1.1	1.2	0.8	0.9	069S[IM]	mg/kg	0.5
Boron (W/S)	0.6	< 0.5	1.8	< 0.5	1.5	016S[IM]	mg/kg	0.5
Cadmium	0.8	< 0.5	< 0.5	< 0.5	1.0	069S[IM]	mg/kg	0.5
Chromium	17	23	350	19	39	069S[IM]	mg/kg	10
Chromium (Hexavalent)	< 5	< 5	< 5	< 5	< 5	007S	mg/kg	5
Copper	69	45	140	26	1100	069S[IM]	mg/kg	5
Lead	56	85	94	22	260	069S[IM]	mg/kg	10
Mercury	0.6	0.6	< 0.6	< 0.6	1.0	069S[IM]	mg/kg	0.6
Nickel	13	25	30	23	32	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	25	29	20	15	27	069S[IM]	mg/kg	3
Zinc	68	87	600	68	1100	069S[IM]	mg/kg	10
Organic Carbon	-	-	-	-	-	092[IM]	%	0.1
pH	6.9	6.5	7.3	7.3	7.3	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	410	-	-	72	8200	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-	-	-	039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	< 0.1	-	< 0.1	-	< 0.1	020S[IM]	mg/kg	0.1
Total Monohydric Phenols	< 1	-	< 1	-	< 1	020S[I]	mg/kg	1
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
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Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_01	HP8_01	HP8_01			Method No	Units	LOD
Sample Depth (m)	2.0m	0.05-0.15m	0.3-0.5m					
Date Sampled	09/03/07	09/03/07	09/03/07					
Date Scheduled	09/03/07	09/03/07	09/03/07					
Laboratory Reference No	213192	213193	213194					
Analysis								
Moisture Content (Dry Weight)	13.4	4.1	19.9				%	0.1
Moisture Content (Wet Weight)	11.8	4.0	16.6				%	0.1
Arsenic	7.8	-	150			069S[IM]	mg/kg	3
Barium	45	-	330			069S[IM]	mg/kg	10
Beryllium	0.6	-	0.8			069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-	< 0.5			016S[IM]	mg/kg	0.5
Cadmium	< 0.5	-	4.5			069S[IM]	mg/kg	0.5
Chromium	15	-	47			069S[IM]	mg/kg	10
Chromium (Hexavalent)	< 5	-	-			007S	mg/kg	5
Copper	19	-	820			069S[IM]	mg/kg	5
Lead	17	-	980			069S[IM]	mg/kg	10
Mercury	< 0.6	-	0.8			069S[IM]	mg/kg	0.6
Nickel	20	-	60			069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5			069S[IM]	mg/kg	2.5
Vanadium	14	-	28			069S[IM]	mg/kg	3
Zinc	57	-	8500			069S[IM]	mg/kg	10
Organic Carbon	-	-	-			092[IM]	%	0.1
pH	5.2	7.2	7.5			009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	210	16000	3400			070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 52	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 101	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 118	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 138	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 153	-	-	-			039S[IM]	mg/kg	0.002
PCB Congener 180	-	-	-			039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	-	-			039S[I]	mg/kg	0.002
* * PHENOLS SUITE * *								
Phenol	-	-	-			020S[IM]	mg/kg	0.1
Total Monohydric Phenols	-	-	-			020S[I]	mg/kg	1
Glycols	-	-	-			MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
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Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_01	WS16_02	WS4_01	WS4_01	WS17_02	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0.4-0.6m	0.4-0.6m	1.3m	2.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213162	213164	213168	213169	213171			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND	ND	ND	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	ND	ND	ND	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
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Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS17_01	HP17_01	WS9_01	HP9_01	HP9_02	Method No	Units	LOD
Sample Depth (m)	0.4-0.5m	0.2-0.35m	0.3-0.4m	0.5-0.6m	0-0.1m			
Date Sampled	08/03/07	08/03/07	08/03/07	09/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213172	213173	213175	213177	213179			
Analysis								
* * PAH SUITE * *								
Naphthalene	0.21	0.13	< 0.1	0.18	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	0.11	0.21	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	0.39	0.55	0.17	0.51	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	0.13	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	0.38	0.63	0.15	0.49	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	0.44	0.52	0.14	0.46	0.13	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	0.24	0.27	< 0.1	0.31	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	0.25	0.35	0.10	0.31	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	0.29	0.36	< 0.1	0.40	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	0.20	0.28	< 0.1	0.29	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	0.24	0.37	< 0.1	0.39	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	0.13	0.22	< 0.1	0.35	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	0.12	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	0.15	0.22	< 0.1	0.52	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	2.20	3.14	0.42	3.36	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	3.04	4.22	0.56	4.34	0.13	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
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Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP13_01	BH9_01	BH9_04	BH13_02	BH13_03	Method No	Units	LOD
Sample Depth (m)	0.5m	1.0m	2.0-2.5m	1.0-1.5m	0.5m			
Date Sampled	09/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213182	213183	213186	213187	213189			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	0.12	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	0.61	0.23	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	0.14	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	1.0	0.17	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	0.79	0.18	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	0.53	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	0.61	0.10	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	0.52	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	0.35	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	0.45	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	0.27	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	0.25	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	4.19	0.62	ND	ND	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	5.50	0.81	ND	ND	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
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Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_01	HP8_01				Method No	Units	LOD
Sample Depth (m)	0.5m	0.3-0.5m						
Date Sampled	09/03/07	09/03/07						
Date Scheduled	09/03/07	09/03/07						
Laboratory Reference No	213191	213194						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	0.13	0.14				022S[IM]	mg/kg	0.1
Fluorene	0.21	0.11				022S[IM]	mg/kg	0.1
Phenanthrene	0.71	1.5				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	0.32				022S[IM]	mg/kg	0.1
Fluoranthene	0.25	2.5				022S[IM]	mg/kg	0.1
Pyrene	0.24	1.8				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	0.12	1.3				022S[IM]	mg/kg	0.1
Chrysene	0.18	1.4				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	0.13	1.4				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	0.83				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	0.10	0.96				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	0.84				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	0.16				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	0.84				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	1.36	10.45				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	2.08	14.07				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_02	WS17_01	HP17_01	WS9_01	BH13_02	Method No	Units	LOD
Sample Depth (m)	0.4-0.6m	0.4-0.5m	0.2-0.35m	0.3-0.4m	2.0m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213164	213172	213173	213175	213188			
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C6-C8	1.2	0.27	0.04	0.02	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C8-C10	58	1.9	0.16	0.02	< 0.01	CWGS	mg/kg	0.01
Aliphatic >C10-C12	180	4.9	0.24	0.13	0.01	CWGS	mg/kg	0.01
Aliphatic >C12-C16	220	1300	17	25	< 5	CWGS[I]	mg/kg	5
Aliphatic >C16-C21	300	6200	82	68	6.1	CWGS[I]	mg/kg	5
Aliphatic >C21-C35	2100	8400	2700	83	7.6	CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	2800	16000	2800	180	14	CWGS	mg/kg	5
Aromatic C6-C7	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	CWGS	mg/kg	0.01
Aromatic >C8-C10	88	2.9	0.24	0.03	< 0.01	CWGS	mg/kg	0.01
Aromatic >C10-C12	270	7.3	0.36	0.19	0.02	CWGS	mg/kg	0.01
Aromatic >C12-C16	16	220	7.7	9.7	< 5	CWGS[I]	mg/kg	5
Aromatic >C16-C21	31	930	34	30	< 5	CWGS[I]	mg/kg	5
Aromatic >C21-C35	500	3000	740	46	< 5	CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	900	4200	780	86	< 5	CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	600	17	1.0	0.39	0.04	CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	3100	20000	3600	260	14	CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	3700	20000	3600	260	14	CWGS	mg/kg	5
MTBE	0.023	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
Benzene	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
Toluene	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
Ethylbenzene	0.46	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010	0.028	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010	0.14	< 0.010	< 0.010	< 0.010	CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	0.5m							
Date Sampled	08/03/07							
Date Scheduled	09/03/07							
Laboratory Reference No	213189							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C6-C8	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C12-C16	13					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	46					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	130					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	190					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aromatic >C10-C12	< 0.01					CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aromatic >C16-C21	12					CWGS[I]	mg/kg	5
Aromatic >C21-C35	30					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	42					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	< 0.01					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	230					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	230					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010					CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP13_01					Method No	Units	LOD
Sample Depth (m)	0.5m							
Date Sampled	09/03/07							
Date Scheduled	09/03/07							
Laboratory Reference No	213182							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150					053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150					053S[I]	ug/kg	150
Acenaphthylene	< 150					053S[I]	ug/kg	150
Acenaphthene	< 150					053S[I]	ug/kg	150
Fluorene	< 150					053S[I]	ug/kg	150
Phenanthrene	< 150					053S[I]	ug/kg	150
Anthracene	< 150					053S[I]	ug/kg	150
Fluoranthene	< 150					053S[I]	ug/kg	150
Pyrene	< 150					053S[IM]	ug/kg	150
Benz(a)anthracene	< 150					053S	ug/kg	150
Chrysene	< 150					053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(a)pyrene	< 150					053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150					053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150					053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150					053S[I]	ug/kg	150
Phenol	< 150					053S[I]	ug/kg	150
2-Chlorophenol	< 150					053S[IM]	ug/kg	150
2-Methylphenol	< 200					053S[I]	ug/kg	200
4-Methylphenol	< 200					053S[IM]	ug/kg	200
2-Nitrophenol	< 300					053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250					053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200					053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200					053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150					053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150					053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200					053S[IM]	ug/kg	200
4-Nitrophenol	< 300					053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP13_01					Method No	Units	LOD
Sample Depth (m)	0.5m							
Date Sampled	09/03/07							
Date Scheduled	09/03/07							
Laboratory Reference No	213182							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250					053S	ug/kg	250
Pentachlorophenol	< 250					053S	ug/kg	250
Dimethyl Phthalate	< 200					053S[IM]	ug/kg	200
Diethyl Phthalate	< 200					053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150					053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150					053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150					053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200					053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150					053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200					053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200					053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150					053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200					053S[I]	ug/kg	200
Nitrobenzene	< 150					053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200					053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200					053S	ug/kg	200
2,4-Dinitrotoluene	< 200					053S	ug/kg	200
Azobenzene	< 200					053S[I]	ug/kg	200
Hexachlorobenzene	< 200					053S[IM]	ug/kg	200
Hexachloroethane	< 150					053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200					053S[I]	ug/kg	200
Isophorone	< 200					053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150					053S[I]	ug/kg	150
Hexachlorobutadiene	< 150					053S[IM]	ug/kg	150
Anthraquinone	< 150					053S	ug/kg	150
Dibenzofuran	< 150					053S[IM]	ug/kg	150
Carbazole	< 100					053S[I]	ug/kg	100
Bis (2-ethylhexyl) phthalate	< 300					053S	ug/kg	300
4-nitroaniline	< 250					053S	ug/kg	250

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP13_01					Method No	Units	LOD
Sample Depth (m)	0.5m							
Date Sampled	09/03/07							
Date Scheduled	09/03/07							
Laboratory Reference No	213182							
Analysis								
4-Chloroaniline	< 200					053S	ug/kg	200
3-nitroaniline	< 200					053S	ug/kg	200
2-nitroaniline	< 250					053S[I]	ug/kg	250
2-Methylnapthalene	< 150					053S[I]	ug/kg	150
Hexachlorocyclopentadiene	< 300					053S	ug/kg	300
Di-n-octyl phthalate	< 150					053S[I]	ug/kg	150
Aniline	< 150					053S[I]	ug/kg	150
Biphenyl	< 150					053S	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_01	WS16_02	WS16_02	WS4_01	WS17_02	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0.4-0.6m	0.7-0.8m	0.4-0.6m	0.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213162	213164	213165	213168	213170			
Analysis								
* * VOC SUITE * *								
MTBE	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Benzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Toluene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Ethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
m,p-Xylenes	-	-	< 0.05	-	< 0.05	071S[I]	mg/kg	0.05
o-Xylene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	-	< 25	-	071S	ug/kg	25
Bromomethane	< 25	< 25	-	< 25	-	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	-	< 25	-	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	-	< 50	-	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
MTBE	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Cis-1,2 Dichloroethene	250	< 25	-	< 25	-	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Benzene	< 25	< 25	-	< 25	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_01	WS16_02	WS16_02	WS4_01	WS17_02	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0.4-0.6m	0.7-0.8m	0.4-0.6m	0.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213162	213164	213165	213168	213170			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trichloroethene	310	< 25	-	< 25	-	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Toluene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Chlorobenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
m,p-Xylenes	< 50	< 50	-	< 50	-	071S	ug/kg	50
Bromoform	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Styrene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25

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‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_01	WS16_02	WS16_02	WS4_01	WS17_02	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0.4-0.6m	0.7-0.8m	0.4-0.6m	0.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213162	213164	213165	213168	213170			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
sec-butylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
n-butylbenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	-	< 50	-	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS17_01	HP17_01	HP17_01	WS9_01	WS9_01	Method No	Units	LOD
Sample Depth (m)	0.4-0.5m	0.2-0.35m	0.6-0.7m	0.3-0.4m	1.5-1.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213172	213173	213174	213175	213176			
Analysis								
* * VOC SUITE * *								
MTBE	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Benzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Toluene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Ethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
m,p-Xylenes	-	-	< 0.05	-	< 0.05	071S[I]	mg/kg	0.05
o-Xylene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	-	< 0.025	-	< 0.025	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Vinyl Chloride	28	< 25	-	< 25	-	071S	ug/kg	25
Bromomethane	< 25	< 25	-	< 25	-	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	-	< 25	-	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	-	< 50	-	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
MTBE	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Cis-1,2 Dichloroethene	560	< 25	-	< 25	-	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Benzene	< 25	< 25	-	< 25	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS17_01	HP17_01	HP17_01	WS9_01	WS9_01	Method No	Units	LOD
Sample Depth (m)	0.4-0.5m	0.2-0.35m	0.6-0.7m	0.3-0.4m	1.5-1.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213172	213173	213174	213175	213176			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trichloroethene	400	< 25	-	29	-	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Toluene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Chlorobenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
m,p-Xylenes	< 50	< 50	-	< 50	-	071S	ug/kg	50
Bromoform	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Styrene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	130	< 25	-	< 25	-	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS17_01	HP17_01	HP17_01	WS9_01	WS9_01	Method No	Units	LOD
Sample Depth (m)	0.4-0.5m	0.2-0.35m	0.6-0.7m	0.3-0.4m	1.5-1.6m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213172	213173	213174	213175	213176			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	210	< 25	-	< 25	-	071S	ug/kg	25
sec-butylbenzene	63	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	-	< 25	-	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
n-butylbenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	< 25	-	< 25	-	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	-	< 50	-	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	-	< 25	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP9_01	HP9_02	HP13_01	HP13_01	BH9_01	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0-0.1m	0.7m	0.5m	1.0m			
Date Sampled	09/03/07	09/03/07	09/03/07	09/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213177	213179	213181	213182	213183			
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
Benzene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
Toluene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	< 0.250‡	< 0.05	-	-	071S[I]	mg/kg	0.05
o-Xylene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	< 0.250‡	< 0.025	-	-	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	-	-	-	< 25	< 25	071S	ug/kg	25
Bromomethane	-	-	-	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	-	-	-	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	-	-	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	-	-	-	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	-	-	< 25	< 25	071S	ug/kg	25
MTBE	-	-	-	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	-	-	-	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	-	-	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	-	-	-	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Benzene	-	-	-	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP9_01	HP9_02	HP13_01	HP13_01	BH9_01	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0-0.1m	0.7m	0.5m	1.0m			
Date Sampled	09/03/07	09/03/07	09/03/07	09/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213177	213179	213181	213182	213183			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Toluene	-	-	-	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Dibromochloromethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dibromoethane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Tetrachloroethene	-	-	-	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	-	-	< 25	< 25	071S	ug/kg	25
Chlorobenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Ethyl Benzene	-	-	-	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	-	-	-	< 50	< 50	071S	ug/kg	50
Bromoform	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Styrene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
o-Xylene	-	-	-	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	-	-	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Isopropylbenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
Bromobenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
n-propylbenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
2-Chlorotoluene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
4-Chlorotoluene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	-	-	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25

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[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	HP9_01	HP9_02	HP13_01	HP13_01	BH9_01	Method No	Units	LOD
Sample Depth (m)	0.5-0.6m	0-0.1m	0.7m	0.5m	1.0m			
Date Sampled	09/03/07	09/03/07	09/03/07	09/03/07	08/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213177	213179	213181	213182	213183			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	-	-	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	-	-	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	-	-	-	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	-	-	-	< 25	< 25	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	-	-	< 25	< 25	071S	ug/kg	25
n-butylbenzene	-	-	-	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	-	-	-	< 25	< 25	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	-	-	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	-	-	-	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	-	-	-	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH9_04	BH13_02	BH13_03	BH13_03	BH13_01	Method No	Units	LOD
Sample Depth (m)	2.0-2.5m	1.0-1.5m	0.5m	2.5m	0.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213186	213187	213189	213190	213191			
Analysis								
* * VOC SUITE * *								
MTBE	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
Benzene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
Toluene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
Ethylbenzene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
m,p-Xylenes	-	-	-	< 0.05	-	071S[I]	mg/kg	0.05
o-Xylene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	-	-	< 0.025	-	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	-	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	-	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	-	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
MTBE	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	36	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH9_04	BH13_02	BH13_03	BH13_03	BH13_01	Method No	Units	LOD
Sample Depth (m)	2.0-2.5m	1.0-1.5m	0.5m	2.5m	0.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213186	213187	213189	213190	213191			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Trichloroethene	34	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Toluene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
m,p-Xylenes	< 50	< 50	< 50	-	< 50	071S	ug/kg	50
Bromoform	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Styrene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH9_04	BH13_02	BH13_03	BH13_03	BH13_01	Method No	Units	LOD
Sample Depth (m)	2.0-2.5m	1.0-1.5m	0.5m	2.5m	0.5m			
Date Sampled	08/03/07	08/03/07	08/03/07	08/03/07	09/03/07			
Date Scheduled	09/03/07	09/03/07	09/03/07	09/03/07	09/03/07			
Laboratory Reference No	213186	213187	213189	213190	213191			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
sec-butylbenzene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	< 25	-	< 25	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	-	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	-	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	-	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_01	HP8_01				Method No	Units	LOD
Sample Depth (m)	2.0m	0.3-0.5m						
Date Sampled	09/03/07	09/03/07						
Date Scheduled	09/03/07	09/03/07						
Laboratory Reference No	213192	213194						
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	< 0.025				071S[I]	mg/kg	0.025
Benzene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
Toluene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	< 0.05				071S[I]	mg/kg	0.05
o-Xylene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	< 0.025				071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	-				071S[IM]	ug/kg	25
Chloromethane	-	-				071S[IM]	ug/kg	25
Vinyl Chloride	-	-				071S	ug/kg	25
Bromomethane	-	-				071S[I]	ug/kg	25
Chloroethane	-	-				071S[IM]	ug/kg	25
Trichlorofluoromethane	-	-				071S[IM]	ug/kg	25
1,1-Dichloroethene	-	-				071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	-				071S[I]	ug/kg	25
Dichloromethane	-	-				071S	ug/kg	50
Carbon Disulfide	-	-				071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	-				071S	ug/kg	25
MTBE	-	-				071S	ug/kg	25
1,1 -Dichloroethane	-	-				071S	ug/kg	25
Cis-1,2 Dichloroethene	-	-				071S[IM]	ug/kg	25
Bromochloromethane	-	-				071S[IM]	ug/kg	25
Chloroform	-	-				071S[IM]	ug/kg	25
2,2-Dichloropropane	-	-				071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	-				071S	ug/kg	25
1,2-Dichloroethane	-	-				071S	ug/kg	25
1,1-Dichloropropene	-	-				071S[IM]	ug/kg	25
Benzene	-	-				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_01	HP8_01				Method No	Units	LOD
Sample Depth (m)	2.0m	0.3-0.5m						
Date Sampled	09/03/07	09/03/07						
Date Scheduled	09/03/07	09/03/07						
Laboratory Reference No	213192	213194						
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	-				071S[IM]	ug/kg	25
Dibromomethane	-	-				071S[IM]	ug/kg	25
1,2-Dichloropropane	-	-				071S[IM]	ug/kg	25
Trichloroethene	-	-				071S[IM]	ug/kg	25
Bromodichloromethane	-	-				071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	-				071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	-				071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	-				071S[IM]	ug/kg	25
Toluene	-	-				071S	ug/kg	25
1,3 -Dichloropropane	-	-				071S[IM]	ug/kg	25
Dibromochloromethane	-	-				071S[IM]	ug/kg	25
1,2-Dibromoethane	-	-				071S[IM]	ug/kg	25
Tetrachloroethene	-	-				071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	-				071S	ug/kg	25
Chlorobenzene	-	-				071S[IM]	ug/kg	25
Ethyl Benzene	-	-				071S	ug/kg	25
m,p-Xylenes	-	-				071S	ug/kg	50
Bromoform	-	-				071S[IM]	ug/kg	25
Styrene	-	-				071S[IM]	ug/kg	25
o-Xylene	-	-				071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	-				071S	ug/kg	25
1,2,3-Trichloropropane	-	-				071S[IM]	ug/kg	25
Isopropylbenzene	-	-				071S[IM]	ug/kg	25
Bromobenzene	-	-				071S[IM]	ug/kg	25
n-propylbenzene	-	-				071S[IM]	ug/kg	25
2-Chlorotoluene	-	-				071S[IM]	ug/kg	25
4-Chlorotoluene	-	-				071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	-				071S	ug/kg	25
tert-butylbenzene	-	-				071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-28722
Matrix : Soil
Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	BH13_01	HP8_01				Method No	Units	LOD
Sample Depth (m)	2.0m	0.3-0.5m						
Date Sampled	09/03/07	09/03/07						
Date Scheduled	09/03/07	09/03/07						
Laboratory Reference No	213192	213194						
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	-				071S	ug/kg	25
sec-butylbenzene	-	-				071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	-				071S	ug/kg	25
1,4 Dichlorobenzene	-	-				071S	ug/kg	25
4-Isopropyltoluene	-	-				071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	-				071S	ug/kg	25
n-butylbenzene	-	-				071S	ug/kg	25
1,2,4-Trichlorobenzene	-	-				071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	-				071S	ug/kg	25
Hexachlorobutadiene	-	-				071S	ug/kg	50
1,2,3-Trichlorobenzene	-	-				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes raised detection limit(s) due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
213162	WS16_01	0.5-0.6m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from before C10 to beyond C40.
213163	WS16_01	1.8-1.9m	08/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
213165	WS16_02	0.7-0.8m	08/03/07	The sample chromatogram exhibits two humps of unresolved complex material, the smaller eluting from before C10 to C13, and the larger eluting from C13 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C17.
213166	WS14_01	0-0.2m	08/03/07	The sample chromatogram exhibits two humps of unresolved complex material, the smaller eluting from before C10 to C13, and the larger eluting from C13 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C17.
213167	WS7_01	0.5m	08/03/07	The sample chromatogram exhibits two humps of unresolved complex material, the smaller eluting from before C10 to C12, and the larger eluting from C12 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C17.
213168	WS4_01	0.4-0.6m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
213169	WS4_01	1.3m	08/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
213170	WS17_02	0.6m	08/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
EPH Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
213171	WS17_02	2.5m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.
213174	HP17_01	0.6-0.7m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40.
213176	WS9_01	1.5-1.6m	08/03/07	The sample chromatogram exhibits two overlapping humps of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213177	HP9_01	0.5-0.6m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
213178	HP9_01	1-1.2m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213179	HP9_02	0-0.1m	09/03/07	The sample chromatogram exhibits several overlapping humps of unresolved complex material eluting from C12 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213180	HP9_02	0.7m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
213181	HP13_01	0.7m	09/03/07	The sample chromatogram exhibits two overlapping humps of unresolved complex material eluting from C10 to beyond C40, overlain by a series of n-alkane peaks eluting through the diesel range and several peaks unidentifiable by this analysis, including one very large peak eluting between C28 & C29

ALcontrol Technichem
EPH Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
213182	HP13_01	0.5m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting predominantly through the lubrication oil range, overlain by one very large peak eluting between C27 and C28 which requires qualitative analysis by GC-MS for further identification
213183	BH9_01	1.0m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40, overlain by a series of peaks consistent with a small amount of PAHs.
213184	BH9_01	2.2m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213185	BH9_04	0.8-1.0m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by a series of n-alkane peaks eluting through the diesel range and several peaks unidentifiable by this analysis.
213186	BH9_04	2.0-2.5m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by a series of n-alkane peaks eluting through the diesel range and several peaks unidentifiable by this analysis.
213187	BH13_02	1.0-1.5m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213190	BH13_03	2.5m	08/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
213191	BH13_01	0.5m	09/03/07	The sample chromatogram exhibits three overlapping humps of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.

ALcontrol Technichem
EPH Description

Job Number: 07-28722
Client: Environ UK Ltd
Project Code: 64C11649

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
213192	BH13_01	2.0m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
213193	HP8_01	0.05-0.15m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40.
213194	HP8_01	0.3-0.5m	09/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C16 to beyond C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28722

Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
039S	In-house method	Determination of PCB congeners in soil samples by hexane/acetone extraction followed by GC-MS determination	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
020S	In-house method based on Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of methanol/water based mobile phase extractable phenols in soil samples by HPLC with electrochemical detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
092	In-house method	Determination of organic content and organic carbon in soil samples by combustion analyser	D

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28722

Project Code: 64C11649

Project Name: Alcoa
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
007S	In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of hexavalent chromium in soil samples by water extraction and colorimetric detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

30 March 2007

TEST REPORT

Our Report Number: 07-28888

Your Order Reference: Instructions of 16/03/2007

16 soil samples submitted for analysis on 16/03/2007

Project Name: ALCOA

Project Code: 61-C11647

Laboratory analysis started on 19/03/2007
All laboratory analysis completed by 30 March 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-28888
Client: Environ UK Ltd
Project Code: 61-C11647

Matrix: Soil
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
214168	BH16_01	0.50	14/03/07	Dark grey sandy clay with gravel
214169	BH16_01	1.00	14/03/07	Grey sand with gravel
214170	BH16_01	3.00	14/03/07	Dark grey sand with gravel
214171	BH11_03	1.50-2.50	14/03/07	*Grey gravel
214172	BH11_03	4.00-5.00	14/03/07	Brown clay with gravel
214173	BH5_01	0.50	14/03/07	Dark grey clay with gravel
214174	BH5_01	1.00	14/03/07	Dark grey sand with gravel
214175	BH5_01	4.00	14/03/07	Dark grey sand with gravel
214176	BH5_02	1.00	14/03/07	Dark grey clay with gravel
214177	BH5_02	2.00	14/03/07	Dark grey clay with gravel
214178	BH17_01	0.50	14/03/07	Dark grey sand with gravel
214179	BH17_01	1.00	14/03/07	Dark grey clay with gravel
214180	BH17_01	3.00	14/03/07	Dark grey clay with gravel
214181	BH5_03	0.50	14/03/07	Dark grey sand with gravel
214182	BH5_03	1.50	14/03/07	Dark grey sand with gravel
214183	BH5_03	3.20	14/03/07	Dark grey clay with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH16_01	BH16_01	BH11_03	BH11_03	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	3.00	1.50-2.50	4.00-5.00			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214168	214169	214170	214171	214172			
Analysis								
Moisture Content (Dry Weight)	8.8	7.0	8.5	0.4	24.7		%	0.1
Moisture Content (Wet Weight)	8.1	6.5	7.8	0.4	19.8		%	0.1
Arsenic	-	-	-	5.5	9.8	069S[IM]	mg/kg	3
Barium	-	-	-	95	99	069S[IM]	mg/kg	10
Beryllium	-	-	-	< 0.5	1.2	069S[IM]	mg/kg	0.5
Boron (W/S)	-	-	-	< 0.5	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	-	-	-	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	-	-	-	11	30	069S[IM]	mg/kg	10
Copper	-	-	-	18	17	069S[IM]	mg/kg	5
Lead	-	-	-	15	34	069S[IM]	mg/kg	10
Mercury	-	-	-	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	-	-	-	12	22	069S[IM]	mg/kg	4
Selenium	-	-	-	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	-	-	-	13	33	069S[IM]	mg/kg	3
Zinc	-	-	-	30	84	069S[IM]	mg/kg	10
Organic Carbon	-	-	0.26	-	0.74	092[IM]	%	0.1
pH	7.7	8.3	8.9	8.4	7.5	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	5200	26	210	25	72	070S[IM]	mg/kg	5
Glycols	Sub-con	-	Sub-con	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_01	BH5_01	BH5_01	BH5_02	BH5_02	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	4.00	1.00	2.00			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214173	214174	214175	214176	214177			
Analysis								
Moisture Content (Dry Weight)	8.8	10.4	9.3	4.4	13.5		%	0.1
Moisture Content (Wet Weight)	8.1	9.4	8.5	4.2	11.9		%	0.1
Arsenic	11	7.4	7.0	11	7.8	069S[IM]	mg/kg	3
Barium	74	60	68	36	57	069S[IM]	mg/kg	10
Beryllium	0.8	0.8	0.8	< 0.5	0.7	069S[IM]	mg/kg	0.5
Boron (W/S)	0.6	< 0.5	< 0.5	< 0.5	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	0.8	< 0.5	< 0.5	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	25	33	50	< 10	24	069S[IM]	mg/kg	10
Copper	63	27	23	37	25	069S[IM]	mg/kg	5
Lead	38	23	21	29	29	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	25	24	25	11	20	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	17	16	16	9.5	15	069S[IM]	mg/kg	3
Zinc	200	90	64	77	73	069S[IM]	mg/kg	10
Organic Carbon	-	-	-	-	0.87	092[IM]	%	0.1
pH	8.8	8.7	8.1	8.7	8.5	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	120	40	55	13	070S[IM]	mg/kg	5
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH17_01	BH17_01	BH17_01	BH5_03	BH5_03	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	3.00	0.50	1.50			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214178	214179	214180	214181	214182			
Analysis								
Moisture Content (Dry Weight)	6.2	10.1	25.1	1.8	3.5		%	0.1
Moisture Content (Wet Weight)	5.8	9.2	20.1	1.8	3.4		%	0.1
Arsenic	52	40	17	9.9	-	069S[IM]	mg/kg	3
Barium	140	130	51	34	-	069S[IM]	mg/kg	10
Beryllium	0.8	0.8	0.5	< 0.5	-	069S[IM]	mg/kg	0.5
Boron (W/S)	0.9	0.8	< 0.5	0.5	-	016S[IM]	mg/kg	0.5
Cadmium	1.1	1.1	< 0.5	< 0.5	-	069S[IM]	mg/kg	0.5
Chromium	24	22	23	15	-	069S[IM]	mg/kg	10
Copper	350	300	60	59	-	069S[IM]	mg/kg	5
Lead	230	190	42	19	-	069S[IM]	mg/kg	10
Mercury	< 0.6	< 0.6	< 0.6	< 0.6	-	069S[IM]	mg/kg	0.6
Nickel	30	30	14	17	-	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5	< 2.5	-	069S[IM]	mg/kg	2.5
Vanadium	24	22	32	12	-	069S[IM]	mg/kg	3
Zinc	540	540	84	35	-	069S[IM]	mg/kg	10
Organic Carbon	-	2.9	-	-	-	092[IM]	%	0.1
pH	8.4	7.9	7.2	8.2	8.1	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	200	310	12	6100	-	070S[IM]	mg/kg	5
Glycols	-	-	-	-	-	MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_03					Method No	Units	LOD
Sample Depth (m)	3.20							
Date Sampled	14/03/07							
Date Scheduled	16/03/07							
Laboratory Reference No	214183							
Analysis								
Moisture Content (Dry Weight)	13.8						%	0.1
Moisture Content (Wet Weight)	12.1						%	0.1
Arsenic	9.9					069S[IM]	mg/kg	3
Barium	55					069S[IM]	mg/kg	10
Beryllium	0.7					069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5					016S[IM]	mg/kg	0.5
Cadmium	< 0.5					069S[IM]	mg/kg	0.5
Chromium	15					069S[IM]	mg/kg	10
Copper	33					069S[IM]	mg/kg	5
Lead	28					069S[IM]	mg/kg	10
Mercury	< 0.6					069S[IM]	mg/kg	0.6
Nickel	21					069S[IM]	mg/kg	4
Selenium	< 2.5					069S[IM]	mg/kg	2.5
Vanadium	15					069S[IM]	mg/kg	3
Zinc	72					069S[IM]	mg/kg	10
Organic Carbon	-					092[IM]	%	0.1
pH	7.9					009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	3000					070S[IM]	mg/kg	5
Glycols	-					MISC		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH5_01	BH5_01	BH5_02	BH17_01	Method No	Units	LOD
Sample Depth (m)	1.00	1.00	4.00	1.00	0.50			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214169	214174	214175	214176	214178			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	0.39	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	0.70	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluorene	< 0.1	0.47	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	2.9	0.25	< 0.1	0.18	022S[IM]	mg/kg	0.1
Anthracene	< 0.1	0.96	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	2.5	0.15	< 0.1	0.27	022S[IM]	mg/kg	0.1
Pyrene	< 0.1	1.9	0.13	< 0.1	0.21	022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	0.79	< 0.1	< 0.1	0.13	022S[IM]	mg/kg	0.1
Chrysene	< 0.1	0.78	< 0.1	< 0.1	0.15	022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	0.78	< 0.1	< 0.1	0.14	022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	0.29	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	0.55	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	0.24	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	0.26	< 0.1	< 0.1	< 0.1	022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	9.66	0.40	ND	0.72	022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	13.49	0.54	ND	1.07	022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH17_01	BH5_03				Method No	Units	LOD
Sample Depth (m)	3.00	1.50						
Date Sampled	14/03/07	14/03/07						
Date Scheduled	16/03/07	16/03/07						
Laboratory Reference No	214180	214182						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	0.12				022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	0.18				022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	0.30				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH5_03				Method No	Units	LOD
Sample Depth (m)	0.50	1.50						
Date Sampled	14/03/07	14/03/07						
Date Scheduled	16/03/07	16/03/07						
Laboratory Reference No	214168	214182						
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.03	0.02				CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01	1.2				CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01	2.7				CWGS	mg/kg	0.01
Aliphatic >C12-C16	5.2	3400				CWGS[I]	mg/kg	5
Aliphatic >C16-C21	89	6600				CWGS[I]	mg/kg	5
Aliphatic >C21-C35	3100	1700				CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	3200	12000				CWGS	mg/kg	5
Aromatic C6-C7	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01	< 0.01				CWGS	mg/kg	0.01
Aromatic >C8-C10	0.04	1.8				CWGS	mg/kg	0.01
Aromatic >C10-C12	< 0.01	4.0				CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5	170				CWGS[I]	mg/kg	5
Aromatic >C16-C21	19	530				CWGS[I]	mg/kg	5
Aromatic >C21-C35	650	260				CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	670	960				CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	0.07	9.8				CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	3800	13000				CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	3800	13000				CWGS	mg/kg	5
MTBE	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Benzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Toluene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
m,p-Xylenes	0.015	< 0.010				CWGS[IM]	mg/kg	0.01
o-Xylene	0.015	< 0.010				CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010	< 0.010				CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010	0.043				CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH16_01	BH16_01	BH11_03	BH5_01	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	3.00	1.50-2.50	1.00			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214168	214169	214170	214171	214174			
Analysis								
* * VOC SUITE * *								
MTBE	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
Benzene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
Toluene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
Ethylbenzene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
m,p-Xylenes	-	< 0.05	-	-	-	071S[I]	mg/kg	0.05
o-Xylene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	< 0.025	-	-	-	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Vinyl Chloride	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
Bromomethane	< 25	-	< 25	< 25	< 25	071S[I]	ug/kg	25
Chloroethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	-	< 25	< 25	< 25	071S[I]	ug/kg	25
Dichloromethane	< 50	-	< 50	< 50	< 50	071S	ug/kg	50
Carbon Disulfide	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
MTBE	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,1 -Dichloroethane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromochloromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Chloroform	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dichloroethane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,1-Dichloropropene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Benzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH16_01	BH16_01	BH11_03	BH5_01	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	3.00	1.50-2.50	1.00			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214168	214169	214170	214171	214174			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromomethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trichloroethene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromodichloromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Toluene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,3 -Dichloropropane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Dibromochloromethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Tetrachloroethene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
Chlorobenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Ethyl Benzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
m,p-Xylenes	< 50	-	< 50	< 50	< 50	071S	ug/kg	50
Bromoform	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Styrene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
o-Xylene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,2,3-Trichloropropane	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Isopropylbenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
Bromobenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
n-propylbenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
tert-butylbenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH16_01	BH16_01	BH16_01	BH11_03	BH5_01	Method No	Units	LOD
Sample Depth (m)	0.50	1.00	3.00	1.50-2.50	1.00			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214168	214169	214170	214171	214174			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
sec-butylbenzene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,4 Dichlorobenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
4-Isopropyltoluene	< 25	-	< 25	< 25	< 25	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
n-butylbenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	-	< 25	< 25	< 25	071S	ug/kg	25
Hexachlorobutadiene	< 50	-	< 50	< 50	< 50	071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	-	< 25	< 25	< 25	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_01	BH5_02	BH17_01	BH17_01	BH5_03	Method No	Units	LOD
Sample Depth (m)	4.00	1.00	1.00	3.00	0.50			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214175	214176	214179	214180	214181			
Analysis								
* * VOC SUITE * *								
MTBE	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
Benzene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
Toluene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
Ethylbenzene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.500	< 0.05	-	< 0.05	< 0.05	071S[I]	mg/kg	0.05
o-Xylene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.250	< 0.025	-	< 0.025	< 0.025	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Chloromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Vinyl Chloride	-	-	< 25	-	-	071S	ug/kg	25
Bromomethane	-	-	< 25	-	-	071S[I]	ug/kg	25
Chloroethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Trichlorofluoromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,1-Dichloroethene	-	-	< 25	-	-	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	-	< 25	-	-	071S[I]	ug/kg	25
Dichloromethane	-	-	< 50	-	-	071S	ug/kg	50
Carbon Disulfide	-	-	< 25	-	-	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	-	< 25	-	-	071S	ug/kg	25
MTBE	-	-	< 25	-	-	071S	ug/kg	25
1,1 -Dichloroethane	-	-	< 25	-	-	071S	ug/kg	25
Cis-1,2 Dichloroethene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Bromochloromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Chloroform	-	-	< 25	-	-	071S[IM]	ug/kg	25
2,2-Dichloropropane	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	-	< 25	-	-	071S	ug/kg	25
1,2-Dichloroethane	-	-	< 25	-	-	071S	ug/kg	25
1,1-Dichloropropene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Benzene	-	-	57	-	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_01	BH5_02	BH17_01	BH17_01	BH5_03	Method No	Units	LOD
Sample Depth (m)	4.00	1.00	1.00	3.00	0.50			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214175	214176	214179	214180	214181			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	-	< 25	-	-	071S[IM]	ug/kg	25
Dibromomethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,2-Dichloropropane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Trichloroethene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Bromodichloromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Toluene	-	-	< 25	-	-	071S	ug/kg	25
1,3 -Dichloropropane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Dibromochloromethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,2-Dibromoethane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Tetrachloroethene	-	-	< 25	-	-	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	-	< 25	-	-	071S	ug/kg	25
Chlorobenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Ethyl Benzene	-	-	< 25	-	-	071S	ug/kg	25
m,p-Xylenes	-	-	< 50	-	-	071S	ug/kg	50
Bromoform	-	-	< 25	-	-	071S[IM]	ug/kg	25
Styrene	-	-	< 25	-	-	071S[IM]	ug/kg	25
o-Xylene	-	-	< 25	-	-	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	-	< 25	-	-	071S	ug/kg	25
1,2,3-Trichloropropane	-	-	< 25	-	-	071S[IM]	ug/kg	25
Isopropylbenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25
Bromobenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25
n-propylbenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25
2-Chlorotoluene	-	-	< 25	-	-	071S[IM]	ug/kg	25
4-Chlorotoluene	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	-	< 25	-	-	071S	ug/kg	25
tert-butylbenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_01	BH5_02	BH17_01	BH17_01	BH5_03	Method No	Units	LOD
Sample Depth (m)	4.00	1.00	1.00	3.00	0.50			
Date Sampled	14/03/07	14/03/07	14/03/07	14/03/07	14/03/07			
Date Scheduled	16/03/07	16/03/07	16/03/07	16/03/07	16/03/07			
Laboratory Reference No	214175	214176	214179	214180	214181			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	-	< 25	-	-	071S	ug/kg	25
sec-butylbenzene	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	-	< 25	-	-	071S	ug/kg	25
1,4 Dichlorobenzene	-	-	< 25	-	-	071S	ug/kg	25
4-Isopropyltoluene	-	-	< 25	-	-	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	-	< 25	-	-	071S	ug/kg	25
n-butylbenzene	-	-	< 25	-	-	071S	ug/kg	25
1,2,4-Trichlorobenzene	-	-	< 25	-	-	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	-	< 25	-	-	071S	ug/kg	25
Hexachlorobutadiene	-	-	< 50	-	-	071S	ug/kg	50
1,2,3-Trichlorobenzene	-	-	< 25	-	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_03	BH5_03				Method No	Units	LOD
Sample Depth (m)	1.50	3.20						
Date Sampled	14/03/07	14/03/07						
Date Scheduled	16/03/07	16/03/07						
Laboratory Reference No	214182	214183						
Analysis								
* * VOC SUITE * *								
MTBE	-	< 0.025				071S[I]	mg/kg	0.025
Benzene	-	< 0.025				071S[I]	mg/kg	0.025
Toluene	-	< 0.025				071S[I]	mg/kg	0.025
Ethylbenzene	-	< 0.025				071S[I]	mg/kg	0.025
m,p-Xylenes	-	< 0.05				071S[I]	mg/kg	0.05
o-Xylene	-	< 0.025				071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-	< 0.025				071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-	< 0.025				071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 25	-				071S[IM]	ug/kg	25
Chloromethane	< 25	-				071S[IM]	ug/kg	25
Vinyl Chloride	< 25	-				071S	ug/kg	25
Bromomethane	< 25	-				071S[I]	ug/kg	25
Chloroethane	< 25	-				071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	-				071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	-				071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	-				071S[I]	ug/kg	25
Dichloromethane	< 50	-				071S	ug/kg	50
Carbon Disulfide	< 25	-				071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	-				071S	ug/kg	25
MTBE	< 25	-				071S	ug/kg	25
1,1 -Dichloroethane	< 25	-				071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	-				071S[IM]	ug/kg	25
Bromochloromethane	< 25	-				071S[IM]	ug/kg	25
Chloroform	< 25	-				071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	-				071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	-				071S	ug/kg	25
1,2-Dichloroethane	< 25	-				071S	ug/kg	25
1,1-Dichloropropene	< 25	-				071S[IM]	ug/kg	25
Benzene	< 25	-				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_03	BH5_03				Method No	Units	LOD
Sample Depth (m)	1.50	3.20						
Date Sampled	14/03/07	14/03/07						
Date Scheduled	16/03/07	16/03/07						
Laboratory Reference No	214182	214183						
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 25	-				071S[IM]	ug/kg	25
Dibromomethane	< 25	-				071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	-				071S[IM]	ug/kg	25
Trichloroethene	< 25	-				071S[IM]	ug/kg	25
Bromodichloromethane	< 25	-				071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	-				071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	-				071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	-				071S[IM]	ug/kg	25
Toluene	< 25	-				071S	ug/kg	25
1,3 -Dichloropropane	< 25	-				071S[IM]	ug/kg	25
Dibromochloromethane	< 25	-				071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	-				071S[IM]	ug/kg	25
Tetrachloroethene	< 25	-				071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	-				071S	ug/kg	25
Chlorobenzene	< 25	-				071S[IM]	ug/kg	25
Ethyl Benzene	< 25	-				071S	ug/kg	25
m,p-Xylenes	< 50	-				071S	ug/kg	50
Bromoform	< 25	-				071S[IM]	ug/kg	25
Styrene	< 25	-				071S[IM]	ug/kg	25
o-Xylene	< 25	-				071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	-				071S	ug/kg	25
1,2,3-Trichloropropane	< 25	-				071S[IM]	ug/kg	25
Isopropylbenzene	< 25	-				071S[IM]	ug/kg	25
Bromobenzene	< 25	-				071S[IM]	ug/kg	25
n-propylbenzene	< 25	-				071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	-				071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	-				071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	-				071S	ug/kg	25
tert-butylbenzene	< 25	-				071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-28888
Matrix : Soil
Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_03	BH5_03				Method No	Units	LOD
Sample Depth (m)	1.50	3.20						
Date Sampled	14/03/07	14/03/07						
Date Scheduled	16/03/07	16/03/07						
Laboratory Reference No	214182	214183						
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 25	-				071S	ug/kg	25
sec-butylbenzene	< 25	-				071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	-				071S	ug/kg	25
1,4 Dichlorobenzene	< 25	-				071S	ug/kg	25
4-Isopropyltoluene	< 25	-				071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	-				071S	ug/kg	25
n-butylbenzene	< 25	-				071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	-				071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 25	-				071S	ug/kg	25
Hexachlorobutadiene	< 50	-				071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	-				071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-28888
Client: Environ UK Ltd
Project Code: 61-C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
214168	BH16_01	0.50	14/03/07	The sample chromatogram exhibits a trace primarily consistent with a lubrication oil standard.
214169	BH16_01	1.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40.
214170	BH16_01	3.00	14/03/07	The sample chromatogram exhibits a trace primarily consistent with a lubrication oil standard.
214171	BH11_03	1.50-2.50	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
214172	BH11_03	4.00-5.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
214174	BH5_01	1.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of peaks consistent with a small amount of PAHs.
214175	BH5_01	4.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
214176	BH5_02	1.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of small n-alkane peaks eluting through the diesel range.

ALcontrol Technichem
EPH Description

Job Number: 07-28888
Client: Environ UK Ltd
Project Code: 61-C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
214177	BH5_02	2.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.
214178	BH17_01	0.50	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40.
214179	BH17_01	1.00	14/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40.
214180	BH17_01	3.00	14/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
214181	BH5_03	0.50	14/03/07	The sample chromatogram exhibits several overlapping humps of unresolved complex material eluting from before C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
214183	BH5_03	3.20	14/03/07	The sample chromatogram exhibits several overlapping humps of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-28888

Project Code: 61-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
092	In-house method	Determination of organic content and organic carbon in soil samples by combustion analyser	D
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

10 April 2007

TEST REPORT

Our Report Number: 07-29296

Your Order Reference: Instructions of 26/03/2007

1 product sample and 1 water sample submitted for analysis on 26/03/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 27/03/2007
All laboratory analysis completed by 10 April 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	22/03/07							
Date Scheduled	26/03/07							
Laboratory Reference No	215897							
Analysis								
Arsenic (Dissolved)	0.010					080W[I]	mg/l	0.005
Boron (Dissolved)	0.018					080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001					080W[I]	mg/l	0.001
Chromium (Dissolved)	< 0.005					080W[I]	mg/l	0.005
Chromium (Hexavalent)	< 0.01					007W[I]	mg/l	0.01
Copper (Dissolved)	< 0.005					080W[I]	mg/l	0.005
Lead (Dissolved)	< 0.005					080W[I]	mg/l	0.005
Mercury (Dissolved)	< 0.00005					080W[I]	mg/l	0.00005
Nickel (Dissolved)	< 0.005					080W[I]	mg/l	0.005
Selenium (Dissolved)	< 0.005					080W[I]	mg/l	0.005
Zinc (Dissolved)	< 0.005					080W[I]	mg/l	0.005
pH	7.6					084W[I]	pH Units	

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	22/03/07							
Date Scheduled	26/03/07							
Laboratory Reference No	215897							
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0010‡					022W[I]	mg/l	0.0001
Acenaphthalene	< 0.0010‡					022W[I]	mg/l	0.0001
Acenaphthene	< 0.0010‡					022W[I]	mg/l	0.0001
Fluorene	< 0.0010‡					022W[I]	mg/l	0.0001
Phenanthrene	< 0.0010‡					022W[I]	mg/l	0.0001
Anthracene	< 0.0010‡					022W[I]	mg/l	0.0001
Fluoranthene	< 0.0010‡					022W[I]	mg/l	0.0001
Pyrene	< 0.0010‡					022W[I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0010‡					022W[I]	mg/l	0.0001
Chrysene	< 0.0010‡					022W[I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0010‡					022W[I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0010‡					022W[I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0010‡					022W[I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0010‡					022W[I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0010‡					022W[I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0010‡					022W[I]	mg/l	0.0001
PAH (Sum of Dutch 10)	ND					022W[I]	mg/l	0.0001
PAH (Sum of EPA 16)	ND					022W[I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes detection limit(s) raised due to nature of sample.

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	22/03/07							
Date Scheduled	26/03/07							
Laboratory Reference No	215897							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01					CWGW	mg/l	0.01
Aliphatic >C6-C8	< 0.01					CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aliphatic >C12-C16	0.07					CWGW	mg/l	0.01
Aliphatic >C16-C21	0.55					CWGW	mg/l	0.01
Aliphatic >C21-C35	11					CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	11.69					CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01					CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01					CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aromatic >C12-C16	0.02					CWGW	mg/l	0.01
Aromatic >C16-C21	0.11					CWGW	mg/l	0.01
Aromatic >C21-C35	3.0					CWGW	mg/l	0.01
Total Aromatics (C5-C35)	3.11					CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	< 0.01					CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	14.8					CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	14.8					CWGW	mg/l	0.01
MTBE	< 0.005					CWGW[I]	mg/l	0.005
Benzene	< 0.005					CWGW[I]	mg/l	0.005
Toluene	< 0.005					CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005					CWGW[I]	mg/l	0.005
o-Xylene	< 0.005					CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	22/03/07							
Date Scheduled	26/03/07							
Laboratory Reference No	215897							
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01					040W[I]	mg/l	0.01
Chloroethane	< 0.001					040W[I]	mg/l	0.001
Trichlorofluoromethane	< 0.001					040W[I]	mg/l	0.001
1,1-Dichloroethene	< 0.001					040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025					040W[I]	mg/l	0.025
Dichloromethane	< 0.050					040W[I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001					040W[I]	mg/l	0.001
MTBE	< 0.001					040W[I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001					040W[I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001					040W[I]	mg/l	0.001
Chloroform	< 0.001					040W[I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001					040W[I]	mg/l	0.001
1,2-Dichloroethane	< 0.001					040W[I]	mg/l	0.001
Benzene	< 0.001					040W[I]	mg/l	0.001
Carbon Tetrachloride	< 0.001					040W[I]	mg/l	0.001
Trichloroethene	< 0.001					040W[I]	mg/l	0.001
Bromodichloromethane	< 0.001					040W[I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001					040W[I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001					040W[I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001					040W[I]	mg/l	0.001
Toluene	< 0.001					040W[I]	mg/l	0.001
Dibromochloromethane	< 0.001					040W[I]	mg/l	0.001
Tetrachloroethene	< 0.001					040W[I]	mg/l	0.001
Chlorobenzene	< 0.001					040W[I]	mg/l	0.001
Ethyl Benzene	< 0.001					040W[I]	mg/l	0.001
m,p-Xylenes	< 0.001					040W[I]	mg/l	0.001
Bromoform	< 0.001					040W[I]	mg/l	0.001
o-Xylene	< 0.001					040W[I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001					040W[I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	22/03/07							
Date Scheduled	26/03/07							
Laboratory Reference No	215897							
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001					040W [I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001					040W [I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001					040W [I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001					040W [I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001					040W [I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29296
Matrix : Product
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_03		Method No	Units	LOD
Sample Depth (m)	-				
Date Sampled	22/03/07				
Date Scheduled	26/03/07				
Laboratory Reference No	215898				
Analysis					
Product ID (visual estimate)	< 1		ProdID	%	
Product ID Description	The sample chromatogram exhibits a trace primarily consistent with a lubrication oil standard.		ProdID		

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-29296

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
ProdID	In-house method	Product identification by chromatogram comparison with in-house library standard traces	
CWGW	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in aqueous samples using a combination of headspace GC-FID (C5-C12) and pentane extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
080W	In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996	Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS)	
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	
022W	In-house method	Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection	
007W	In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of hexavalent chromium in aqueous samples by ICP-OES screen	

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

10 April 2007

TEST REPORT

Our Report Number: 07-29310

Your Order Reference: Instructions of 26/03/2007

9 water samples submitted for analysis on 26/03/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 28/03/2007
All laboratory analysis completed by 10 April 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_01	BH11_01	BH11_02	BH11_03	BH5_01	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07	22/03/07			
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07	26/03/07			
Laboratory Reference No	216001	216002	216003	216004	216005			
Analysis								
Arsenic (Dissolved)	< 0.005	< 0.005	-	< 0.005	< 0.005	080W [I]	mg/l	0.005
Boron (Dissolved)	0.036	0.059	-	0.035	0.024	080W [I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001	-	< 0.001	< 0.001	080W [I]	mg/l	0.001
Chromium (Dissolved)	< 0.005	< 0.005	-	< 0.005	< 0.005	080W [I]	mg/l	0.005
Chromium (Hexavalent)	< 0.01	-	-	-	-	007W [I]	mg/l	0.01
Copper (Dissolved)	< 0.005	< 0.005	-	< 0.005	< 0.005	080W [I]	mg/l	0.005
Lead (Dissolved)	< 0.005	< 0.005	-	< 0.005	< 0.005	080W [I]	mg/l	0.005
Mercury (Dissolved)	< 0.00005	< 0.00005	-	< 0.00005	< 0.00005	080W [I]	mg/l	0.00005
Nickel (Dissolved)	0.009	0.006	-	0.008	< 0.005	080W [I]	mg/l	0.005
Selenium (Dissolved)	< 0.005	< 0.005	-	< 0.005	< 0.005	080W [I]	mg/l	0.005
Zinc (Dissolved)	0.007	0.020	-	0.021	< 0.005	080W [I]	mg/l	0.005
pH	6.7	6.7	6.4	6.8	7.4	084W [I]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	0.17	-	0.30	0.09	0.05	072W [I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_02	BH5_03	BH3_02	BH17_01		Method No	Units	LOD
Sample Depth (m)	-	-	-	-				
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07				
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07				
Laboratory Reference No	216006	216007	216008	216009				
Analysis								
Arsenic (Dissolved)	-	< 0.005	< 0.005	0.009		080W[I]	mg/l	0.005
Boron (Dissolved)	-	0.079	0.11	0.046		080W[I]	mg/l	0.005
Cadmium (Dissolved)	-	< 0.001	< 0.001	< 0.001		080W[I]	mg/l	0.001
Chromium (Dissolved)	-	< 0.005	< 0.005	< 0.005		080W[I]	mg/l	0.005
Chromium (Hexavalent)	-	-	-	-		007W[I]	mg/l	0.01
Copper (Dissolved)	-	< 0.005	< 0.005	< 0.005		080W[I]	mg/l	0.005
Lead (Dissolved)	-	< 0.005	< 0.005	< 0.005		080W[I]	mg/l	0.005
Mercury (Dissolved)	-	< 0.00005	< 0.00005	< 0.00005		080W[I]	mg/l	0.00005
Nickel (Dissolved)	-	< 0.005	< 0.005	< 0.005		080W[I]	mg/l	0.005
Selenium (Dissolved)	-	< 0.005	< 0.005	< 0.005		080W[I]	mg/l	0.005
Zinc (Dissolved)	-	0.011	0.011	< 0.005		080W[I]	mg/l	0.005
pH	6.7	7.1	6.9	7.1		084W[I]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	5.0	-	-		072W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH13_01	BH11_01	BH11_02	BH11_03	BH5_01	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07	22/03/07			
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07	26/03/07			
Laboratory Reference No	216001	216002	216003	216004	216005			
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Acenaphthalene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Acenaphthene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Fluorene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Phenanthrene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Anthracene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Fluoranthene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Pyrene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Chrysene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	022W [I]	mg/l	0.0001
PAH (Sum of Dutch 10)	ND	ND	ND	ND	ND	022W [I]	mg/l	0.0001
PAH (Sum of EPA 16)	ND	ND	ND	ND	ND	022W [I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes detection limit(s) raised due to nature of sample.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH5_02	BH5_03	BH3_02	BH17_01		Method No	Units	LOD
Sample Depth (m)	-	-	-	-				
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07				
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07				
Laboratory Reference No	216006	216007	216008	216009				
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Acenaphthalene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Acenaphthene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Fluorene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Phenanthrene	< 0.0001	< 0.0010‡	< 0.0001	0.0001		022W [I]	mg/l	0.0001
Anthracene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Fluoranthene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Pyrene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Chrysene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0010‡	< 0.0001	< 0.0001		022W [I]	mg/l	0.0001
PAH (Sum of Dutch 10)	ND	ND	ND	0.0001		022W [I]	mg/l	0.0001
PAH (Sum of EPA 16)	ND	ND	ND	0.0001		022W [I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ denotes detection limit(s) raised due to nature of sample.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH11_01	BH5_02	BH3_02	BH17_01		Method No	Units	LOD
Sample Depth (m)	-	-	-	-				
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07				
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07				
Laboratory Reference No	216002	216006	216008	216009				
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C6-C8	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C12-C16	1.4	0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C16-C21	1.6	0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aliphatic >C21-C35	0.34	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	3.35	0.02	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C12-C16	0.05	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C16-C21	0.10	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Aromatic >C21-C35	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Total Aromatics (C5-C35)	0.15	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	< 0.01	< 0.01	< 0.01	< 0.01		CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	3.50	0.02	< 0.01	< 0.01		CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	3.50	0.02	< 0.01	< 0.01		CWGW	mg/l	0.01
MTBE	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
Benzene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
Toluene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
o-Xylene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005	< 0.005	< 0.005	< 0.005		CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH11_02	BH11_03	BH5_01	BH5_02	BH5_03	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07	22/03/07			
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07	26/03/07			
Laboratory Reference No	216003	216004	216005	216006	216007			
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	040W [I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	040W [I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	040W [I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
MTBE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001	0.002	< 0.001	< 0.001	040W [I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Chloroform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
Bromoform	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH11_02	BH11_03	BH5_01	BH5_02	BH5_03	Method No	Units	LOD
Sample Depth (m)	-	-	-	-	-			
Date Sampled	22/03/07	22/03/07	22/03/07	22/03/07	22/03/07			
Date Scheduled	26/03/07	26/03/07	26/03/07	26/03/07	26/03/07			
Laboratory Reference No	216003	216004	216005	216006	216007			
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	040W [I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3_02	BH17_01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	22/03/07	22/03/07						
Date Scheduled	26/03/07	26/03/07						
Laboratory Reference No	216008	216009						
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01				040W[I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001				040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025				040W[I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050				040W[I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
MTBE	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	0.004				040W[I]	mg/l	0.001
Chloroform	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Benzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001				040W[I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Toluene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001				040W[I]	mg/l	0.001
Bromoform	< 0.001	< 0.001				040W[I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-29310
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3_02	BH17_01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	22/03/07	22/03/07						
Date Scheduled	26/03/07	26/03/07						
Laboratory Reference No	216008	216009						
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-29310
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Waters
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
216001	BH13_01	-	22/03/07	The sample chromatogram exhibits two overlapping humps of unresolved complex material eluting from C12 to beyond C40.
216003	BH11_02	-	22/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40 overlain by several peaks unidentifiable by this analysis.
216004	BH11_03	-	22/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40 overlain by several peaks unidentifiable by this analysis.
216005	BH5_01	-	22/03/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
216007	BH5_03	-	22/03/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40 overlain by several peaks unidentifiable by this analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-29310

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
CWGW	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in aqueous samples using a combination of headspace GC-FID (C5-C12) and pentane extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
080W	In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996	Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS)	
072W	In-house method	Determination of cyclopentane extractable hydrocarbons in aqueous samples by large volume injection gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	
022W	In-house method	Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection	
007W	In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992	Determination of hexavalent chromium in aqueous samples by ICP-OES screen	

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

04 May 2007

TEST REPORT

Our Report Number: 07-30449

Your Order Reference: Instructions of 18/04/2007

7 soil samples submitted for analysis on 18/04/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 20/04/2007
All laboratory analysis completed by 04 May 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-Ordinator
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Job Number: 07-30449
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soil
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
221849	BH14-01	1.0	16/04/07	Dark brown clay with gravel
221850	BH14-01	3.0	16/04/07	Dark brown clay with gravel
221851	BH14-01	4.0	16/04/07	Dark brown clay with gravel
221852	BH14-01	6.0	16/04/07	Dark brown clay with gravel
221853	BH15-01	0.1	16/04/07	*Grey rubble with plastic
221854	BH15-01	0.5	16/04/07	Dark brown clay with gravel
221855	BH15-01	1.5	16/04/07	Dark brown clay

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH14-01	BH14-01	BH14-01	BH15-01	Method No	Units	LOD
Sample Depth (m)	1.00	3.00	4.00	6.00	0.10			
Date Sampled	16/04/07	16/04/07	16/04/07	16/04/07	16/04/07			
Date Scheduled	18/04/07	18/04/07	18/04/07	18/04/07	18/04/07			
Laboratory Reference No	221849	221850	221851	221852	221853			
Analysis								
Moisture Content (Dry Weight)	11.4	14.1	16.2	14.0	0.6		%	0.1
Moisture Content (Wet Weight)	10.2	12.3	13.9	12.3	0.6		%	0.1
Arsenic	43	43	-	-	-	069S[IM]	mg/kg	3
Barium	87	92	-	-	-	069S[IM]	mg/kg	10
Beryllium	0.8	1.0	-	-	-	069S[IM]	mg/kg	0.5
Boron (W/S)	0.6	< 0.5	-	-	-	016S[IM]	mg/kg	0.5
Cadmium	0.6	< 0.5	-	-	-	069S[IM]	mg/kg	0.5
Chromium	24	30	-	-	-	069S[IM]	mg/kg	10
Copper	110	100	-	-	-	069S[IM]	mg/kg	5
Lead	64	68	-	-	-	069S[IM]	mg/kg	10
Mercury	0.7	0.6	-	-	-	069S[IM]	mg/kg	0.6
Nickel	18	25	-	-	-	069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	-	-	-	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	440	-	-	-	025a[IM]	mg/kg	200
Vanadium	25	25	-	-	-	069S[IM]	mg/kg	3
Zinc	190	170	-	-	-	069S[IM]	mg/kg	10
Organic Carbon	-	-	1.6	-	-	092[IM]	%	0.1
pH	7.1	6.7	-	5.8	6.9	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	63	43	-	10	-	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH15-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	0.50	1.50						
Date Sampled	16/04/07	16/04/07						
Date Scheduled	18/04/07	18/04/07						
Laboratory Reference No	221854	221855						
Analysis								
Moisture Content (Dry Weight)	16.8	35.4					%	0.1
Moisture Content (Wet Weight)	14.4	26.1					%	0.1
Arsenic	72	-				069S[IM]	mg/kg	3
Barium	120	-				069S[IM]	mg/kg	10
Beryllium	0.8	-				069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-				016S[IM]	mg/kg	0.5
Cadmium	0.9	-				069S[IM]	mg/kg	0.5
Chromium	32	-				069S[IM]	mg/kg	10
Copper	120	-				069S[IM]	mg/kg	5
Lead	140	-				069S[IM]	mg/kg	10
Mercury	1.1	-				069S[IM]	mg/kg	0.6
Nickel	14	-				069S[IM]	mg/kg	4
Selenium	< 2.5	-				069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	1500	-				025a[IM]	mg/kg	200
Vanadium	27	-				069S[IM]	mg/kg	3
Zinc	180	-				069S[IM]	mg/kg	10
Organic Carbon	2.6	-				092[IM]	%	0.1
pH	7.9	-				009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	-				070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	1.00	1.50						
Date Sampled	16/04/07	16/04/07						
Date Scheduled	18/04/07	18/04/07						
Laboratory Reference No	221849	221855						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Phenanthrene	0.20	< 0.1				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	0.23	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	0.13	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	0.43	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	0.57	ND				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH15-01					Method No	Units	LOD
Sample Depth (m)	0.10							
Date Sampled	16/04/07							
Date Scheduled	18/04/07							
Laboratory Reference No	221853							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	2.4					CWGS	mg/kg	0.01
Aliphatic >C6-C8	19					CWGS	mg/kg	0.01
Aliphatic >C8-C10	200					CWGS	mg/kg	0.01
Aliphatic >C10-C12	780					CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	< 5					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	19					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	1000					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	340					CWGS	mg/kg	0.01
Aromatic >C10-C12	1200					CWGS	mg/kg	0.01
Aromatic >C12-C16	62					CWGS[I]	mg/kg	5
Aromatic >C16-C21	< 5					CWGS[I]	mg/kg	5
Aromatic >C21-C35	12					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	1600					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	2500					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	93					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	2600					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	0.42					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	13					CWGS[IM]	mg/kg	0.01
o-Xylene	18					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	97					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	390					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	3.00	0.10						
Date Sampled	16/04/07	16/04/07						
Date Scheduled	18/04/07	18/04/07						
Laboratory Reference No	221850	221853						
Analysis								
* * SVOC SUITE * *								
Naphthalene	43000	130000				053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150	< 150				053S[I]	ug/kg	150
Acenaphthylene	< 150	< 150				053S[I]	ug/kg	150
Acenaphthene	< 150	< 150				053S[I]	ug/kg	150
Fluorene	< 150	< 150				053S[I]	ug/kg	150
Phenanthrene	< 150	< 150				053S[I]	ug/kg	150
Anthracene	< 150	< 150				053S[I]	ug/kg	150
Fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Pyrene	< 150	< 150				053S[IM]	ug/kg	150
Benz(a)anthracene	< 150	< 150				053S	ug/kg	150
Chrysene	< 150	< 150				053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150	< 150				053S[I]	ug/kg	150
Benzo(a)pyrene	< 150	< 150				053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150	< 150				053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150	< 150				053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150	< 150				053S[I]	ug/kg	150
Phenol	< 150	< 150				053S[I]	ug/kg	150
2-Chlorophenol	< 150	< 150				053S[IM]	ug/kg	150
2-Methylphenol	< 200	< 200				053S[I]	ug/kg	200
4-Methylphenol	< 200	< 200				053S[IM]	ug/kg	200
2-Nitrophenol	< 300	< 300				053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250	< 250				053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150	< 150				053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150	< 150				053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200	< 200				053S[IM]	ug/kg	200
4-Nitrophenol	< 300	< 300				053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	3.00	0.10						
Date Sampled	16/04/07	16/04/07						
Date Scheduled	18/04/07	18/04/07						
Laboratory Reference No	221850	221853						
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250	< 250				053S	ug/kg	250
Pentachlorophenol	< 250	< 250				053S	ug/kg	250
Dimethyl Phthalate	< 200	< 200				053S[IM]	ug/kg	200
Diethyl Phthalate	< 200	< 200				053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150	< 150				053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150	< 150				053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150	< 150				053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200	< 200				053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150	< 150				053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200	< 200				053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150	< 150				053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200	< 200				053S[I]	ug/kg	200
Nitrobenzene	< 150	< 150				053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200	< 200				053S	ug/kg	200
2,4-Dinitrotoluene	< 200	< 200				053S	ug/kg	200
Azobenzene	< 200	< 200				053S[I]	ug/kg	200
Hexachlorobenzene	< 200	< 200				053S[IM]	ug/kg	200
Hexachloroethane	< 150	< 150				053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200	< 200				053S[I]	ug/kg	200
Isophorone	< 200	< 200				053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150	< 150				053S[I]	ug/kg	150
Hexachlorobutadiene	< 150	< 150				053S[IM]	ug/kg	150
Anthraquinone	< 150	< 150				053S	ug/kg	150
2-nitroaniline	< 250	< 250				053S[I]	ug/kg	250
Aniline	< 150	< 150				053S	ug/kg	150
Di-n-octyl phthalate	< 150	< 150				053S	ug/kg	150
Hexachlorocyclopentadiene	< 300	< 300				053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	3.00	0.10						
Date Sampled	16/04/07	16/04/07						
Date Scheduled	18/04/07	18/04/07						
Laboratory Reference No	221850	221853						
Analysis								
2-Methylnapthalene	710	6700				053S[I]	ug/kg	150
3-nitroaniline	< 200	< 200				053S	ug/kg	200
4-Chloroaniline	< 200	< 200				053S	ug/kg	200
4-nitroaniline	< 250	< 250				053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300	< 300				053S	ug/kg	300
Carbazole	< 100	< 100				053S[I]	ug/kg	100
Dibenzofuran	< 150	< 150				053S[IM]	ug/kg	150
Biphenyl	< 150	< 150				053S	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH14-01	BH15-01	BH15-01		Method No	Units	LOD
Sample Depth (m)	1.00	4.00	0.10	1.50				
Date Sampled	16/04/07	16/04/07	16/04/07	16/04/07				
Date Scheduled	18/04/07	18/04/07	18/04/07	18/04/07				
Laboratory Reference No	221849	221851	221853	221855				
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 25	< 25		071S	ug/kg	25
Bromomethane	< 25	< 25	< 25	< 25		071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 25	< 25		071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 25	< 25		071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 50	< 50		071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 25	< 25		071S	ug/kg	25
MTBE	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 25	< 25		071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH14-01	BH15-01	BH15-01		Method No	Units	LOD
Sample Depth (m)	1.00	4.00	0.10	1.50				
Date Sampled	16/04/07	16/04/07	16/04/07	16/04/07				
Date Scheduled	18/04/07	18/04/07	18/04/07	18/04/07				
Laboratory Reference No	221849	221851	221853	221855				
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 25	< 25		071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Ethyl Benzene	< 25	< 25	64	< 25		071S	ug/kg	25
m,p-Xylenes	< 50	< 50	2800	< 50		071S	ug/kg	50
Bromoform	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Styrene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
o-Xylene	< 25	< 25	3800	< 25		071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
Isopropylbenzene	< 25	< 25	92	< 25		071S[IM]	ug/kg	25
Bromobenzene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
n-propylbenzene	< 25	< 25	640	< 25		071S[IM]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	11000	< 25		071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 25	< 25		071S[IM]	ug/kg	25
1,2,4 Trimethylbenzene	< 25	< 25	53000	< 25		071S	ug/kg	25
sec-butylbenzene	< 25	< 25	450	< 25		071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	470	< 25		071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30449
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH14-01	BH15-01	BH15-01		Method No	Units	LOD
Sample Depth (m)	1.00	4.00	0.10	1.50				
Date Sampled	16/04/07	16/04/07	16/04/07	16/04/07				
Date Scheduled	18/04/07	18/04/07	18/04/07	18/04/07				
Laboratory Reference No	221849	221851	221853	221855				
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 25	< 25		071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 50	< 50		071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 25	< 25		071S	ug/kg	25
VOC TIC's	ND	ND	see TIC page	ND		071S	mg/kg	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-30449 **Project Name: ALCOA**
Matrix : Soil
Project Code: 64-C11647

Sample Reference	BH15-01			Method No	Units	LOD
Sample Depth (m)	0.10					
Date Sampled	16/04/07					
Date Scheduled	18/04/07					
Laboratory Reference No	221853					
Analysis						
* * VOC TICs * *						
Compound	Ret. Time (mins)	Estimated Concentration	Match Quality (%)			
C3 benzene	8.73	0.072	90	071	mg/kg	-
Allybenzene	9.17	0.885	70	071	mg/kg	-
1,4 dimethyl-2-ethyl benzene	9.21	0.5	95	071	mg/kg	-
2-propyltoluene	9.32	0.162	94	071	mg/kg	-
3-ethyl-o-xylene	9.38	0.519	97	071	mg/kg	-
m-cymene	9.42	0.477	94	071	mg/kg	-
p-cymene	9.6	0.103	90	071	mg/kg	-
2,5 dimethyl styrene	9.93	0.245	86	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-30449
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
221849	BH14-01	1.0	16/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40 overlain by a series of n-alkane peaks eluting through the diesel range.
221850	BH14-01	3.0	16/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40 overlain by a series of n-alkane peaks eluting through the diesel range.
221852	BH14-01	6.0	16/04/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-30449

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
071S	In-house method based on EPA624 "Volatile Organic Compounds in Soils/Sludges"	Determination of volatile organic compounds in soil samples by headspace GC-MS	W
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
092	In-house method	Determination of organic content and organic carbon in soil samples by combustion analyser	D
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
025a	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	D

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-30449

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

02 May 2007

TEST REPORT

Our Report Number: 07-30482

Your Order Reference: Instructions of 20/04/2007

6 soil samples submitted for analysis on 20/04/2007

Project Name: Alcoa

Project Code: 64C11647

Laboratory analysis started on 20/04/2007
All laboratory analysis completed by 02 May 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Job Number: 07-30482
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
222007	WS15_01	0.3-0.6	17/04/07	Grey sandy clay with gravel
222008	WS15_02	0.5-0.8	17/04/07	Brown sandy clay with gravel
222009	WS15_02	0.8-1.0	17/04/07	Grey sandy clay with gravel and oil / petroleum
222010	WS16_03	0.1-0.3	17/04/07	Brown sandy clay with brick
222011	WS16_03	0.6-0.8	17/04/07	*Brown gravel
222012	WS16_03	2.0-2.3	17/04/07	Grey sandy clay with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_01	WS15_02	WS15_02	WS16_03	WS16_03	Method No	Units	LOD
Sample Depth (m)	0.3-0.6	0.5-0.8	0.8-1.0	0.1-0.3	0.6-0.8			
Date Sampled	17/04/07	17/04/07	17/04/07	17/04/07	17/04/07			
Date Scheduled	20/04/07	20/04/07	20/04/07	20/04/07	20/04/07			
Laboratory Reference No	222007	222008	222009	222010	222011			
Analysis								
Moisture Content (Wet Weight)	6.6	22.5	10.8	17.0	3.7		%	0.1
Moisture Content (Dry Weight)	7.1	29.0	12.1	20.5	3.9		%	0.1
Arsenic	-	41	-	-	-	069S[IM]	mg/kg	3
Barium	-	77	-	-	-	069S[IM]	mg/kg	10
Beryllium	-	0.8	-	-	-	069S[IM]	mg/kg	0.5
Boron (W/S)	-	1.0	-	-	-	016S[IM]	mg/kg	0.5
Cadmium	-	0.6	-	-	-	069S[IM]	mg/kg	0.5
Chromium	-	39	-	-	-	069S[IM]	mg/kg	10
Copper	-	72	-	-	-	069S[IM]	mg/kg	5
Lead	-	68	-	-	-	069S[IM]	mg/kg	10
Mercury	-	< 0.6	-	-	-	069S[IM]	mg/kg	0.6
Nickel	-	19	-	-	-	069S[IM]	mg/kg	4
Selenium	-	< 2.5	-	-	-	069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-	590	-	-	-	025a[IM]	mg/kg	200
Vanadium	-	35	-	-	-	069S[IM]	mg/kg	3
Zinc	-	120	-	-	-	069S[IM]	mg/kg	10
pH	7.1	6.0	8.9	7.2	7.2	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	91	-	2000	33	120	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS16_03					Method No	Units	LOD
Sample Depth (m)	2.0-2.3							
Date Sampled	17/04/07							
Date Scheduled	20/04/07							
Laboratory Reference No	222012							
Analysis								
Moisture Content (Wet Weight)	7.9						%	0.1
Moisture Content (Dry Weight)	8.6						%	0.1
Arsenic	-					069S[IM]	mg/kg	3
Barium	-					069S[IM]	mg/kg	10
Beryllium	-					069S[IM]	mg/kg	0.5
Boron (W/S)	-					016S[IM]	mg/kg	0.5
Cadmium	-					069S[IM]	mg/kg	0.5
Chromium	-					069S[IM]	mg/kg	10
Copper	-					069S[IM]	mg/kg	5
Lead	-					069S[IM]	mg/kg	10
Mercury	-					069S[IM]	mg/kg	0.6
Nickel	-					069S[IM]	mg/kg	4
Selenium	-					069S[IM]	mg/kg	2.5
Sulphate (Total Acid Soluble) as SO4	-					025a[IM]	mg/kg	200
Vanadium	-					069S[IM]	mg/kg	3
Zinc	-					069S[IM]	mg/kg	10
pH	-					009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	29					070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_02	WS16_03				Method No	Units	LOD
Sample Depth (m)	0.8-1.0	0.6-0.8						
Date Sampled	17/04/07	17/04/07						
Date Scheduled	20/04/07	20/04/07						
Laboratory Reference No	222009	222011						
Analysis								
* * PAH SUITE * *								
Naphthalene	6.0	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	0.11	< 0.1				022S[IM]	mg/kg	0.1
Fluorene	0.52	< 0.1				022S[IM]	mg/kg	0.1
Phenanthrene	0.78	< 0.1				022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	0.12	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	6.79	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	7.54	ND				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_02					Method No	Units	LOD
Sample Depth (m)	0.5-0.8							
Date Sampled	17/04/07							
Date Scheduled	20/04/07							
Laboratory Reference No	222008							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.05					CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.01					CWGS	mg/kg	0.01
Aliphatic >C8-C10	0.17					CWGS	mg/kg	0.01
Aliphatic >C10-C12	0.27					CWGS	mg/kg	0.01
Aliphatic >C12-C16	630					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	2200					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	2100					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	4900					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	0.75					CWGS	mg/kg	0.01
Aromatic >C10-C12	0.40					CWGS	mg/kg	0.01
Aromatic >C12-C16	84					CWGS[I]	mg/kg	5
Aromatic >C16-C21	510					CWGS[I]	mg/kg	5
Aromatic >C21-C35	1100					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	1700					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	1.7					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	6700					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	6700					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	0.018					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	0.47					CWGS[IM]	mg/kg	0.01
o-Xylene	0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	0.036					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_02					Method No	Units	LOD
Sample Depth (m)	0.5-0.8							
Date Sampled	17/04/07							
Date Scheduled	20/04/07							
Laboratory Reference No	222008							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150					053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150					053S[I]	ug/kg	150
Acenaphthylene	< 150					053S[I]	ug/kg	150
Acenaphthene	< 150					053S[I]	ug/kg	150
Fluorene	< 150					053S[I]	ug/kg	150
Phenanthrene	170					053S[I]	ug/kg	150
Anthracene	< 150					053S[I]	ug/kg	150
Fluoranthene	< 150					053S[I]	ug/kg	150
Pyrene	< 150					053S[IM]	ug/kg	150
Benz(a)anthracene	< 150					053S	ug/kg	150
Chrysene	< 150					053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(a)pyrene	< 150					053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150					053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150					053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150					053S[I]	ug/kg	150
Phenol	< 150					053S[I]	ug/kg	150
2-Chlorophenol	< 150					053S[IM]	ug/kg	150
2-Methylphenol	< 200					053S[I]	ug/kg	200
4-Methylphenol	< 200					053S[IM]	ug/kg	200
2-Nitrophenol	< 300					053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250					053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200					053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200					053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150					053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150					053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200					053S[IM]	ug/kg	200
4-Nitrophenol	< 300					053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_02					Method No	Units	LOD
Sample Depth (m)	0.5-0.8							
Date Sampled	17/04/07							
Date Scheduled	20/04/07							
Laboratory Reference No	222008							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250					053S	ug/kg	250
Pentachlorophenol	< 250					053S	ug/kg	250
Dimethyl Phthalate	< 200					053S[IM]	ug/kg	200
Diethyl Phthalate	< 200					053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150					053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150					053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150					053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200					053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150					053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200					053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200					053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150					053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200					053S[I]	ug/kg	200
Nitrobenzene	< 150					053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200					053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200					053S	ug/kg	200
2,4-Dinitrotoluene	< 200					053S	ug/kg	200
Azobenzene	< 200					053S[I]	ug/kg	200
Hexachlorobenzene	< 200					053S[IM]	ug/kg	200
Hexachloroethane	< 150					053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200					053S[I]	ug/kg	200
Isophorone	< 200					053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150					053S[I]	ug/kg	150
Hexachlorobutadiene	< 150					053S[IM]	ug/kg	150
Anthraquinone	< 150					053S	ug/kg	150
Di-n-octyl phthalate	< 150					053S	ug/kg	150
Hexachlorocyclopentadiene	< 300					053S	ug/kg	300
2-Methylnapthalene	340					053S[I]	ug/kg	150
2-nitroaniline	< 250					053S[I]	ug/kg	250

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_02					Method No	Units	LOD
Sample Depth (m)	0.5-0.8							
Date Sampled	17/04/07							
Date Scheduled	20/04/07							
Laboratory Reference No	222008							
Analysis								
3-nitroaniline	< 200					053S	ug/kg	200
4-Chloroaniline	< 200					053S	ug/kg	200
4-nitroaniline	< 250					053S	ug/kg	250
Dibenzofuran	< 150					053S[IM]	ug/kg	150
Aniline	< 150					053S	ug/kg	150
Bis (2-ethylhexyl) phthalate	< 300					053S	ug/kg	300
Carbazole	< 100					053S[I]	ug/kg	100
Biphenyl	< 150					053S	ug/kg	150

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ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_01	WS15_02	WS15_02	WS16_03		Method No	Units	LOD
Sample Depth (m)	0.3-0.6	0.5-0.8	0.8-1.0	0.6-0.8				
Date Sampled	17/04/07	17/04/07	17/04/07	17/04/07				
Date Scheduled	20/04/07	20/04/07	20/04/07	20/04/07				
Laboratory Reference No	222007	222008	222009‡	222011				
Analysis								
* * VOC SUITE * *								
Dichlorodifluoromethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Chloromethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Vinyl Chloride	< 25	< 25	< 250	< 25		071S	ug/kg	25
Bromomethane	< 25	< 25	< 250	< 25		071S[I]	ug/kg	25
Chloroethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Trichlorofluoromethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
1,1-Dichloroethene	< 25	< 25	< 250	< 25		071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 25	< 25	< 250	< 25		071S[I]	ug/kg	25
Dichloromethane	< 50	< 50	< 500	< 50		071S	ug/kg	50
Carbon Disulfide	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 25	< 25	< 250	< 25		071S	ug/kg	25
MTBE	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,1 -Dichloroethane	< 25	< 25	< 250	< 25		071S	ug/kg	25
Cis-1,2 Dichloroethene	< 25	< 25	< 250	26		071S[IM]	ug/kg	25
Bromochloromethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Chloroform	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
2,2-Dichloropropane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,2-Dichloroethane	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,1-Dichloropropene	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Benzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
Carbon Tetrachloride	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Dibromomethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
1,2-Dichloropropane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Trichloroethene	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Bromodichloromethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 25	< 25	< 250	< 25		071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_01	WS15_02	WS15_02	WS16_03		Method No	Units	LOD
Sample Depth (m)	0.3-0.6	0.5-0.8	0.8-1.0	0.6-0.8				
Date Sampled	17/04/07	17/04/07	17/04/07	17/04/07				
Date Scheduled	20/04/07	20/04/07	20/04/07	20/04/07				
Laboratory Reference No	222007	222008	222009‡	222011				
Analysis								
* * VOC SUITE Cont.. * *								
Toluene	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,3 -Dichloropropane	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
Dibromochloromethane	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
1,2-Dibromoethane	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
Tetrachloroethene	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 25	< 25	< 250	< 25		071S	ug/kg	25
Chlorobenzene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
Ethyl Benzene	< 25	33	7200	< 25		071S	ug/kg	25
m,p-Xylenes	< 50	1400	75000	56		071S	ug/kg	50
Bromoform	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
Styrene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
o-Xylene	< 25	< 25	24000	< 25		071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,2,3-Trichloropropane	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
Isopropylbenzene	< 25	< 25	3600	< 25		071S[I,M]	ug/kg	25
Bromobenzene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
n-propylbenzene	< 25	< 25	27000	< 25		071S[I,M]	ug/kg	25
2-Chlorotoluene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
4-Chlorotoluene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
1,3,5 Trimethylbenzene	< 25	< 25	82000	< 25		071S	ug/kg	25
tert-butylbenzene	< 25	< 25	< 250	< 25		071S[I,M]	ug/kg	25
1,2,4 Trimethylbenzene	< 25	75	300000	27		071S	ug/kg	25
sec-butylbenzene	< 25	< 25	4100	< 25		071S[I,M]	ug/kg	25
1,3 Dichlorobenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,4 Dichlorobenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
4-Isopropyltoluene	< 25	< 25	730	< 25		071S[I,M]	ug/kg	25
1,2 Dichlorobenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
n-butylbenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
1,2,4-Trichlorobenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	WS15_01	WS15_02	WS15_02	WS16_03		Method No	Units	LOD
Sample Depth (m)	0.3-0.6	0.5-0.8	0.8-1.0	0.6-0.8				
Date Sampled	17/04/07	17/04/07	17/04/07	17/04/07				
Date Scheduled	20/04/07	20/04/07	20/04/07	20/04/07				
Laboratory Reference No	222007	222008	222009‡	222011				
Analysis								
* * VOC SUITE Cont.. * *								
1,2-Dibromo-3-Chloropropane	< 25	< 25	< 250	< 25		071S	ug/kg	25
Hexachlorobutadiene	< 50	< 50	< 500	< 50		071S	ug/kg	50
1,2,3-Trichlorobenzene	< 25	< 25	< 250	< 25		071S	ug/kg	25
VOC TIC's	see TIC page	see TIC page	see TIC page	-		071S	mg/kg	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa

Sample Reference	WS15_01			Method No	Units	LOD
Sample Depth (m)	0.3-0.6					
Date Sampled	17/04/07					
Date Scheduled	20/04/07					
Laboratory Reference No	222007					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
4-ethyltoluene	8.56	0.004	72	071	mg/kg	-
benzenesulfoamide	10.07	0.179	87	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa

Sample Reference	WS15_02			Method No	Units	LOD
Sample Depth (m)	0.5-0.8					
Date Sampled	17/04/07					
Date Scheduled	20/04/07					
Laboratory Reference No	222008					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
m-ethyltoluene	8.72	0.014	93	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results
VOC TICs

Job Number : 07-30482
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa

Sample Reference	WS15_02			Method No	Units	LOD
Sample Depth (m)	0.8-1.0					
Date Sampled	17/04/07					
Date Scheduled	20/04/07					
Laboratory Reference No	222009‡					
Analysis						
* * VOC TICs * *						
Compound	**Ret. Time (mins)**	**Estimated Concentration**	**Match Quality (%)**			
2-pentanone	6.77	0.011	91	071	mg/kg	-
1-bromo-4flourobenzene	8.37	0.151	95	071	mg/kg	-
2-Octene	8.45	0.014	76	071	mg/kg	-
1-ethyl-3-methylbenzene	8.57	4.025	94	071	mg/kg	-
o-ethyl toluene	8.72	1.417	94	071	mg/kg	-
Allybenzene	9.17	1.31	70	071	mg/kg	-
5-Ethyl-m-xylene	9.21	0.928	90	071	mg/kg	-
m-propyltoluene	9.38	0.766	95	071	mg/kg	-
2-ethyl-1,3 dimethylbenzene	9.42	0.542	94	071	mg/kg	-
prehenitol	9.65	0.317	94	071	mg/kg	-

Note: -Identifications are Tentative relative to Library Matching,

-Concentrations are calculated relative to the closest internal standard and are estimates only.

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-30482
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
222007	WS15_01	0.3-0.6	17/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting predominantly from C16 to beyond C40.
222009	WS15_02	0.8-1.0	17/04/07	The sample chromatogram exhibits a trace primarily consistent with a mixture of petrol and degraded diesel standards.
222010	WS16_03	0.1-0.3	17/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from before C10 to C40.
222011	WS16_03	0.6-0.8	17/04/07	The sample chromatogram exhibits three overlapping humps of unresolved complex material eluting from before C10 to beyond C40, with the first hump overlain by several peaks unidentifiable by this analysis.
222012	WS16_03	2.0-2.3	17/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-30482

Project Name: Alcoa
Client : Environ UK Ltd

Project Code: 64C11647

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
071S	In-house method based on EPA624 "Volatile Organic Compounds in Soils/Sludges"	Determination of volatile organic compounds in soil samples by headspace GC-MS	W
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP OES detection	D
025a	In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990	Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES)	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

30 April 2007

TEST REPORT

Our Report Number: 07-30486

Your Order Reference: Instructions of 20/04/2007

3 soil samples submitted for analysis on 20/04/2007

Project Name: Alcoa Swansea

Project Code: 64C11647

Laboratory analysis started on 20/04/2007
All laboratory analysis completed by 30 April 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-30486
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: Alcoa Swansea

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
222032	BH06_01	0.5	18/04/07	Grey sandy clay with gravel
222033	BH06_02	1.0	18/04/07	Brown sandy clay
222034	BH06_02	5.0	18/04/07	Brown sandy clay

ALcontrol Technichem
Table Of Results

Job Number : 07-30486
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_01	BH06_02	BH06_02			Method No	Units	LOD
Sample Depth (m)	0.5	1.0	5.0					
Date Sampled	18/04/07	18/04/07	18/04/07					
Date Scheduled	20/04/07	20/04/07	20/04/07					
Laboratory Reference No	222032	222033	222034					
Analysis								
Moisture Content (Dry Weight)	11.3	10.2	10.1				%	0.1
Moisture Content (Wet Weight)	10.2	9.2	9.2				%	0.1
Arsenic	-	7.0	-			069S[IM]	mg/kg	3
Barium	-	68	-			069S[IM]	mg/kg	10
Beryllium	-	1.1	-			069S[IM]	mg/kg	0.5
Boron (W/S)	-	< 0.5	-			016S[IM]	mg/kg	0.5
Cadmium	-	< 0.5	-			069S[IM]	mg/kg	0.5
Chromium	-	28	-			069S[IM]	mg/kg	10
Copper	-	23	-			069S[IM]	mg/kg	5
Lead	-	< 10	-			069S[IM]	mg/kg	10
Mercury	-	< 0.6	-			069S[IM]	mg/kg	0.6
Nickel	-	33	-			069S[IM]	mg/kg	4
Selenium	-	< 2.5	-			069S[IM]	mg/kg	2.5
Vanadium	-	17	-			069S[IM]	mg/kg	3
Zinc	-	67	-			069S[IM]	mg/kg	10
pH	7.8	7.5	7.0			009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	930	11	20			070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30486
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_01	BH06_02	BH06_02			Method No	Units	LOD
Sample Depth (m)	0.5	1.0	5.0					
Date Sampled	18/04/07	18/04/07	18/04/07					
Date Scheduled	20/04/07	20/04/07	20/04/07					
Laboratory Reference No	222032	222033	222034					
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND	ND			022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	ND			022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30486
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_01	BH06_02	BH06_02			Method No	Units	LOD
Sample Depth (m)	0.5	1.0	5.0					
Date Sampled	18/04/07	18/04/07	18/04/07					
Date Scheduled	20/04/07	20/04/07	20/04/07					
Laboratory Reference No	222032	222033	222034					
Analysis								
* * VOC SUITE * *								
MTBE	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
Benzene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
Toluene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
Ethylbenzene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.500	-	< 0.500			071S[I]	mg/kg	0.05
o-Xylene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.250	-	< 0.250			071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloromethane	-	< 250	-			071S[IM]	ug/kg	25
Vinyl Chloride	-	< 250	-			071S	ug/kg	25
Bromomethane	-	< 250	-			071S[I]	ug/kg	25
Chloroethane	-	< 250	-			071S[IM]	ug/kg	25
Trichlorofluoromethane	-	< 250	-			071S[IM]	ug/kg	25
1,1-Dichloroethene	-	< 250	-			071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	< 250	-			071S[I]	ug/kg	25
Dichloromethane	-	< 500	-			071S	ug/kg	50
Carbon Disulfide	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	< 250	-			071S	ug/kg	25
MTBE	-	< 250	-			071S	ug/kg	25
1,1 -Dichloroethane	-	< 250	-			071S	ug/kg	25
Cis-1,2 Dichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloroform	-	< 250	-			071S[IM]	ug/kg	25
2,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	< 250	-			071S	ug/kg	25
1,2-Dichloroethane	-	< 250	-			071S	ug/kg	25
1,1-Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Benzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30486
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_01	BH06_02	BH06_02			Method No	Units	LOD
Sample Depth (m)	0.5	1.0	5.0					
Date Sampled	18/04/07	18/04/07	18/04/07					
Date Scheduled	20/04/07	20/04/07	20/04/07					
Laboratory Reference No	222032	222033	222034					
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	< 250	-			071S[IM]	ug/kg	25
Dibromomethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Trichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromodichloromethane	-	< 250	-			071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	< 250	-			071S[IM]	ug/kg	25
Toluene	-	< 250	-			071S	ug/kg	25
1,3 -Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Dibromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dibromoethane	-	< 250	-			071S[IM]	ug/kg	25
Tetrachloroethene	-	< 250	-			071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	< 250	-			071S	ug/kg	25
Chlorobenzene	-	< 250	-			071S[IM]	ug/kg	25
Ethyl Benzene	-	< 250	-			071S	ug/kg	25
m,p-Xylenes	-	< 500	-			071S	ug/kg	50
Bromoform	-	< 250	-			071S[IM]	ug/kg	25
Styrene	-	< 250	-			071S[IM]	ug/kg	25
o-Xylene	-	< 250	-			071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	< 250	-			071S	ug/kg	25
1,2,3-Trichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Isopropylbenzene	-	< 250	-			071S[IM]	ug/kg	25
Bromobenzene	-	< 250	-			071S[IM]	ug/kg	25
n-propylbenzene	-	< 250	-			071S[IM]	ug/kg	25
2-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
4-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
tert-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30486
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_01	BH06_02	BH06_02			Method No	Units	LOD
Sample Depth (m)	0.5	1.0	5.0					
Date Sampled	18/04/07	18/04/07	18/04/07					
Date Scheduled	20/04/07	20/04/07	20/04/07					
Laboratory Reference No	222032	222033	222034					
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
sec-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
1,4 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
4-Isopropyltoluene	-	< 250	-			071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
n-butylbenzene	-	< 250	-			071S	ug/kg	25
1,2,4-Trichlorobenzene	-	< 250	-			071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	< 250	-			071S	ug/kg	25
Hexachlorobutadiene	-	< 500	-			071S	ug/kg	50
1,2,3-Trichlorobenzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
Limits raised due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-30486
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa Swansea

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
222032	BH06_01	0.5	18/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
222033	BH06_02	1.0	18/04/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
222034	BH06_02	5.0	18/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-30486

Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

04 May 2007

TEST REPORT

Our Report Number: 07-30792

Your Order Reference: Instructions of 23/04/2007

5 soil samples submitted for analysis on 23/04/2007

Project Name: Alcoa Swansea

Project Code: 64C11647

Laboratory analysis started on 25/04/2007
All laboratory analysis completed by 04 May 2007

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-Ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-30792
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: Alcoa Swansea

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
223572	BH06_03	0.5	19/04/07	Dark brown clay with gravel
223573	BH06_03	2	19/04/07	Dark brown clay
223574	BH06_03	4	19/04/07	Dark brown clay with gravel
223575	WS4_02	0.2-0.5	19/04/07	Orange / brown clay
223576	WS4_02	2.7-3.0	19/04/07	Dark brown clay with gravel

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03	BH06_03	BH06_03	WS4_02	WS4_02	Method No	Units	LOD
Sample Depth (m)	0.5	2.0	4.0	0.2-0.5	2.7-3.0			
Date Sampled	19/04/07	19/04/07	19/04/07	19/04/07	19/04/07			
Date Scheduled	23/04/07	23/04/07	23/04/07	23/04/07	23/04/07			
Laboratory Reference No	223572	223573	223574	223575	223576			
Analysis								
Moisture Content (Dry Weight)	9.5	13.7	8.9	14.5	11.5		%	0.1
Moisture Content (Wet Weight)	8.6	12.0	8.2	12.6	10.3		%	0.1
Asbestos (Screen)	Absent	-	-	Absent	-	001a		
Arsenic	-	6.0	-	9.2	4.0	069S[IM]	mg/kg	3
Barium	-	79	-	54	69	069S[IM]	mg/kg	10
Beryllium	-	0.9	-	0.9	0.7	069S[IM]	mg/kg	0.5
Boron (W/S)	-	< 0.5	-	0.6	< 0.5	016S[IM]	mg/kg	0.5
Cadmium	-	< 0.5	-	< 0.5	< 0.5	069S[IM]	mg/kg	0.5
Chromium	-	29	-	17	14	069S[IM]	mg/kg	10
Copper	-	23	-	27	28	069S[IM]	mg/kg	5
Lead	-	21	-	38	43	069S[IM]	mg/kg	10
Mercury	-	< 0.6	-	< 0.6	< 0.6	069S[IM]	mg/kg	0.6
Nickel	-	24	-	14	25	069S[IM]	mg/kg	4
Selenium	-	< 2.5	-	< 2.5	< 2.5	069S[IM]	mg/kg	2.5
Vanadium	-	15	-	19	15	069S[IM]	mg/kg	3
Zinc	-	72	-	57	59	069S[IM]	mg/kg	10
pH	7.6	-	7.3	5.3	5.9	009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	550	-	-	< 5	6	070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03	WS4_02	WS4_02			Method No	Units	LOD
Sample Depth (m)	4.0	0.2-0.5	2.7-3.0					
Date Sampled	19/04/07	19/04/07	19/04/07					
Date Scheduled	23/04/07	23/04/07	23/04/07					
Laboratory Reference No	223574	223575	223576					
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND	ND			022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	ND			022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03					Method No	Units	LOD
Sample Depth (m)	4.0							
Date Sampled	19/04/07							
Date Scheduled	23/04/07							
Laboratory Reference No	223574							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C6-C8	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	8.3					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	16					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	24					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aromatic >C10-C12	0.01					CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aromatic >C16-C21	< 5					CWGS[I]	mg/kg	5
Aromatic >C21-C35	7.9					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	7.9					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	0.01					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	32					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	32					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010					CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03					Method No	Units	LOD
Sample Depth (m)	0.5							
Date Sampled	19/04/07							
Date Scheduled	23/04/07							
Laboratory Reference No	223572							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150					053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150					053S[I]	ug/kg	150
Acenaphthylene	< 150					053S[I]	ug/kg	150
Acenaphthene	< 150					053S[I]	ug/kg	150
Fluorene	< 150					053S[I]	ug/kg	150
Phenanthrene	< 150					053S[I]	ug/kg	150
Anthracene	< 150					053S[I]	ug/kg	150
Fluoranthene	< 150					053S[I]	ug/kg	150
Pyrene	< 150					053S[IM]	ug/kg	150
Benz(a)anthracene	< 150					053S	ug/kg	150
Chrysene	< 150					053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(a)pyrene	< 150					053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150					053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150					053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150					053S[I]	ug/kg	150
Phenol	< 150					053S[I]	ug/kg	150
2-Chlorophenol	< 150					053S[IM]	ug/kg	150
2-Methylphenol	< 200					053S[I]	ug/kg	200
4-Methylphenol	< 200					053S[IM]	ug/kg	200
2-Nitrophenol	< 300					053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250					053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200					053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200					053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150					053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150					053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200					053S[IM]	ug/kg	200
4-Nitrophenol	< 300					053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03					Method No	Units	LOD
Sample Depth (m)	0.5							
Date Sampled	19/04/07							
Date Scheduled	23/04/07							
Laboratory Reference No	223572							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250					053S	ug/kg	250
Pentachlorophenol	< 250					053S	ug/kg	250
Dimethyl Phthalate	< 200					053S[IM]	ug/kg	200
Diethyl Phthalate	< 200					053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150					053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150					053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150					053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200					053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150					053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200					053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200					053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150					053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200					053S[I]	ug/kg	200
Nitrobenzene	< 150					053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200					053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200					053S	ug/kg	200
2,4-Dinitrotoluene	< 200					053S	ug/kg	200
Azobenzene	< 200					053S[I]	ug/kg	200
Hexachlorobenzene	< 200					053S[IM]	ug/kg	200
Hexachloroethane	< 150					053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200					053S[I]	ug/kg	200
Isophorone	< 200					053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150					053S[I]	ug/kg	150
Hexachlorobutadiene	< 150					053S[IM]	ug/kg	150
Anthraquinone	< 150					053S	ug/kg	150
Hexachlorocyclopentadiene	< 300					053S	ug/kg	300
Dibenzofuran	< 150					053S[IM]	ug/kg	150
Carbazole	< 100					053S[I]	ug/kg	100
Bis (2-ethylhexyl) phthalate	< 300					053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03					Method No	Units	LOD
Sample Depth (m)	0.5							
Date Sampled	19/04/07							
Date Scheduled	23/04/07							
Laboratory Reference No	223572							
Analysis								
4-nitroaniline	< 250					053S	ug/kg	250
4-Chloroaniline	< 200					053S	ug/kg	200
3-nitroaniline	< 200					053S	ug/kg	200
2-nitroaniline	< 250					053S[I]	ug/kg	250
Aniline	< 150					053S	ug/kg	150
Di-n-octyl phthalate	< 150					053S	ug/kg	150
2-Methylnapthalene	< 150					053S[I]	ug/kg	150
Biphenyl	< 150					053S	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03	BH06_03	WS4_02			Method No	Units	LOD
Sample Depth (m)	0.5	4.0	0.2-0.5					
Date Sampled	19/04/07	19/04/07	19/04/07					
Date Scheduled	23/04/07	23/04/07	23/04/07					
Laboratory Reference No	223572	223574‡	223575					
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
Benzene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
Toluene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	-	< 0.05			071S[I]	mg/kg	0.05
o-Xylene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	-	< 0.025			071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloromethane	-	< 250	-			071S[IM]	ug/kg	25
Vinyl Chloride	-	< 250	-			071S	ug/kg	25
Bromomethane	-	< 250	-			071S[I]	ug/kg	25
Chloroethane	-	< 250	-			071S[IM]	ug/kg	25
Trichlorofluoromethane	-	< 250	-			071S[IM]	ug/kg	25
1,1-Dichloroethene	-	< 250	-			071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	< 250	-			071S[I]	ug/kg	25
Dichloromethane	-	< 500	-			071S	ug/kg	50
Carbon Disulfide	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	< 250	-			071S	ug/kg	25
MTBE	-	< 250	-			071S	ug/kg	25
1,1 -Dichloroethane	-	< 250	-			071S	ug/kg	25
Cis-1,2 Dichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloroform	-	< 250	-			071S[IM]	ug/kg	25
2,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	< 250	-			071S	ug/kg	25
1,2-Dichloroethane	-	< 250	-			071S	ug/kg	25
1,1-Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Benzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03	BH06_03	WS4_02			Method No	Units	LOD
Sample Depth (m)	0.5	4.0	0.2-0.5					
Date Sampled	19/04/07	19/04/07	19/04/07					
Date Scheduled	23/04/07	23/04/07	23/04/07					
Laboratory Reference No	223572	223574‡	223575					
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	< 250	-			071S[IM]	ug/kg	25
Dibromomethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Trichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromodichloromethane	-	< 250	-			071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	< 250	-			071S[IM]	ug/kg	25
Toluene	-	< 250	-			071S	ug/kg	25
1,3 -Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Dibromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dibromoethane	-	< 250	-			071S[IM]	ug/kg	25
Tetrachloroethene	-	< 250	-			071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	< 250	-			071S	ug/kg	25
Chlorobenzene	-	< 250	-			071S[IM]	ug/kg	25
Ethyl Benzene	-	< 250	-			071S	ug/kg	25
m,p-Xylenes	-	< 500	-			071S	ug/kg	50
Bromoform	-	< 250	-			071S[IM]	ug/kg	25
Styrene	-	< 250	-			071S[IM]	ug/kg	25
o-Xylene	-	< 250	-			071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	< 250	-			071S	ug/kg	25
1,2,3-Trichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Isopropylbenzene	-	< 250	-			071S[IM]	ug/kg	25
Bromobenzene	-	< 250	-			071S[IM]	ug/kg	25
n-propylbenzene	-	< 250	-			071S[IM]	ug/kg	25
2-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
4-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
tert-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-30792
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Sample Reference	BH06_03	BH06_03	WS4_02			Method No	Units	LOD
Sample Depth (m)	0.5	4.0	0.2-0.5					
Date Sampled	19/04/07	19/04/07	19/04/07					
Date Scheduled	23/04/07	23/04/07	23/04/07					
Laboratory Reference No	223572	223574‡	223575					
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
sec-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
1,4 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
4-Isopropyltoluene	-	< 250	-			071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
n-butylbenzene	-	< 250	-			071S	ug/kg	25
1,2,4-Trichlorobenzene	-	< 250	-			071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	< 250	-			071S	ug/kg	25
Hexachlorobutadiene	-	< 500	-			071S	ug/kg	50
1,2,3-Trichlorobenzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-30792
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa Swansea

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
223572	BH06_03	0.5	19/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by several peaks unidentifiable by this analysis.
223575	WS4_02	0.2-0.5	19/04/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
223576	WS4_02	2.7-3.0	19/04/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-30792

Project Code: 64C11647

Project Name: Alcoa Swansea
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
001a	In-house method based on HSG 248	Visual screening of soil samples for fibrous material requiring further identification according to method 001 (note for samples > approximately 1kg it may be necessary to sub-sample prior to screening)	

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

11 May 2007

TEST REPORT

Our Report Number: 07-31050

Your Order Reference: Instructions of 27/04/2007

3 soil samples submitted for analysis on 27/04/2007

Project Name: ALCOA

Project Code: 64C11647

Laboratory analysis started on 30/04/2007
All laboratory analysis completed by 11 May 2007

Rhys Ashton
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-31050
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
224977	BH12_01	1.0	25/04/07	*Grey rubble with sand
224978	BH12_01	2.0	25/04/07	*Grey rubble with sand and oil / petroleum
224979	BH12_01	4.5	25/04/07	Grey clay with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01	BH12_01	BH12_01			Method No	Units	LOD
Sample Depth (m)	1.0	2.0	4.5					
Date Sampled	25/04/07	25/04/07	25/04/07					
Date Scheduled	27/04/07	27/04/07	27/04/07					
Laboratory Reference No	224977	224978	224979					
Analysis								
Moisture Content (Wet Weight)	2.7	3.3	12.1				%	0.1
Moisture Content (Dry Weight)	2.7	3.4	13.8				%	0.1
Asbestos (Screen)	Absent	-	-			001a		
Arsenic	11	-	22			069S[IM]	mg/kg	3
Barium	22	-	44			069S[IM]	mg/kg	10
Beryllium	< 0.5	-	1.0			069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-	0.7			016S[IM]	mg/kg	0.5
Cadmium	< 0.5	-	< 0.5			069S[IM]	mg/kg	0.5
Chromium	< 10	-	34			069S[IM]	mg/kg	10
Copper	26	-	8.2			069S[IM]	mg/kg	5
Lead	17	-	19			069S[IM]	mg/kg	10
Mercury	< 0.6	-	< 0.6			069S[IM]	mg/kg	0.6
Nickel	7.3	-	21			069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5			069S[IM]	mg/kg	2.5
Vanadium	6.9	-	60			069S[IM]	mg/kg	3
Zinc	36	-	45			069S[IM]	mg/kg	10
pH	8.3	8.1	8.6			009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	63000	-	5900			070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01	BH12_01				Method No	Units	LOD
Sample Depth (m)	2.0	4.5						
Date Sampled	25/04/07	25/04/07						
Date Scheduled	27/04/07	27/04/07						
Laboratory Reference No	224978	224979						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Acenaphthene	0.69	< 0.1				022S[IM]	mg/kg	0.1
Fluorene	1.2	0.13				022S[IM]	mg/kg	0.1
Phenanthrene	2.2	0.26				022S[IM]	mg/kg	0.1
Anthracene	0.40	< 0.1				022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	2.63	0.26				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	4.48	0.39				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01					Method No	Units	LOD
Sample Depth (m)	2.0							
Date Sampled	25/04/07							
Date Scheduled	27/04/07							
Laboratory Reference No	224978							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.04					CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.08					CWGS	mg/kg	0.01
Aliphatic >C8-C10	0.50					CWGS	mg/kg	0.01
Aliphatic >C10-C12	6.4					CWGS	mg/kg	0.01
Aliphatic >C12-C16	8700					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	8200					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	2300					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	19000					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	0.76					CWGS	mg/kg	0.01
Aromatic >C10-C12	9.7					CWGS	mg/kg	0.01
Aromatic >C12-C16	1300					CWGS[I]	mg/kg	5
Aromatic >C16-C21	2000					CWGS[I]	mg/kg	5
Aromatic >C21-C35	570					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	3900					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	17					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	23000					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	23000					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010					CWGS[IM]	mg/kg	0.01
o-Xylene	0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	0.029					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01	BH12_01	BH12_01			Method No	Units	LOD
Sample Depth (m)	1.0	2.0	4.5					
Date Sampled	25/04/07	25/04/07	25/04/07					
Date Scheduled	27/04/07	27/04/07	27/04/07					
Laboratory Reference No	224977‡	224978‡	224979					
Analysis								
* * VOC SUITE * *								
MTBE	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
Benzene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
Toluene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
Ethylbenzene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.500	-	< 0.05			071S[I]	mg/kg	0.05
o-Xylene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.250	-	< 0.025			071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloromethane	-	< 250	-			071S[IM]	ug/kg	25
Vinyl Chloride	-	< 250	-			071S	ug/kg	25
Bromomethane	-	< 250	-			071S[I]	ug/kg	25
Chloroethane	-	< 250	-			071S[IM]	ug/kg	25
Trichlorofluoromethane	-	< 250	-			071S[IM]	ug/kg	25
1,1-Dichloroethene	-	< 250	-			071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	< 250	-			071S[I]	ug/kg	25
Dichloromethane	-	< 500	-			071S	ug/kg	50
Carbon Disulfide	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	< 250	-			071S	ug/kg	25
MTBE	-	< 250	-			071S	ug/kg	25
1,1 -Dichloroethane	-	< 250	-			071S	ug/kg	25
Cis-1,2 Dichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
Chloroform	-	< 250	-			071S[IM]	ug/kg	25
2,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	< 250	-			071S	ug/kg	25
1,2-Dichloroethane	-	< 250	-			071S	ug/kg	25
1,1-Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Benzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01	BH12_01	BH12_01			Method No	Units	LOD
Sample Depth (m)	1.0	2.0	4.5					
Date Sampled	25/04/07	25/04/07	25/04/07					
Date Scheduled	27/04/07	27/04/07	27/04/07					
Laboratory Reference No	224977‡	224978‡	224979					
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	< 250	-			071S[IM]	ug/kg	25
Dibromomethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Trichloroethene	-	< 250	-			071S[IM]	ug/kg	25
Bromodichloromethane	-	< 250	-			071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	< 250	-			071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	< 250	-			071S[IM]	ug/kg	25
Toluene	-	< 250	-			071S	ug/kg	25
1,3 -Dichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Dibromochloromethane	-	< 250	-			071S[IM]	ug/kg	25
1,2-Dibromoethane	-	< 250	-			071S[IM]	ug/kg	25
Tetrachloroethene	-	< 250	-			071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	< 250	-			071S	ug/kg	25
Chlorobenzene	-	< 250	-			071S[IM]	ug/kg	25
Ethyl Benzene	-	< 250	-			071S	ug/kg	25
m,p-Xylenes	-	< 500	-			071S	ug/kg	50
Bromoform	-	< 250	-			071S[IM]	ug/kg	25
Styrene	-	< 250	-			071S[IM]	ug/kg	25
o-Xylene	-	< 250	-			071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	< 250	-			071S	ug/kg	25
1,2,3-Trichloropropane	-	< 250	-			071S[IM]	ug/kg	25
Isopropylbenzene	-	< 250	-			071S[IM]	ug/kg	25
Bromobenzene	-	< 250	-			071S[IM]	ug/kg	25
n-propylbenzene	-	< 250	-			071S[IM]	ug/kg	25
2-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
4-Chlorotoluene	-	< 250	-			071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
tert-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31050
Matrix : Soil
Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_01	BH12_01	BH12_01			Method No	Units	LOD
Sample Depth (m)	1.0	2.0	4.5					
Date Sampled	25/04/07	25/04/07	25/04/07					
Date Scheduled	27/04/07	27/04/07	27/04/07					
Laboratory Reference No	224977‡	224978‡	224979					
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	< 250	-			071S	ug/kg	25
sec-butylbenzene	-	< 250	-			071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
1,4 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
4-Isopropyltoluene	-	< 250	-			071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	< 250	-			071S	ug/kg	25
n-butylbenzene	-	< 250	-			071S	ug/kg	25
1,2,4-Trichlorobenzene	-	< 250	-			071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	< 250	-			071S	ug/kg	25
Hexachlorobutadiene	-	< 500	-			071S	ug/kg	50
1,2,3-Trichlorobenzene	-	< 250	-			071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-31050
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
224977	BH12_01	1.0	25/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting between C10 and C40, overlain by a several peaks which are unidentifiable by this method.
224979	BH12_01	4.5	25/04/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to C40, overlain by a series of n-alkane peaks and a series of peaks unidentifiable by this analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31050

Project Code: 64C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
001a	In-house method based on HSG 248	Visual screening of soil samples for fibrous material requiring further identification according to method 001 (note for samples > approximately 1kg it may be necessary to sub-sample prior to screening)	

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

18 May 2007

TEST REPORT

Our Report Number: 07-31598

Your Order Reference: Instructions of 08/05/2007

3 soil samples submitted for analysis on 08/05/2007

Project Code: 64C11647

Laboratory analysis started on 09/05/2007
All laboratory analysis completed by 18 May 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-Ordinator
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Matrix: Soil

Job Number: 07-31598
Client: Environ UK Ltd
Project Code: 64C11647

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
227941	BH04_01	2.5m	03/05/07	*Grey gravel with sand
227942	BH04_01	6.0m	03/05/07	Brown sand
227943	BH04_01	7.0m	03/05/07	Grey sandy clay

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01	BH04_01	BH04_01			Method No	Units	LOD
Sample Depth (m)	2.5m	6.0m	7.0m					
Date Sampled	03/05/07	03/05/07	03/05/07					
Date Scheduled	08/05/07	08/05/07	08/05/07					
Laboratory Reference No	227941	227942	227943					
Analysis								
Moisture Content (Dry Weight)	5.7	7.8	17.5				%	0.1
Moisture Content (Wet Weight)	5.4	7.3	14.9				%	0.1
Asbestos (Screen)	Absent	-	-			001a		
Arsenic	73	8.5	9.0			069S[IM]	mg/kg	3
Barium	320	58	60			069S[IM]	mg/kg	10
Beryllium	1.0	0.8	0.9			069S[IM]	mg/kg	0.5
Boron (W/S)	0.9	< 0.5	< 0.5			016S[IM]	mg/kg	0.5
Cadmium	2.6	< 0.5	< 0.5			069S[IM]	mg/kg	0.5
Chromium	70	16	19			069S[IM]	mg/kg	10
Copper	390	22	25			069S[IM]	mg/kg	5
Lead	630	22	24			069S[IM]	mg/kg	10
Mercury	1.0	< 0.6	< 0.6			069S[IM]	mg/kg	0.6
Nickel	140	27	31			069S[IM]	mg/kg	4
Selenium	< 2.5	< 2.5	< 2.5			069S[IM]	mg/kg	2.5
Vanadium	72	14	15			069S[IM]	mg/kg	3
Zinc	770	61	68			069S[IM]	mg/kg	10
pH	11.2	8.2	-			009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	930	-	100			070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01					Method No	Units	LOD
Sample Depth (m)	2.5m							
Date Sampled	03/05/07							
Date Scheduled	08/05/07							
Laboratory Reference No	227941							
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1					022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1					022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1					022S[IM]	mg/kg	0.1
Fluorene	< 0.1					022S[IM]	mg/kg	0.1
Phenanthrene	0.39					022S[IM]	mg/kg	0.1
Anthracene	< 0.1					022S[IM]	mg/kg	0.1
Fluoranthene	0.52					022S[IM]	mg/kg	0.1
Pyrene	0.38					022S[IM]	mg/kg	0.1
Benzo(a)anthracene	0.26					022S[IM]	mg/kg	0.1
Chrysene	0.34					022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	0.26					022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	0.16					022S[IM]	mg/kg	0.1
Benzo(a)pyrene	0.19					022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	0.12					022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1					022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	0.12					022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	2.09					022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	2.74					022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01					Method No	Units	LOD
Sample Depth (m)	6.0m							
Date Sampled	03/05/07							
Date Scheduled	08/05/07							
Laboratory Reference No	227942							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.01					CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.01					CWGS	mg/kg	0.01
Aliphatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C10-C12	< 0.01					CWGS	mg/kg	0.01
Aliphatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	7.5					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	22					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	30					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	< 0.01					CWGS	mg/kg	0.01
Aromatic >C10-C12	< 0.01					CWGS	mg/kg	0.01
Aromatic >C12-C16	< 5					CWGS[I]	mg/kg	5
Aromatic >C16-C21	< 5					CWGS[I]	mg/kg	5
Aromatic >C21-C35	11					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	11					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	0.03					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	40					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	40					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010					CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01					Method No	Units	LOD
Sample Depth (m)	6.0m							
Date Sampled	03/05/07							
Date Scheduled	08/05/07							
Laboratory Reference No	227942							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 150					053S[IM]	ug/kg	150
2-Chloronaphthalene	< 150					053S[I]	ug/kg	150
Acenaphthylene	< 150					053S[I]	ug/kg	150
Acenaphthene	< 150					053S[I]	ug/kg	150
Fluorene	< 150					053S[I]	ug/kg	150
Phenanthrene	< 150					053S[I]	ug/kg	150
Anthracene	< 150					053S[I]	ug/kg	150
Fluoranthene	< 150					053S[I]	ug/kg	150
Pyrene	< 150					053S[IM]	ug/kg	150
Benz(a)anthracene	< 150					053S	ug/kg	150
Chrysene	< 150					053S[I]	ug/kg	150
Benzo(b)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(k)fluoranthene	< 150					053S[I]	ug/kg	150
Benzo(a)pyrene	< 150					053S	ug/kg	150
Dibenzo(a,h)anthracene	< 150					053S[IM]	ug/kg	150
Indeno(1,2,3-cd)pyrene	< 150					053S[I]	ug/kg	150
Benzo(g,h,i)perylene	< 150					053S[I]	ug/kg	150
Phenol	< 150					053S[I]	ug/kg	150
2-Chlorophenol	< 150					053S[IM]	ug/kg	150
2-Methylphenol	< 200					053S[I]	ug/kg	200
4-Methylphenol	< 200					053S[IM]	ug/kg	200
2-Nitrophenol	< 300					053S[I]	ug/kg	300
2,4-Dimethylphenol	< 250					053S[IM]	ug/kg	250
2,4-Dichlorophenol	< 200					053S[IM]	ug/kg	200
2,6-Dichlorophenol	< 200					053S[IM]	ug/kg	200
4-Chloro-3-methyl phenol	< 150					053S[IM]	ug/kg	150
2,4,6-Trichlorophenol	< 150					053S[I]	ug/kg	150
2,4,5-Trichlorophenol	< 200					053S[IM]	ug/kg	200
4-Nitrophenol	< 300					053S	ug/kg	300

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01					Method No	Units	LOD
Sample Depth (m)	6.0m							
Date Sampled	03/05/07							
Date Scheduled	08/05/07							
Laboratory Reference No	227942							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 250					053S	ug/kg	250
Pentachlorophenol	< 250					053S	ug/kg	250
Dimethyl Phthalate	< 200					053S[IM]	ug/kg	200
Diethyl Phthalate	< 200					053S[I]	ug/kg	200
Di-n-butyl phthalate	< 150					053S[I]	ug/kg	150
Butyl benzyl phthalate	< 150					053S[IM]	ug/kg	150
Bis(2-chloroethyl)ether	< 150					053S[IM]	ug/kg	150
Bis(2-chloroisopropyl)ether	< 200					053S[I]	ug/kg	200
4-Chlorophenyl phenyl ether	< 150					053S[I]	ug/kg	150
Bromo phenyl phenyl ether	< 200					053S[IM]	ug/kg	200
1,3-Dichlorobenzene	< 200					053S[IM]	ug/kg	200
1,2-Dichlorobenzene	< 150					053S[IM]	ug/kg	150
1,4-Dichlorobenzene	< 200					053S[I]	ug/kg	200
Nitrobenzene	< 150					053S[IM]	ug/kg	150
1,2,4-Trichlorobenzene	< 200					053S[IM]	ug/kg	200
2,6-Dinitrotoluene	< 200					053S	ug/kg	200
2,4-Dinitrotoluene	< 200					053S	ug/kg	200
Azobenzene	< 200					053S[I]	ug/kg	200
Hexachlorobenzene	< 200					053S[IM]	ug/kg	200
Hexachloroethane	< 150					053S[I]	ug/kg	150
n-Nitro-n-propyl-1-propanamine	< 200					053S[I]	ug/kg	200
Isophorone	< 200					053S[IM]	ug/kg	200
Bis(2-chloroethoxy)methane	< 150					053S[I]	ug/kg	150
Hexachlorobutadiene	< 150					053S[IM]	ug/kg	150
Anthraquinone	< 150					053S	ug/kg	150
Aniline	< 150					053S	ug/kg	150
Di-n-octyl phthalate	< 150					053S	ug/kg	150
Hexachlorocyclopentadiene	< 300					053S	ug/kg	300
2-Methylnapthalene	< 150					053S[I]	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31598
Matrix : Soil
Project Code: 64C11647

Client : Environ UK Ltd

Sample Reference	BH04_01					Method No	Units	LOD
Sample Depth (m)	6.0m							
Date Sampled	03/05/07							
Date Scheduled	08/05/07							
Laboratory Reference No	227942							
Analysis								
2-nitroaniline	< 250					053S[I]	ug/kg	250
3-nitroaniline	< 200					053S	ug/kg	200
4-Chloroaniline	< 200					053S	ug/kg	200
4-nitroaniline	< 250					053S	ug/kg	250
Bis (2-ethylhexyl) phthalate	< 300					053S	ug/kg	300
Carbazole	< 100					053S[I]	ug/kg	100
Dibenzofuran	< 150					053S[IM]	ug/kg	150
Biphenyl	< 150					053S	ug/kg	150

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Matrix: Soils

Job Number: 07-31598
Client: Environ UK Ltd
Project Code: 64C11647

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
227941	BH04_01	2.5m	03/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C22.
227943	BH04_01	7.0m	03/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31598

Client : Environ UK Ltd

Project Code: 64C11647

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
053S	In-house method	Determination of semi-volatile organic compounds in soil samples by dichloromethane extraction and GC-MS detection	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
001a	In-house method based on HSG 248	Visual screening of soil samples for fibrous material requiring further identification according to method 001 (note for samples > approximately 1kg it may be necessary to sub-sample prior to screening)	

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

25 May 2007

TEST REPORT

Our Report Number: 07-31797

Your Order Reference: Instructions of 11/05/2007

2 water samples submitted for analysis on 11/05/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 11/05/2007
All laboratory analysis completed by 25 May 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3-03	BH12-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	10/05/07	10/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228901	228902						
Analysis								
Arsenic (Dissolved)	< 0.005	0.076				080W[I]	mg/l	0.005
Barium (Dissolved)	0.046	0.073				080W[I]	mg/l	0.005
Beryllium (Dissolved)	< 0.001	< 0.001				080W[I]	mg/l	0.001
Boron (Dissolved)	0.14	0.16				080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001				080W[I]	mg/l	0.001
Chromium (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Copper (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Lead (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Mercury (Dissolved)	< 0.00005	< 0.00005				080W[I]	mg/l	0.00005
Nickel (Dissolved)	< 0.005	0.005				080W[I]	mg/l	0.005
Selenium (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Vanadium (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Zinc (Dissolved)	0.014	< 0.005				080W[I]	mg/l	0.005
Ammoniacal Nitrogen as N	2.1	-				057W[I]	mg/l	0.05
Ammoniacal Nitrogen as NH4	2.7	-				057W[I]	mg/l	0.05
pH	7.8	7.2				084W[I]	pH Units	
* * VPH/BTEX SUITE * *								
MTBE	-	< 0.005				068W[I]	mg/l	0.005
Benzene	-	< 0.005				068W[I]	mg/l	0.005
Toluene	-	< 0.005				068W[I]	mg/l	0.005
Ethylbenzene	-	< 0.005				068W[I]	mg/l	0.005
m,p-Xylenes	-	< 0.005				068W[I]	mg/l	0.005
o-Xylene	-	0.008				068W[I]	mg/l	0.005
1,3,5-Trimethylbenzene	-	< 0.005				068W[I]	mg/l	0.005
1,2,4-Trimethylbenzene	-	0.029				068W[I]	mg/l	0.005
VPH Compounds (C5-C10)	-	0.75				068W[I]	mg/l	0.01
VPH Compounds (C10-C12)	-	9.0				068W	mg/l	0.01
VPH Compounds (C5-C12)	-	9.8				068W	mg/l	0.01
* * EPH SUITE * *								
EPH (C10-C20)	-	110				072W	mg/l	0.01
EPH (C20-C30)	-	25				072W	mg/l	0.01
EPH (C30-C40)	-	6.3				072W	mg/l	0.01
EPH (C10-C40)	0.07	140				072W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3-03	BH12-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	10/05/07	10/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228901	228902						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	0.0015				022W[I]	mg/l	0.0001
Acenaphthalene	< 0.0001	0.0013				022W[I]	mg/l	0.0001
Acenaphthene	< 0.0001	0.0033				022W[I]	mg/l	0.0001
Fluorene	< 0.0001	0.017				022W[I]	mg/l	0.0001
Phenanthrene	0.0001	0.025				022W[I]	mg/l	0.0001
Anthracene	< 0.0001	0.0098				022W[I]	mg/l	0.0001
Fluoranthene	< 0.0001	0.0003				022W[I]	mg/l	0.0001
Pyrene	< 0.0001	0.0007				022W[I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	0.0002				022W[I]	mg/l	0.0001
Chrysene	< 0.0001	0.0001				022W[I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	0.0001				022W[I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	0.0001				022W[I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0001				022W[I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0001				022W[I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0001				022W[I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0001				022W[I]	mg/l	0.0001
PAH (Sum of Dutch 10)	0.0002	0.0367				022W[I]	mg/l	0.0001
PAH (Sum of EPA 16)	0.0002	0.0591				022W[I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12-01					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	10/05/07							
Date Scheduled	11/05/07							
Laboratory Reference No	228902							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 20					053W[I]	ug/l	20
2-Chloronaphthalene	< 20					053W[I]	ug/l	20
Acenaphthylene	< 20					053W[I]	ug/l	20
Acenaphthene	< 20					053W[I]	ug/l	20
Fluorene	< 20					053W[I]	ug/l	20
Phenanthrene	< 20					053W[I]	ug/l	20
Anthracene	< 20					053W[I]	ug/l	20
Fluoranthene	< 20					053W[I]	ug/l	20
Pyrene	< 20					053W[I]	ug/l	20
Benz(a)anthracene	< 20					053W[I]	ug/l	20
Chrysene	< 20					053W[I]	ug/l	20
Benzo(b)fluoranthene	< 25					053W	ug/l	25
Benzo(k)fluoranthene	< 20					053W[I]	ug/l	20
Benzo(a)pyrene	< 25					053W[I]	ug/l	25
Dibenzo(a,h)anthracene	< 40					053W[I]	ug/l	40
Indeno(1,2,3-cd)pyrene	< 40					053W[I]	ug/l	40
Benzo(g,h,i)perylene	< 40					053W[I]	ug/l	40
Phenol	30					053W[I]	ug/l	20
2-Chlorophenol	< 20					053W[I]	ug/l	20
2-Methylphenol	< 20					053W[I]	ug/l	20
4-Methylphenol	< 20					053W[I]	ug/l	20
2-Nitrophenol	< 20					053W[I]	ug/l	20
2,4-Dimethylphenol	< 20					053W[I]	ug/l	20
2,4-Dichlorophenol	< 20					053W[I]	ug/l	20
2,6-Dichlorophenol	< 20					053W[I]	ug/l	20
4-Chloro-3-methyl phenol	< 20					053W[I]	ug/l	20
2,4,6-Trichlorophenol	< 20					053W[I]	ug/l	20
2,4,5-Trichlorophenol	< 20					053W[I]	ug/l	20
4-Nitrophenol	< 50					053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12-01					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	10/05/07							
Date Scheduled	11/05/07							
Laboratory Reference No	228902							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 30					053W	ug/l	30
Pentachlorophenol	< 60					053W	ug/l	60
Dimethyl Phthalate	< 20					053W[I]	ug/l	20
Diethyl Phthalate	< 30					053W[I]	ug/l	30
Di-n-butyl phthalate	< 30					053W[I]	ug/l	30
Butyl benzyl phthalate	< 60					053W[I]	ug/l	60
Bis(2-chloroethyl)ether	< 15					053W[I]	ug/l	15
Bis(2-chloroisopropyl)ether	< 10					053W[I]	ug/l	10
4-Chlorophenyl phenyl ether	< 15					053W[I]	ug/l	15
Bromo phenyl phenyl ether	< 30					053W[I]	ug/l	30
1,3-Dichlorobenzene	< 15					053W[I]	ug/l	15
1,2-Dichlorobenzene	< 10					053W[I]	ug/l	10
1,4-Dichlorobenzene	< 10					053W[I]	ug/l	10
Nitrobenzene	< 20					053W[I]	ug/l	20
1,2,4-Trichlorobenzene	< 10					053W[I]	ug/l	10
2,6-Dinitrotoluene	< 30					053W[I]	ug/l	30
2,4-Dinitrotoluene	< 20					053W[I]	ug/l	20
Azobenzene	< 30					053W[I]	ug/l	30
Hexachlorobenzene	< 20					053W[I]	ug/l	20
Hexachloroethane	< 40					053W[I]	ug/l	40
n-Nitro-n-propyl-1-propanamine	< 15					053W[I]	ug/l	15
Isophorone	< 20					053W[I]	ug/l	20
Bis(2-chloroethoxy)methane	< 15					053W[I]	ug/l	15
Hexachlorobutadiene	< 10					053W[I]	ug/l	10
Anthraquinone	< 30					053W	ug/l	30
Hexachlorocyclopentadiene	< 50					053W	ug/l	50
Aniline	< 40					053W	ug/l	40
2-Methylnapthalene	< 50					053W	ug/l	50
4-nitroaniline	< 50					053W	ug/l	50

[I] ISO 17025 accredited.
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ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12-01					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	10/05/07							
Date Scheduled	11/05/07							
Laboratory Reference No	228902							
Analysis								
3-nitroaniline	< 50					053W	ug/l	50
2-nitroaniline	< 50					053W	ug/l	50
4-Chloroaniline	< 50					053W	ug/l	50
Bis (2-ethylhexyl) phthalate	< 50					053W	ug/l	50
Dibenzofuran	< 50					053W	ug/l	50
Carbazole	< 50					053W	ug/l	50
Biphenyl	< 40					053W	ug/l	40

[I] ISO 17025 accredited.
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ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3-03	BH12-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	10/05/07	10/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228901	228902						
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01				040W [I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001				040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025				040W [I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050				040W [I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
MTBE	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chloroform	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Benzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Toluene	< 0.001	0.003				040W [I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Ethyl Benzene	< 0.001	0.004				040W [I]	mg/l	0.001
m,p-Xylenes	< 0.001	0.015				040W [I]	mg/l	0.001
Bromoform	< 0.001	< 0.001				040W [I]	mg/l	0.001
o-Xylene	< 0.001	0.008				040W [I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001				040W	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31797
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH3-03	BH12-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	10/05/07	10/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228901	228902						
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	0.024				040W [I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-31797
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Waters
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
228901	BH3-03	-	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C34, overlain by several peaks unidentifiable by this analysis.
228902	BH12-01	-	10/05/07	The sample chromatogram exhibits a trace primarily consistent with a degraded diesel.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31797

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
080W	In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996	Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS)	
072W	In-house method	Determination of cyclopentane extractable hydrocarbons in aqueous samples by large volume injection gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	
068W	In-house method	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) including BTEX and MTBE compounds by Headspace GC-FID (VPH).	
057W	In-house method based on Method 18.13 "Environmental Assessment Guidance" Version 3, Second Site Property, March 2003	Determination of ammoniacal nitrogen in aqueous samples by ion selective electrode	
053W	In-house method	Determination of semi-volatile organic compounds in aqueous samples by dichloromethane extraction and GC-MS detection	
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	
022W	In-house method	Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection	

Jo Cutler
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SN13 0RR

21 May 2007

TEST REPORT

Our Report Number: 07-31801

Your Order Reference: Instructions of 11/05/2007

3 soil samples and 2 water samples submitted for analysis on 11/05/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 11/05/2007
All laboratory analysis completed by 21 May 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

ALcontrol Technichem
Sample Description

Job Number: 07-31801
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soil
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
228920	BH12_02	1.30-1.50	09/05/07	Brown sandy clay
228921	BH12_02	1.50-2.00	09/05/07	Brown sandy clay
228922	BH12_02	3.0	09/05/07	Brown sand with clay

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Table Of Results

Job Number : 07-31801
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_02	BH12_02	BH12_02			Method No	Units	LOD
Sample Depth (m)	1.30-1.50	1.50-2.00	3.00					
Date Sampled	09/05/07	09/05/07	09/05/07					
Date Scheduled	11/05/07	11/05/07	11/05/07					
Laboratory Reference No	228920	228921	228922					
Analysis								
Moisture Content (Dry Weight)	21.1	20.2	10.1				%	0.1
Moisture Content (Wet Weight)	17.4	16.8	9.2				%	0.1
Arsenic	10	-	10			069S[IM]	mg/kg	3
Barium	68	-	66			069S[IM]	mg/kg	10
Beryllium	0.6	-	0.8			069S[IM]	mg/kg	0.5
Boron (W/S)	< 0.5	-	< 0.5			016S[IM]	mg/kg	0.5
Cadmium	< 0.5	-	1.0			069S[IM]	mg/kg	0.5
Chromium	22	-	38			069S[IM]	mg/kg	10
Copper	45	-	25			069S[IM]	mg/kg	5
Lead	27	-	46			069S[IM]	mg/kg	10
Mercury	< 0.6	-	< 0.6			069S[IM]	mg/kg	0.6
Nickel	16	-	23			069S[IM]	mg/kg	4
Selenium	< 2.5	-	< 2.5			069S[IM]	mg/kg	2.5
Vanadium	25	-	15			069S[IM]	mg/kg	3
Zinc	94	-	73			069S[IM]	mg/kg	10
pH	7.6	-	7.5			009S[IM]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	210	1900	91			070S[IM]	mg/kg	5

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Soil
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH12_02	BH12_02				Method No	Units	LOD
Sample Depth (m)	1.50-2.00	3.00						
Date Sampled	09/05/07	09/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228921	228922						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Fluorene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Anthracene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Pyrene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Chrysene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1				022S[M]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND				022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND				022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-31801
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Soils
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
228920	BH12_02	1.30-1.50	09/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by a series of n-alkane peaks eluting through the diesel range.
228921	BH12_02	1.50-2.00	09/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C10 to beyond C40, overlain by a series of n-alkane peaks eluting through the diesel range.
228922	BH12_02	3.0	09/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH6_02	BH6_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	09/05/07	09/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228918	228919						
Analysis								
Arsenic (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Boron (Dissolved)	0.16	0.056				080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001				080W[I]	mg/l	0.001
Chromium (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Copper (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Lead (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Mercury (Dissolved)	< 0.00005	< 0.00005				080W[I]	mg/l	0.00005
Nickel (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Selenium (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Zinc (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
pH	7.4	7.3				084W[I]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	-	< 0.01				072W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH6_02	BH6_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	09/05/07	09/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228918	228919						
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Acenaphthalene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Acenaphthene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Fluorene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Phenanthrene	0.0001	0.0002				022W [I]	mg/l	0.0001
Anthracene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Fluoranthene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Pyrene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Benzo(a)anthracene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Chrysene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Benzo(b)fluoranthene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Benzo(k)fluoranthene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Benzo(a)pyrene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Indeno(1,2,3-cd)pyrene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Dibenzo(a,h)anthracene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
Benzo(g,h,i)perylene	< 0.0001	< 0.0001				022W [I]	mg/l	0.0001
PAH (Sum of Dutch 10)	0.0001	0.0002				022W [I]	mg/l	0.0001
PAH (Sum of EPA 16)	0.0001	0.0002				022W [I]	mg/l	0.0001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH6_02					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	09/05/07							
Date Scheduled	11/05/07							
Laboratory Reference No	228918							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01					CWGW	mg/l	0.01
Aliphatic >C6-C8	< 0.01					CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aliphatic >C12-C16	< 0.01					CWGW	mg/l	0.01
Aliphatic >C16-C21	< 0.01					CWGW	mg/l	0.01
Aliphatic >C21-C35	< 0.01					CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	< 0.01					CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01					CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01					CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aromatic >C12-C16	< 0.01					CWGW	mg/l	0.01
Aromatic >C16-C21	< 0.01					CWGW	mg/l	0.01
Aromatic >C21-C35	< 0.01					CWGW	mg/l	0.01
Total Aromatics (C5-C35)	< 0.01					CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	< 0.01					CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	< 0.01					CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	< 0.01					CWGW	mg/l	0.01
MTBE	< 0.005					CWGW[I]	mg/l	0.005
Benzene	< 0.005					CWGW[I]	mg/l	0.005
Toluene	< 0.005					CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005					CWGW[I]	mg/l	0.005
o-Xylene	< 0.005					CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH6_02	BH6_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	09/05/07	09/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228918	228919						
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01				040W [I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001				040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025				040W [I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050				040W [I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
MTBE	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chloroform	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Benzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Toluene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001				040W [I]	mg/l	0.001
Bromoform	< 0.001	< 0.001				040W [I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001				040W	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31801
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH6_02	BH6_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	09/05/07	09/05/07						
Date Scheduled	11/05/07	11/05/07						
Laboratory Reference No	228918	228919						
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-31801
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Waters
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
228919	BH6_03	-	09/05/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31801

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
069S	In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986	Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection	D
016S	In-house method	Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection	D
CWGW	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in aqueous samples using a combination of headspace GC-FID (C5-C12) and pentane extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
080W	In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996	Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS)	
072W	In-house method	Determination of cyclopentane extractable hydrocarbons in aqueous samples by large volume injection gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31801

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	
022W	In-house method	Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection	

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

25 May 2007

TEST REPORT

Our Report Number: 07-31964

Your Order Reference: Instructions of 14/05/2007

15 soil samples submitted for analysis on 14/05/2007

Project Name: Alcoa

Project Code: 64C11647

Laboratory analysis started on 16/05/2007
All laboratory analysis completed by 25 May 2007

pp. Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

ALcontrol Technichem
Sample Description

Job Number: 07-31964
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soil
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	Sample Description
229870	SS7_01	0-0.1	10/05/07	Grey & brown sandy clay with gravel
229871	SS7_02	0-0.1	10/05/07	Brown sandy clay with gravel
229872	SS10_01	0-0.1	10/05/07	*Dark grey gravel with sand
229873	SS10_02	0.1-0.2	10/05/07	Dark grey sandy clay with gravel
229874	SS10_03	0-0.1	10/05/07	Dark brown sandy clay with gravel
229875	SS10_04	0-0.1	10/05/07	Brown sandy clay with brick and vegetation
229876	SS10_05	0-0.1	10/05/07	Brown sandy clay with brick and gravel
229877	SS10_06	0-0.1	10/05/07	Brown sandy clay with brick and gravel
229878	SS10_07	0-0.1	10/05/07	*Dark grey gravel with sand
229879	SS10_08	0-0.1	10/05/07	*Dark grey gravel with sand
229880	SS10_09	0.1-0.2	10/05/07	*Dark grey gravel with sand
229881	SS10_10	0.1-0.2	10/05/07	*Dark grey gravel with sand
229882	SS12_01	0-0.1	10/05/07	Brown sandy clay with gravel
229883	SS12_02	0.2	10/05/07	Brown sandy clay with gravel
229884	SS12_03	0.2	10/05/07	Brown sandy clay with gravel

*Denotes outside the scope of MCERTS accreditation since matrix not included in method validation.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS7_01	SS7_02	SS10_01	SS10_02	SS10_03	Method No	Units	LOD
Sample Depth (m)	0-0.1	0-0.1	0-0.1	0.1-0.2	0-0.1			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229870	229871	229872	229873	229874			
Analysis								
Moisture Content (Dry Weight)	6.1	5.9	4.1	4.3	6.3		%	0.1
Moisture Content (Wet Weight)	5.7	5.5	3.9	4.1	5.9		%	0.1
pH	7.9	-	8.1	-	-	009S[IM]	pH Units	
* * VPH/BTEX SUITE * *								
MTBE	-	-	-	-	-	068S[IM]	mg/kg	0.01
Benzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
Toluene	-	-	-	-	-	068S[IM]	mg/kg	0.01
Ethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
m,p-Xylenes	-	-	-	-	-	068S[IM]	mg/kg	0.01
o-Xylene	-	-	-	-	-	068S[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
VPH Compounds (C5-C10)	-	-	-	-	-	068S[IM]	mg/kg	0.01
VPH Compounds (C10-C12)	-	-	-	-	-	068S	mg/kg	0.01
VPH Compounds (C5-C12)	-	-	-	-	-	068S	mg/kg	0.01
* * EPH SUITE * *								
EPH (C10-C20)	-	-	-	-	-	070S	mg/kg	5
EPH (C20-C30)	-	-	-	-	-	070S	mg/kg	5
EPH (C30-C40)	-	-	-	-	-	070S	mg/kg	5
EPH (C10-C40)	32000	500	11000	12000	98	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 52	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 101	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 118	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 138	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 153	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 180	< 0.020‡	< 0.002	< 0.020‡	< 0.020‡	< 0.002	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	ND	ND	ND	ND	ND	039S[I]	mg/kg	0.002

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS10_04	SS10_05	SS10_06	SS10_07	SS10_08	Method No	Units	LOD
Sample Depth (m)	0-0.1	0-0.1	0-0.1	0-0.1	0-0.1			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229875	229876	229877	229878	229879			
Analysis								
Moisture Content (Dry Weight)	29.5	20.0	30.8	5.9	4.9		%	0.1
Moisture Content (Wet Weight)	22.8	16.7	23.5	5.6	4.7		%	0.1
pH	7.9	-	-	8.2	-	009S[IM]	pH Units	
* * VPH/BTEX SUITE * *								
MTBE	-	-	-	-	-	068S[IM]	mg/kg	0.01
Benzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
Toluene	-	-	-	-	-	068S[IM]	mg/kg	0.01
Ethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
m,p-Xylenes	-	-	-	-	-	068S[IM]	mg/kg	0.01
o-Xylene	-	-	-	-	-	068S[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	-	-	-	-	-	068S[IM]	mg/kg	0.01
VPH Compounds (C5-C10)	-	-	-	-	-	068S[IM]	mg/kg	0.01
VPH Compounds (C10-C12)	-	-	-	-	-	068S	mg/kg	0.01
VPH Compounds (C5-C12)	-	-	-	-	-	068S	mg/kg	0.01
* * EPH SUITE * *								
EPH (C10-C20)	-	-	-	-	-	070S	mg/kg	5
EPH (C20-C30)	-	-	-	-	-	070S	mg/kg	5
EPH (C30-C40)	-	-	-	-	-	070S	mg/kg	5
EPH (C10-C40)	23000	2500	53000	1900	520	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	-	< 0.002	-	< 0.002	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 52	-	< 0.002	-	< 0.002	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 101	-	< 0.002	-	< 0.002	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 118	-	< 0.002	-	< 0.002	< 0.002	039S[IM]	mg/kg	0.002
PCB Congener 138	-	< 0.002	-	< 0.002	0.003	039S[IM]	mg/kg	0.002
PCB Congener 153	-	< 0.002	-	< 0.002	0.003	039S[IM]	mg/kg	0.002
PCB Congener 180	-	< 0.002	-	< 0.002	0.002	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	-	ND	-	ND	0.008	039S[I]	mg/kg	0.002

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS10_09	SS10_10	SS12_01	SS12_02	SS12_03	Method No	Units	LOD
Sample Depth (m)	0.1-0.2	0.1-0.2	0-0.1	0.2	0.2			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229880	229881	229882	229883	229884			
Analysis								
Moisture Content (Dry Weight)	2.0	2.7	9.7	12.5	14.9		%	0.1
Moisture Content (Wet Weight)	1.9	2.7	8.9	11.1	13.0		%	0.1
pH	-	-	7.8	-	7.9	009S[IM]	pH Units	
* * VPH/BTEX SUITE * *								
MTBE	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
Benzene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
Toluene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
Ethylbenzene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
m,p-Xylenes	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
o-Xylene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	-	-	-	< 0.01	< 0.01	068S[IM]	mg/kg	0.01
VPH Compounds (C5-C10)	-	-	-	0.24	0.19	068S[IM]	mg/kg	0.01
VPH Compounds (C10-C12)	-	-	-	0.70	0.57	068S	mg/kg	0.01
VPH Compounds (C5-C12)	-	-	-	0.94	0.76	068S	mg/kg	0.01
* * EPH SUITE * *								
EPH (C10-C20)	-	-	-	21000	9800	070S	mg/kg	5
EPH (C20-C30)	-	-	-	12000	5500	070S	mg/kg	5
EPH (C30-C40)	-	-	-	10000	4800	070S	mg/kg	5
EPH (C10-C40)	54	7300	-	43000	20000	070S[IM]	mg/kg	5
* * PCB SUITE * *								
PCB Congener 28	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 52	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 101	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 118	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 138	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 153	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB Congener 180	< 0.002	< 0.020‡	-	-	-	039S[IM]	mg/kg	0.002
PCB's (Sum of ICES Congeners)	ND	ND	-	-	-	039S[I]	mg/kg	0.002

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS12_01	SS12_02	SS12_03			Method No	Units	LOD
Sample Depth (m)	0-0.1	0.2	0.2					
Date Sampled	10/05/07	10/05/07	10/05/07					
Date Scheduled	14/05/07	14/05/07	14/05/07					
Laboratory Reference No	229882	229883	229884					
Analysis								
* * PAH SUITE * *								
Naphthalene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Acenaphthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluorene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Phenanthrene	< 0.1	< 0.1	0.18			022S[IM]	mg/kg	0.1
Anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Fluoranthene	< 0.1	< 0.1	0.21			022S[IM]	mg/kg	0.1
Pyrene	< 0.1	< 0.1	0.22			022S[IM]	mg/kg	0.1
Benzo(a)anthracene	< 0.1	< 0.1	0.10			022S[IM]	mg/kg	0.1
Chrysene	< 0.1	< 0.1	0.14			022S[IM]	mg/kg	0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Dibenzo(a,h)anthracene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
Benzo(g,h,i)perylene	< 0.1	< 0.1	< 0.1			022S[IM]	mg/kg	0.1
PAH (Sum of Dutch 10)	ND	ND	0.63			022S[I]	mg/kg	0.1
PAH (Sum of EPA 16)	ND	ND	0.85			022S[I]	mg/kg	0.1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS12_01					Method No	Units	LOD
Sample Depth (m)	0-0.1							
Date Sampled	10/05/07							
Date Scheduled	14/05/07							
Laboratory Reference No	229882							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	0.40					CWGS	mg/kg	0.01
Aliphatic >C6-C8	0.11					CWGS	mg/kg	0.01
Aliphatic >C8-C10	0.21					CWGS	mg/kg	0.01
Aliphatic >C10-C12	0.18					CWGS	mg/kg	0.01
Aliphatic >C12-C16	2000					CWGS[I]	mg/kg	5
Aliphatic >C16-C21	1200					CWGS[I]	mg/kg	5
Aliphatic >C21-C35	2600					CWGS[I]	mg/kg	5
Total Aliphatics (C5-C35)	5900					CWGS	mg/kg	5
Aromatic C6-C7	< 0.01					CWGS	mg/kg	0.01
Aromatic >C7-C8	< 0.01					CWGS	mg/kg	0.01
Aromatic >C8-C10	0.32					CWGS	mg/kg	0.01
Aromatic >C10-C12	0.26					CWGS	mg/kg	0.01
Aromatic >C12-C16	160					CWGS[I]	mg/kg	5
Aromatic >C16-C21	190					CWGS[I]	mg/kg	5
Aromatic >C21-C35	1300					CWGS[I]	mg/kg	5
Total Aromatics (C5-C35)	1600					CWGS	mg/kg	5
Volatile Hydrocarbons (C5-C12)	1.5					CWGS	mg/kg	0.01
Extractable Hydrocarbons (C12-C35)	7500					CWGS	mg/kg	5
Total Hydrocarbons (C5-C35)	7500					CWGS	mg/kg	5
MTBE	< 0.010					CWGS[IM]	mg/kg	0.01
Benzene	< 0.010					CWGS[IM]	mg/kg	0.01
Toluene	< 0.010					CWGS[IM]	mg/kg	0.01
Ethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
m,p-Xylenes	< 0.010					CWGS[IM]	mg/kg	0.01
o-Xylene	< 0.010					CWGS[IM]	mg/kg	0.01
1,3,5-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01
1,2,4-Trimethylbenzene	< 0.010					CWGS[IM]	mg/kg	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS7_01	SS10_01	SS10_03	SS10_05	SS10_10	Method No	Units	LOD
Sample Depth (m)	0-0.1	0-0.1	0-0.1	0-0.1	0.1-0.2			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229870	229872‡	229874‡	229876	229881‡			
Analysis								
* * VOC SUITE * *								
MTBE	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
Benzene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
Toluene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
Ethylbenzene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
m,p-Xylenes	< 0.05	< 0.500	< 0.500	< 0.05	< 0.500	071S[I]	mg/kg	0.05
o-Xylene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	< 0.025	< 0.250	< 0.250	< 0.025	< 0.250	071S[I]	mg/kg	0.025
Dichlorodifluoromethane	-	-	-	-	-	071S[IM]	ug/kg	25
Chloromethane	-	-	-	-	-	071S[IM]	ug/kg	25
Vinyl Chloride	-	-	-	-	-	071S	ug/kg	25
Bromomethane	-	-	-	-	-	071S[I]	ug/kg	25
Chloroethane	-	-	-	-	-	071S[IM]	ug/kg	25
Trichlorofluoromethane	-	-	-	-	-	071S[IM]	ug/kg	25
1,1-Dichloroethene	-	-	-	-	-	071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	-	-	-	-	-	071S[I]	ug/kg	25
Dichloromethane	-	-	-	-	-	071S	ug/kg	50
Carbon Disulfide	-	-	-	-	-	071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	-	-	-	-	-	071S	ug/kg	25
MTBE	-	-	-	-	-	071S	ug/kg	25
1,1 -Dichloroethane	-	-	-	-	-	071S	ug/kg	25
Cis-1,2 Dichloroethene	-	-	-	-	-	071S[IM]	ug/kg	25
Bromochloromethane	-	-	-	-	-	071S[IM]	ug/kg	25
Chloroform	-	-	-	-	-	071S[IM]	ug/kg	25
2,2-Dichloropropane	-	-	-	-	-	071S[IM]	ug/kg	25
1,1,1-Trichloroethane	-	-	-	-	-	071S	ug/kg	25
1,2-Dichloroethane	-	-	-	-	-	071S	ug/kg	25
1,1-Dichloropropene	-	-	-	-	-	071S[IM]	ug/kg	25
Benzene	-	-	-	-	-	071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS7_01	SS10_01	SS10_03	SS10_05	SS10_10	Method No	Units	LOD
Sample Depth (m)	0-0.1	0-0.1	0-0.1	0-0.1	0.1-0.2			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229870	229872‡	229874‡	229876	229881‡			
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	-	-	-	-	-	071S[IM]	ug/kg	25
Dibromomethane	-	-	-	-	-	071S[IM]	ug/kg	25
1,2-Dichloropropane	-	-	-	-	-	071S[IM]	ug/kg	25
Trichloroethene	-	-	-	-	-	071S[IM]	ug/kg	25
Bromodichloromethane	-	-	-	-	-	071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	-	-	-	-	-	071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	-	-	-	-	-	071S[IM]	ug/kg	25
1,1,2-Trichloroethane	-	-	-	-	-	071S[IM]	ug/kg	25
Toluene	-	-	-	-	-	071S	ug/kg	25
1,3 -Dichloropropane	-	-	-	-	-	071S[IM]	ug/kg	25
Dibromochloromethane	-	-	-	-	-	071S[IM]	ug/kg	25
1,2-Dibromoethane	-	-	-	-	-	071S[IM]	ug/kg	25
Tetrachloroethene	-	-	-	-	-	071S	ug/kg	25
1,1,1,2-Tetrachloroethane	-	-	-	-	-	071S	ug/kg	25
Chlorobenzene	-	-	-	-	-	071S[IM]	ug/kg	25
Ethyl Benzene	-	-	-	-	-	071S	ug/kg	25
m,p-Xylenes	-	-	-	-	-	071S	ug/kg	50
Bromoform	-	-	-	-	-	071S[IM]	ug/kg	25
Styrene	-	-	-	-	-	071S[IM]	ug/kg	25
o-Xylene	-	-	-	-	-	071S	ug/kg	25
1,1,2,2 Tetrachloroethane	-	-	-	-	-	071S	ug/kg	25
1,2,3-Trichloropropane	-	-	-	-	-	071S[IM]	ug/kg	25
Isopropylbenzene	-	-	-	-	-	071S[IM]	ug/kg	25
Bromobenzene	-	-	-	-	-	071S[IM]	ug/kg	25
n-propylbenzene	-	-	-	-	-	071S[IM]	ug/kg	25
2-Chlorotoluene	-	-	-	-	-	071S[IM]	ug/kg	25
4-Chlorotoluene	-	-	-	-	-	071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	-	-	-	-	-	071S	ug/kg	25
tert-butylbenzene	-	-	-	-	-	071S[IM]	ug/kg	25

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ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS7_01	SS10_01	SS10_03	SS10_05	SS10_10	Method No	Units	LOD
Sample Depth (m)	0-0.1	0-0.1	0-0.1	0-0.1	0.1-0.2			
Date Sampled	10/05/07	10/05/07	10/05/07	10/05/07	10/05/07			
Date Scheduled	14/05/07	14/05/07	14/05/07	14/05/07	14/05/07			
Laboratory Reference No	229870	229872‡	229874‡	229876	229881‡			
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	-	-	-	-	-	071S	ug/kg	25
sec-butylbenzene	-	-	-	-	-	071S[IM]	ug/kg	25
1,3 Dichlorobenzene	-	-	-	-	-	071S	ug/kg	25
1,4 Dichlorobenzene	-	-	-	-	-	071S	ug/kg	25
4-Isopropyltoluene	-	-	-	-	-	071S[IM]	ug/kg	25
1,2 Dichlorobenzene	-	-	-	-	-	071S	ug/kg	25
n-butylbenzene	-	-	-	-	-	071S	ug/kg	25
1,2,4-Trichlorobenzene	-	-	-	-	-	071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	-	-	-	-	-	071S	ug/kg	25
Hexachlorobutadiene	-	-	-	-	-	071S	ug/kg	50
1,2,3-Trichlorobenzene	-	-	-	-	-	071S	ug/kg	25

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[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS12_03					Method No	Units	LOD
Sample Depth (m)	0.2							
Date Sampled	10/05/07							
Date Scheduled	14/05/07							
Laboratory Reference No	229884‡							
Analysis								
* * VOC SUITE * *								
MTBE	-					071S[I]	mg/kg	0.025
Benzene	-					071S[I]	mg/kg	0.025
Toluene	-					071S[I]	mg/kg	0.025
Ethylbenzene	-					071S[I]	mg/kg	0.025
m,p-Xylenes	-					071S[I]	mg/kg	0.05
o-Xylene	-					071S[I]	mg/kg	0.025
1,3,5-Trimethylbenzene	-					071S[I]	mg/kg	0.025
1,2,4-Trimethylbenzene	-					071S[I]	mg/kg	0.025
Dichlorodifluoromethane	< 250					071S[IM]	ug/kg	25
Chloromethane	< 250					071S[IM]	ug/kg	25
Vinyl Chloride	< 250					071S	ug/kg	25
Bromomethane	< 250					071S[I]	ug/kg	25
Chloroethane	< 250					071S[IM]	ug/kg	25
Trichlorofluoromethane	< 250					071S[IM]	ug/kg	25
1,1-Dichloroethene	< 250					071S	ug/kg	25
112-Trichloro-122-Trifluoroethane	< 250					071S[I]	ug/kg	25
Dichloromethane	< 500					071S	ug/kg	50
Carbon Disulfide	< 250					071S[IM]	ug/kg	25
Trans-1,2 Dichloroethene	< 250					071S	ug/kg	25
MTBE	< 250					071S	ug/kg	25
1,1 -Dichloroethane	< 250					071S	ug/kg	25
Cis-1,2 Dichloroethene	< 250					071S[IM]	ug/kg	25
Bromochloromethane	< 250					071S[IM]	ug/kg	25
Chloroform	< 250					071S[IM]	ug/kg	25
2,2-Dichloropropane	< 250					071S[IM]	ug/kg	25
1,1,1-Trichloroethane	< 250					071S	ug/kg	25
1,2-Dichloroethane	< 250					071S	ug/kg	25
1,1-Dichloropropene	< 250					071S[IM]	ug/kg	25
Benzene	< 250					071S	ug/kg	25

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[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS12_03					Method No	Units	LOD
Sample Depth (m)	0.2							
Date Sampled	10/05/07							
Date Scheduled	14/05/07							
Laboratory Reference No	229884‡							
Analysis								
* * VOC SUITE Cont.. * *								
Carbon Tetrachloride	< 250					071S[IM]	ug/kg	25
Dibromomethane	< 250					071S[IM]	ug/kg	25
1,2-Dichloropropane	< 250					071S[IM]	ug/kg	25
Trichloroethene	< 250					071S[IM]	ug/kg	25
Bromodichloromethane	< 250					071S[IM]	ug/kg	25
Cis-1,3 Dichloropropene	< 250					071S[IM]	ug/kg	25
Trans-1,3 Dichloropropene	< 250					071S[IM]	ug/kg	25
1,1,2-Trichloroethane	< 250					071S[IM]	ug/kg	25
Toluene	< 250					071S	ug/kg	25
1,3 -Dichloropropane	< 250					071S[IM]	ug/kg	25
Dibromochloromethane	< 250					071S[IM]	ug/kg	25
1,2-Dibromoethane	< 250					071S[IM]	ug/kg	25
Tetrachloroethene	< 250					071S	ug/kg	25
1,1,1,2-Tetrachloroethane	< 250					071S	ug/kg	25
Chlorobenzene	< 250					071S[IM]	ug/kg	25
Ethyl Benzene	< 250					071S	ug/kg	25
m,p-Xylenes	< 500					071S	ug/kg	50
Bromoform	< 250					071S[IM]	ug/kg	25
Styrene	< 250					071S[IM]	ug/kg	25
o-Xylene	< 250					071S	ug/kg	25
1,1,2,2 Tetrachloroethane	< 250					071S	ug/kg	25
1,2,3-Trichloropropane	< 250					071S[IM]	ug/kg	25
Isopropylbenzene	< 250					071S[IM]	ug/kg	25
Bromobenzene	< 250					071S[IM]	ug/kg	25
n-propylbenzene	< 250					071S[IM]	ug/kg	25
2-Chlorotoluene	< 250					071S[IM]	ug/kg	25
4-Chlorotoluene	< 250					071S[IM]	ug/kg	25
1,3,5 Trimethylbenzene	< 250					071S	ug/kg	25
tert-butylbenzene	< 250					071S[IM]	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
Table Of Results

Job Number : 07-31964
Matrix : Soil
Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Sample Reference	SS12_03					Method No	Units	LOD
Sample Depth (m)	0.2							
Date Sampled	10/05/07							
Date Scheduled	14/05/07							
Laboratory Reference No	229884‡							
Analysis								
* * VOC SUITE Cont.. * *								
1,2,4 Trimethylbenzene	< 250					071S	ug/kg	25
sec-butylbenzene	< 250					071S[IM]	ug/kg	25
1,3 Dichlorobenzene	< 250					071S	ug/kg	25
1,4 Dichlorobenzene	< 250					071S	ug/kg	25
4-Isopropyltoluene	< 250					071S[IM]	ug/kg	25
1,2 Dichlorobenzene	< 250					071S	ug/kg	25
n-butylbenzene	< 250					071S	ug/kg	25
1,2,4-Trichlorobenzene	< 250					071S	ug/kg	25
1,2-Dibromo-3-Chloropropane	< 250					071S	ug/kg	25
Hexachlorobutadiene	< 500					071S	ug/kg	50
1,2,3-Trichlorobenzene	< 250					071S	ug/kg	25

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡ Limits raised due to matrix interference.

ALcontrol Technichem
EPH Description

Job Number: 07-31964
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
229870	SS7_01	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C13 to C40.
229871	SS7_02	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of n-alkane peaks eluting from C13 to C18.
229872	SS10_01	0-0.1	10/05/07	The sample chromatogram exhibits a trace primarily consistent with a transformer oil standard.
229873	SS10_02	0.1-0.2	10/05/07	The sample chromatogram exhibits a trace primarily consistent with a transformer oil standard.
229874	SS10_03	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to C40, overlain by a series of n-alkane peaks eluting from C12 to C17.
229875	SS10_04	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by several peaks unidentifiable by this analysis.
229876	SS10_05	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C18 and several peaks unidentifiable by this analysis.
229877	SS10_06	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of very large peaks consistent with n-alkanes eluting from C14 to C18, and several peaks unidentifiable by this analysis.

ALcontrol Technichem
EPH Description

Job Number: 07-31964
Client: Environ UK Ltd
Project Code: 64C11647

Matrix: Soils
Project Name: Alcoa

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
229878	SS10_07	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C18.
229879	SS10_08	0-0.1	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
229880	SS10_09	0.1-0.2	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C14 to beyond C40, overlain by a series of n-alkane peaks eluting from C14 to C18.
229881	SS10_10	0.1-0.2	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40.
229883	SS12_02	0.2	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of very large peaks consistent with n-alkanes eluting from C14 to C18.
229884	SS12_03	0.2	10/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from C12 to beyond C40, overlain by a series of very large peaks consistent with n-alkanes eluting from C14 to C18.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-31964

Project Code: 64C11647

Project Name: Alcoa
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
068S	In-house method	Determination of Total Gasoline Range Organics Hydrocarbons (GRO) including BTEX and MTBE compounds by Headspace GC-FID (VPH).	W
039S	In-house method	Determination of PCB congeners in soil samples by hexane/acetone extraction followed by GC-MS determination	W
022S	In-house method	Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection	W
009S	In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003	Determination of pH by addition of water followed by electrometric measurement	W
CWGS	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	W
071S	In-house method	Determination of volatile organic compounds in soil samples by headspace GC-MS analysis	W
070S	In-house method	Determination of hexane/acetone extractable hydrocarbons in soil by gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	W

Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

24 May 2007

TEST REPORT

Our Report Number: 07-32100

Your Order Reference: Instructions of 15/05/2007

2 water samples submitted for analysis on 15/05/2007

Project Name: ALCOA

Project Code: 64-C11647

Laboratory analysis started on 18/05/2007
All laboratory analysis completed by 24 May 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rhys Ashton
Project Co-Ordinator
ALCONTROL TECHNICHEM

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
Arsenic (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Boron (Dissolved)	0.029	0.040				080W[I]	mg/l	0.005
Cadmium (Dissolved)	< 0.001	< 0.001				080W[I]	mg/l	0.001
Chromium (Dissolved)	0.006	0.011				080W[I]	mg/l	0.005
Copper (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Lead (Dissolved)	< 0.005	< 0.005				080W[I]	mg/l	0.005
Mercury (Dissolved)	< 0.00005	< 0.00005				080W[I]	mg/l	0.00005
Nickel (Dissolved)	0.013	0.007				080W[I]	mg/l	0.005
Selenium (Dissolved)	0.038	0.021				080W[I]	mg/l	0.005
Zinc (Dissolved)	0.007	0.008				080W[I]	mg/l	0.005
pH	6.6	6.7				084W[I]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	0.02	0.04				072W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 20	< 20				053W[I]	ug/l	20
2-Chloronaphthalene	< 20	< 20				053W[I]	ug/l	20
Acenaphthylene	< 20	< 20				053W[I]	ug/l	20
Acenaphthene	< 20	< 20				053W[I]	ug/l	20
Fluorene	< 20	< 20				053W[I]	ug/l	20
Phenanthrene	< 20	< 20				053W[I]	ug/l	20
Anthracene	< 20	< 20				053W[I]	ug/l	20
Fluoranthene	< 20	< 20				053W[I]	ug/l	20
Pyrene	< 20	< 20				053W[I]	ug/l	20
Benz(a)anthracene	< 20	< 20				053W[I]	ug/l	20
Chrysene	< 20	< 20				053W[I]	ug/l	20
Benzo(b)fluoranthene	< 25	< 25				053W	ug/l	25
Benzo(k)fluoranthene	< 20	< 20				053W[I]	ug/l	20
Benzo(a)pyrene	< 25	< 25				053W[I]	ug/l	25
Dibenzo(a,h)anthracene	< 40	< 40				053W[I]	ug/l	40
Indeno(1,2,3-cd)pyrene	< 40	< 40				053W[I]	ug/l	40
Benzo(g,h,i)perylene	< 40	< 40				053W[I]	ug/l	40
Phenol	< 20	< 20				053W[I]	ug/l	20
2-Chlorophenol	< 20	< 20				053W[I]	ug/l	20
2-Methylphenol	< 20	< 20				053W[I]	ug/l	20
4-Methylphenol	< 20	< 20				053W[I]	ug/l	20
2-Nitrophenol	< 20	< 20				053W[I]	ug/l	20
2,4-Dimethylphenol	< 20	< 20				053W[I]	ug/l	20
2,4-Dichlorophenol	< 20	< 20				053W[I]	ug/l	20
2,6-Dichlorophenol	< 20	< 20				053W[I]	ug/l	20
4-Chloro-3-methyl phenol	< 20	< 20				053W[I]	ug/l	20
2,4,6-Trichlorophenol	< 20	< 20				053W[I]	ug/l	20
2,4,5-Trichlorophenol	< 20	< 20				053W[I]	ug/l	20
4-Nitrophenol	< 50	< 50				053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 30	< 30				053W	ug/l	30
Pentachlorophenol	< 60	< 60				053W	ug/l	60
Dimethyl Phthalate	< 20	< 20				053W[I]	ug/l	20
Diethyl Phthalate	< 30	< 30				053W[I]	ug/l	30
Di-n-butyl phthalate	< 30	< 30				053W[I]	ug/l	30
Butyl benzyl phthalate	< 60	< 60				053W[I]	ug/l	60
Bis(2-chloroethyl)ether	< 15	< 15				053W[I]	ug/l	15
Bis(2-chloroisopropyl)ether	< 10	< 10				053W[I]	ug/l	10
4-Chlorophenyl phenyl ether	< 15	< 15				053W[I]	ug/l	15
Bromo phenyl phenyl ether	< 30	< 30				053W[I]	ug/l	30
1,3-Dichlorobenzene	< 15	< 15				053W[I]	ug/l	15
1,2-Dichlorobenzene	< 10	< 10				053W[I]	ug/l	10
1,4-Dichlorobenzene	< 10	< 10				053W[I]	ug/l	10
Nitrobenzene	< 20	< 20				053W[I]	ug/l	20
1,2,4-Trichlorobenzene	< 10	< 10				053W[I]	ug/l	10
2,6-Dinitrotoluene	< 30	< 30				053W[I]	ug/l	30
2,4-Dinitrotoluene	< 20	< 20				053W[I]	ug/l	20
Azobenzene	< 30	< 30				053W[I]	ug/l	30
Hexachlorobenzene	< 20	< 20				053W[I]	ug/l	20
Hexachloroethane	< 40	< 40				053W[I]	ug/l	40
n-Nitro-n-propyl-1-propanamine	< 15	< 15				053W[I]	ug/l	15
Isophorone	< 20	< 20				053W[I]	ug/l	20
Bis(2-chloroethoxy)methane	< 15	< 15				053W[I]	ug/l	15
Hexachlorobutadiene	< 10	< 10				053W[I]	ug/l	10
Anthraquinone	< 30	< 30				053W	ug/l	30
2-nitroaniline	< 50	< 50				053W	ug/l	50
4-nitroaniline	< 50	< 50				053W	ug/l	50
4-Chloroaniline	< 50	< 50				053W	ug/l	50
2-Methylnapthalene	< 50	< 50				053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
Hexachlorocyclopentadiene	< 50	< 50				053W	ug/l	50
Carbazole	< 50	< 50				053W	ug/l	50
3-nitroaniline	< 50	< 50				053W	ug/l	50
Dibenzofuran	< 50	< 50				053W	ug/l	50
Bis (2-ethylhexyl) phthalate	< 50	< 50				053W	ug/l	50
Aniline	< 40	< 40				053W	ug/l	40
Biphenyl	< 40	< 40				053W	ug/l	40
SVOC TIC'S	ND	ND				053W		1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01				040W [I]	mg/l	0.01
Chloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001				040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025				040W [I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050				040W [I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
MTBE	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chloroform	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Benzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Toluene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001				040W [I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001				040W [I]	mg/l	0.001
Bromoform	< 0.001	< 0.001				040W [I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001				040W	mg/l	0.001

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Job Number : 07-32100
Matrix : Water
Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Sample Reference	BH14-01	BH15-01				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	14/05/07	14/05/07						
Date Scheduled	15/05/07	15/05/07						
Laboratory Reference No	230627	230628						
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001				040W [I]	mg/l	0.001
VOC TIC's	ND	ND				040W	mg/l	1

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
EPH Description

Job Number: 07-32100
Client: Environ UK Ltd
Project Code: 64-C11647

Matrix: Waters
Project Name: ALCOA

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
230627	BH14-01	-	14/05/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.
230628	BH15-01	-	14/05/07	The sample chromatogram exhibits too little GC-FID amenable material to provide qualitative analysis.

ALcontrol Technichem
Table Of Results - Appendix

Job Number : 07-32100

Project Code: 64-C11647

Project Name: ALCOA
Client : Environ UK Ltd

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
080W	In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996	Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS)	
072W	In-house method	Determination of cyclopentane extractable hydrocarbons in aqueous samples by large volume injection gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	
053W	In-house method	Determination of semi-volatile organic compounds in aqueous samples by dichloromethane extraction and GC-MS detection	
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	

Jo Cutler
Environ UK Ltd
Hartham Park
Corsham
Wiltshire
SN13 0RR

30 May 2007

TEST REPORT

Our Report Number: 07-32563

Your Order Reference: Instructions of 21/05/2007

2 water samples submitted for analysis on 21/05/2007

Project Name: ALCOA

Project Code: 64C11647

Laboratory analysis started on 25/05/2007
All laboratory analysis completed by 30 May 2007

Sharon Googh
Project Co-Ordinator
ALCONTROL TECHNICHEM

Rexona Rahman
Analytical Reporting Manager
ALCONTROL TECHNICHEM

ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02	BH13_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	16/05/07	16/05/07						
Date Scheduled	21/05/07	21/05/07						
Laboratory Reference No	232782	232783						
Analysis								
pH	6.5	-				084W[I]	pH Units	
* * EPH SUITE * *								
EPH (C10-C40)	7.9	-				072W[I]	mg/l	0.01

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH13_03					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	16/05/07							
Date Scheduled	21/05/07							
Laboratory Reference No	232783							
Analysis								
* * CWG SUITE * *								
Aliphatic C5-C6	< 0.01					CWGW	mg/l	0.01
Aliphatic >C6-C8	< 0.01					CWGW	mg/l	0.01
Aliphatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aliphatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aliphatic >C12-C16	0.29					CWGW	mg/l	0.01
Aliphatic >C16-C21	1.4					CWGW	mg/l	0.01
Aliphatic >C21-C35	28					CWGW	mg/l	0.01
Total Aliphatics (C5-C35)	30.02					CWGW	mg/l	0.01
Aromatic C6-C7	< 0.01					CWGW	mg/l	0.01
Aromatic >C7-C8	< 0.01					CWGW	mg/l	0.01
Aromatic >C8-C10	< 0.01					CWGW	mg/l	0.01
Aromatic >C10-C12	< 0.01					CWGW	mg/l	0.01
Aromatic >C12-C16	0.04					CWGW	mg/l	0.01
Aromatic >C16-C21	0.20					CWGW	mg/l	0.01
Aromatic >C21-C35	5.5					CWGW	mg/l	0.01
Total Aromatics (C5-C35)	5.77					CWGW	mg/l	0.01
Volatile Hydrocarbons (C5-C12)	< 0.01					CWGW	mg/l	0.01
Extractable Hydrocarbons (C12-C35)	35.79					CWGW	mg/l	0.01
Total Hydrocarbons (C5-C35)	35.79					CWGW	mg/l	0.01
MTBE	< 0.005					CWGW[I]	mg/l	0.005
Benzene	< 0.005					CWGW[I]	mg/l	0.005
Toluene	< 0.005					CWGW[I]	mg/l	0.005
Ethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
m,p-Xylenes	< 0.005					CWGW[I]	mg/l	0.005
o-Xylene	< 0.005					CWGW[I]	mg/l	0.005
1,3,5-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005
1,2,4-Trimethylbenzene	< 0.005					CWGW[I]	mg/l	0.005

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	16/05/07							
Date Scheduled	21/05/07							
Laboratory Reference No	232782							
Analysis								
* * SVOC SUITE * *								
Naphthalene	< 20					053W[I]	ug/l	20
2-Chloronaphthalene	< 20					053W[I]	ug/l	20
Acenaphthylene	< 20					053W[I]	ug/l	20
Acenaphthene	< 20					053W[I]	ug/l	20
Fluorene	< 20					053W[I]	ug/l	20
Phenanthrene	< 20					053W[I]	ug/l	20
Anthracene	< 20					053W[I]	ug/l	20
Fluoranthene	< 20					053W[I]	ug/l	20
Pyrene	< 20					053W[I]	ug/l	20
Benz(a)anthracene	< 20					053W[I]	ug/l	20
Chrysene	< 20					053W[I]	ug/l	20
Benzo(b)fluoranthene	< 25					053W	ug/l	25
Benzo(k)fluoranthene	< 20					053W[I]	ug/l	20
Benzo(a)pyrene	< 25					053W[I]	ug/l	25
Dibenzo(a,h)anthracene	< 40					053W[I]	ug/l	40
Indeno(1,2,3-cd)pyrene	< 40					053W[I]	ug/l	40
Benzo(g,h,i)perylene	< 40					053W[I]	ug/l	40
Phenol	< 20					053W[I]	ug/l	20
2-Chlorophenol	< 20					053W[I]	ug/l	20
2-Methylphenol	< 20					053W[I]	ug/l	20
4-Methylphenol	< 20					053W[I]	ug/l	20
2-Nitrophenol	< 20					053W[I]	ug/l	20
2,4-Dimethylphenol	< 20					053W[I]	ug/l	20
2,4-Dichlorophenol	< 20					053W[I]	ug/l	20
2,6-Dichlorophenol	< 20					053W[I]	ug/l	20
4-Chloro-3-methyl phenol	< 20					053W[I]	ug/l	20
2,4,6-Trichlorophenol	< 20					053W[I]	ug/l	20
2,4,5-Trichlorophenol	< 20					053W[I]	ug/l	20
4-Nitrophenol	< 50					053W	ug/l	50

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	16/05/07							
Date Scheduled	21/05/07							
Laboratory Reference No	232782							
Analysis								
* * SVOC SUITE Cont.. * *								
2,3,4,6-Tetrachlorophenol	< 30					053W	ug/l	30
Pentachlorophenol	< 60					053W	ug/l	60
Dimethyl Phthalate	< 20					053W[I]	ug/l	20
Diethyl Phthalate	< 30					053W[I]	ug/l	30
Di-n-butyl phthalate	< 30					053W[I]	ug/l	30
Butyl benzyl phthalate	< 60					053W[I]	ug/l	60
Bis(2-chloroethyl)ether	< 15					053W[I]	ug/l	15
Bis(2-chloroisopropyl)ether	< 10					053W[I]	ug/l	10
4-Chlorophenyl phenyl ether	< 15					053W[I]	ug/l	15
Bromo phenyl phenyl ether	< 30					053W[I]	ug/l	30
1,3-Dichlorobenzene	< 15					053W[I]	ug/l	15
1,2-Dichlorobenzene	< 10					053W[I]	ug/l	10
1,4-Dichlorobenzene	< 10					053W[I]	ug/l	10
Nitrobenzene	< 20					053W[I]	ug/l	20
1,2,4-Trichlorobenzene	< 10					053W[I]	ug/l	10
2,6-Dinitrotoluene	< 30					053W[I]	ug/l	30
2,4-Dinitrotoluene	< 20					053W[I]	ug/l	20
Azobenzene	< 30					053W[I]	ug/l	30
Hexachlorobenzene	< 20					053W[I]	ug/l	20
Hexachloroethane	< 40					053W[I]	ug/l	40
n-Nitro-n-propyl-1-propanamine	< 15					053W[I]	ug/l	15
Isophorone	< 20					053W[I]	ug/l	20
Bis(2-chloroethoxy)methane	< 15					053W[I]	ug/l	15
Hexachlorobutadiene	< 10					053W[I]	ug/l	10
Anthraquinone	< 30					053W	ug/l	30
2-Methylnapthalene	< 50					053W	ug/l	50
Aniline	< 40					053W	ug/l	40
Hexachlorocyclopentadiene	< 50					053W	ug/l	50
Dibenzofuran	< 50					053W	ug/l	50

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ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02					Method No	Units	LOD
Sample Depth (m)	-							
Date Sampled	16/05/07							
Date Scheduled	21/05/07							
Laboratory Reference No	232782							
Analysis								
Carbazole	< 50					053W	ug/l	50
4-Chloroaniline	< 50					053W	ug/l	50
Bis (2-ethylhexyl) phthalate	< 50					053W	ug/l	50
4-nitroaniline	< 50					053W	ug/l	50
3-nitroaniline	< 50					053W	ug/l	50
2-nitroaniline	< 50					053W	ug/l	50
Biphenyl	< 40					053W	ug/l	40

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ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02	BH13_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	16/05/07	16/05/07						
Date Scheduled	21/05/07	21/05/07						
Laboratory Reference No	232782	232783						
Analysis								
* * VOC SUITE * *								
Vinyl Chloride	< 0.01	< 0.01				040W[I]	mg/l	0.01
Chloroethane	0.006	< 0.001				040W[I]	mg/l	0.001
Trichlorofluoromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1-Dichloroethene	< 0.001	< 0.001				040W	mg/l	0.001
112-Trichloro-122-Trifluoroethane	< 0.025	< 0.025				040W[I]	mg/l	0.025
Dichloromethane	< 0.050	< 0.050				040W[I]	mg/l	0.05
Trans-1,2 Dichloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
MTBE	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1 -Dichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Cis-1,2 Dichloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Chloroform	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,1-Trichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2-Dichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Benzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Carbon Tetrachloride	< 0.001	< 0.001				040W[I]	mg/l	0.001
Trichloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Bromodichloromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Cis-1,3 Dichloropropene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Trans-1,3 Dichloropropene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,2-Trichloroethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Toluene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Dibromochloromethane	< 0.001	< 0.001				040W[I]	mg/l	0.001
Tetrachloroethene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Chlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
Ethyl Benzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
m,p-Xylenes	< 0.001	< 0.001				040W[I]	mg/l	0.001
Bromoform	< 0.001	< 0.001				040W[I]	mg/l	0.001
o-Xylene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,1,2,2 Tetrachloroethane	< 0.001	< 0.001				040W	mg/l	0.001

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ALcontrol Technichem
Table Of Results

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563
Matrix : Water
Project Code: 64C11647

Sample Reference	BH12_02	BH13_03				Method No	Units	LOD
Sample Depth (m)	-	-						
Date Sampled	16/05/07	16/05/07						
Date Scheduled	21/05/07	21/05/07						
Laboratory Reference No	232782	232783						
Analysis								
* * VOC SUITE Cont.. * *								
1,3,5 Trimethylbenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2,4 Trimethylbenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,3 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,4 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001
1,2 Dichlorobenzene	< 0.001	< 0.001				040W[I]	mg/l	0.001

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ALcontrol Technichem
EPH Description

Matrix: Waters
Project Name: ALCOA

Job Number: 07-32563
Client: Environ UK Ltd
Project Code: 64C11647

Laboratory Reference No	Sample Reference	Sample Depth (m)	Date Sampled	EPH Description
232782	BH12_02	-	16/05/07	The sample chromatogram exhibits a hump of unresolved complex material eluting from <C10 to C40, overlain by a series of peaks between C14 and C17 which requires qualitative analysis by GC-MS for further identification.

ALcontrol Technichem
Table Of Results - Appendix

Project Name: ALCOA
Client : Environ UK Ltd

Job Number : 07-32563

Project Code: 64C11647

Summary of methods contained within report :

Method No.	Reference	Description	Wet/Dry Analysis
CWGW	In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9	Determination of "CWG" banded petroleum hydrocarbons in aqueous samples using a combination of headspace GC-FID (C5-C12) and pentane extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards	
084W	In-house method	Determination of pH in aqueous samples by direct electrometric measurement	
072W	In-house method	Determination of cyclopentane extractable hydrocarbons in aqueous samples by large volume injection gas chromatography with flame ionisation detection. Note: UKAS accreditation only applies to C10-C40 and excludes other carbon banding.	
053W	In-house method	Determination of semi-volatile organic compounds in aqueous samples by dichloromethane extraction and GC-MS detection	
040W	In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters"	Determination of volatile organic compounds in aqueous samples by headspace GC-MS	

Schedule of Accreditation

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ALcontrol Technichem

Issue No: 027 **Issue date:** 22 March 2007

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DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS	Chemical Tests	Documented In-House Methods identified by method number
	Alkali and non-routine metals: Aluminium Calcium Iron Magnesium Molybdenum Potassium Sodium	062 by ICP
	Ammonia (exchangeable)	018
	Leaching Test Method - Water extractable matter	004
	Moisture content	021 by air drying oven
	Organic matter/organic carbon (Acidic dichromate oxidisable matter)	026 by wet oxidation
	Sulphate	025a by inductively coupled plasma spectroscopy (ICP-OES)
	Sulphur (elemental)	032 by High Performance Liquid Chromatography (HPLC)
	Solvent extractable matter	012 by Gravimetry
	Total petroleum hydrocarbons on as received soil (C8 - C40)	065 by GC-FID
	Weight loss on ignition	019

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Anions (water soluble): Chloride Nitrate Sulphate	073 by Ion Chromatography (IC)
	Cyanide - Complex - Free - Total - Thiocyanate	061 by Skalar
	Electrical conductivity	033 by conductivity meter
	Phenols (Speciated) including: Butyl phenols Catechol Cresols Phenol Resorcinol Trimethylphenol Xylenols and Ethylphenols Total monohydric	020 by HPLC
	pH	009 by pH electrode
	Sulphide (acid soluble)	008 by Ion Selective Electrode (ISE)
	Total acid soluble metals including: Arsenic Boron (water soluble for soils) Cadmium Chromium Copper Lead Nickel Mercury Selenium Zinc	016 by Inductively Coupled Plasma Spectroscopy (ICP)
	Volatile Organic Compounds (VOC's): 1,1-Dichloroethane 1,1,1-Trichloroethane 1,1,2,2 Tetrachloroethane	071 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd) Volatile Organic Compounds (VOC's): (cont'd) 1,1,2-trichloro-1,2,2-trifluoroethane 1,1,2-Trichloroethane 1,1-Dichloroethene 1,2 Dichlorobenzene 1,2,4 Trimethylbenzene 1,2-Dichloroethane 1,3 Dichlorobenzene 1,3,5 Trimethylbenzene 1,4 Dichlorobenzene Benzene Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Cis-1,2 dichloroethene Cis-1,3 Dichloropropene Dibromochloromethane Dichloromethane Ethyl benzene m,p-Xylenes MTBE o-Xylene Tetrachloroethene Toluene Trans-1,2 Dichloroethene Trans-1,3 dichloropropene Trichloroethene Trichlorofluoromethane Vinyl chloride Polychlorinated Biphenyls (PCB's): PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153 PCB Congener 180	039 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Polynuclear Aromatic Hydrocarbons (PAH): Acenaphthalene Acenaphthene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(123cd)Pyrene Naphthalene Phenanthrene Pyrene	022 by Gas Chromatography Mass Spectrometry (GC-MS)
	Semivolatile Organic Compounds (SVOC's): 1,2,4-trichlorobenzene 1,2-dichlorobenzene 1,3-dichlorobenzene 1,4-dichlorobenzene 2,4,5-trichloropehnol 2,4,6-trichlorophenol 2,4-dichlorophenol 2,4-dimethylphenol 2,6-dichlorophenol 2-chloronaphthalene 2-chlorophenol 2-methylphenol 4-chloro-3-methyl phenol 4-chlorophenyl phenyl ether 4-methylphenol Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Anthraquinone Azobenzene	053S by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd) Semivolatile Organic Compounds (SVOC's): (cont'd) Bis(2-chloroethoxy)methane Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether Bromo phenyl phenyl ether Butyl benzyl phthalate Diethyl phthalate Dimethylphthalate Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Isophorone Naphthalene Nitrobenzene n-nitroso-di-n-propyl-1-propanamine Phenol Benzo(k)fluoranthene Chrysene Di-n-butyl phthalate Fluoranthene Indeno (1,2,3-cd)pyrene Phenanthrene Pyrene	
	Triazines: Ametryn Atrazine Prometryn Propazine Simazine Simetryn Terbutryn Terbuthylazine	075 by Gas Chromatography Mass Spectrometry (GC-MS)
	Phenyl Urea Herbicides: Chlorotoluron Diuron Isoproturon Linuron Methabenzthiazuron Monuron	079 by HPLC-diode array

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd) Phenyl Urea Herbicides: (cont'd) Monolinuron Carbetamide Carbendazim Bromacil Cyanazine Carbaryl Propham Methiocarb Pirimicarb Chlorbufam Chlorpropham Organochlorine Pesticides: Aldrin Cis-chlordane Trans-chlordane o,p-DDE p,p-DDE p,p-DDT o,p-DDT Dichlobenil Dieldrin α endosulphan Endosulphan sulphate Endrin Fluoxypyr Hexachlorobenzene Hexachlorobutadiene Hexachloroethane a HCH ß HCH ? HCH d HCH Heptachlor Cis-Heptachlor epoxide Isodrin o,p-Methoxychlor p,p Methoxychlor Pendimethalin Pentachloroethane Propyzamide p,p-TDE o,p-TDE	076 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd) Organochlorine Pesticides: (cont'd) Tecnazene Tri-allate Trifluralin 1,2,4 Trichlorobenzene 1,3,5 Trichlorobenzene 1,2,3 Trichlorobenzene 1,2,4,5 Tetrachlorobenzene Triademefon Organophosphorus Pesticides: Carbophenthion Chlorofenvinphos Chlorpyrifos Chlorpyrifos-methyl Coumaphos Diazinon Dichlorvos Disulfoton EPN Ethion Fenthion Fonofos Heptenophos Malathion Methacriphos Parathion-ethyl Parathion-methyl Phorate Phosalone Phosmet Pirimiphos-methyl Propetamphos Sulfotep Tributyl phosphate Triphenyl phosphate Organotin Compounds: Dibutyl tin Tributyl tin Tetrabutyl tin Triphenyl tin	077 by Gas Chromatography Mass Spectrometry (GC-MS) 083 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Extractable Petroleum Hydrocarbons: including aromatic/aliphatic split and banding: C12-C16 C16-C21 C21-C35	070 Hexane Extraction and Gas Chromatography Flame Ionisation Detector
	Phenoxy Acid Herbicides: 2,3,6-TBA Dicamba Benazolin 4-CPA Bentazone 2,4-D MCPA Bromoxynil Triclopyr 2,4,5-T Dichlorprop Mecoprop Ioxynil Flamprop Methyl Fenoprop 2,4-DB MCPB Diclofop PCP Flamprop-isopropyl	082 by HPLC-DAD
	Total Carbon Total Organic Carbon	092 using ELTRA carbon analyser
SOILS	Chemical Tests	Documented In-House Method to meet the requirements of the Environment Agency MCERTS Performance Standard - chemical testing of soil
	Cyanide - Total - Free - Thiocyanate	061 by Skalar
	Ammonia (exchangeable)	018

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Sulphur (elemental)	032 by High Performance Liquid Chromatography (HPLC)
	Boron (water soluble)	016 by Inductively Coupled Plasma Spectroscopy (ICP)
	Elements: Antimony Arsenic Barium Beryllium Cadmium Chromium Cobalt Copper Lead Manganese Mercury Molybdenum Nickel Selenium Vanadium Zinc	069 by Inductively Coupled Plasma Spectroscopy (ICP-OES)
	Loss on ignition	019 by Gravimetry
	pH	084
	Sulphate (acid soluble)	025a by Inductively Coupled Plasma Spectroscopy (ICP-OES)
	Water soluble chloride (2:1) Water soluble sulphate (2:1)	073 by Ion Chromatography
	Water soluble sulphate (2:1)	074 by ICP-OES
	Organotin Compounds: Dibutyl tin Tributyl tin Tetrabutyl tin Triphenyl tin	083 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Phenols (Speciated): Butyl phenols Cresols Phenol Propylphenols Xylenols and Ethylphenols	020 by HPLC
	Polychlorinated Biphenyls (PCB's): PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153 PCB Congener 180	039 by Gas Chromatography Mass Spectrometry (GC-MS)
	Polynuclear Aromatic Hydrocarbons (PAH): Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Coronene Dibenz(a,h)anthracene Dibenz(a,l)pyrene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene	022 by Gas Chromatography Mass Spectrometry (GC-MS)
	pH	009 by pH electrode
	Sulphide (acid soluble)	008 by Ion Selective Electrode (ISE)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Semivolatile Organic Compounds (SVOC's): 1,2,4-trichlorobenzene 1,2-dichlorobenzene 1,3-dichlorobenzene 2,4,5-trichlorophenol 2,4-dichlorophenol 2,4-dimethylphenol 2,6-dichlorophenol 2-chlorophenol 4-chloro-3-methyl phenol 4-methylphenol Bis(2-chloroethyl)ether Bromo phenyl phenyl ether Butyl benzyl phthalate Dimethylphthalate Hexachlorobenzene Hexachlorobutadiene Isophorone Naphthalene Nitrobenzene Fluoranthene Dibenzofuran Dibenz(ah)anthracene	053S by Gas Chromatography Mass Spectrometry (GC-MS)
	Volatile Organic Compounds (VOC): 1,1,2-Trichloroethane Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Cis-1,2 dichloroethene Cis-1,3 dichloropropene Dibromochloromethane Styrene Trans-1,3 dichloropropene Trichloroethene Trichlorofluoromethane 2,2-dichloropropane 1,1-dichloropropane 1,2-dichloropropane 1,3-dichloropropane Dibromomethane	071S by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
SOILS (cont'd)	Chemical Tests (cont'd)	
	Volatile Organic Compounds (VOC): (cont'd)	
	n-propylbenzene bromobenzene isopropylbenzene 1,2-dibromoethane chloromethane dichlorodifluoromethane tert-butylbenzene carbon disulphide 1,2,3 trichloropropane 2-chlorotoluene 4-chlorotoluene sec-butylbenzene 4-isopropyltoluene bromochloromethane	
	Total Petroleum Hydrocarbons	065 Hexane Extraction and Rapid Gas Chromatography Mass Spectrometry
	Extractable Petroleum Hydrocarbons	070 Hexane Extraction and Gas Chromatography Flame Ionisation Detector
	Volatile Petroleum Hydrocarbons: Petroleum Range Organics C5-C10 MTBE Benzene Toluene Ethylbenzene m,p-xylene o-xylene 1,3,5-trimethylbenzene 1,2,4-trimethylbenzene	068 Gas Chromatography Flame Ionisation Detector
	Total Organic Carbon	092 using ELTRA carbon analyser

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS	Chemical Tests	
Groundwater, surface water, effluent and leachate	Biological Oxygen Demand (BOD)	036 by oxygen specific electrode
	Solvent Extractable Matter	013 by gravimetry
	Suspended solids Settleable solids and Total Dissolved Solids	029
	Total Organic Carbon (TOC)	010 using TOC analyser
	Chromium (hexavalent)	007 by Colorimetry
	Cyanide - Complex - Free - Total - Thiocyanate	061 by Skalar
	Non-routine metals: Calcium Magnesium Potassium Sodium	062 by ICP
	Phenols (Speciated) including: Butyl phenols Catechol Cresols Naphthols Phenol Resorcinol Trimethylphenol Xylenols and Ethylphenols Total monohydric	020 by HPLC
	Volatile Organic Compounds (VOC's): 1,1-Dichloroethane 1,1,1-Trichloroethane 1,1,2,2 Tetrachloroethane 1,1,2-trichloro-1,2,2-trifluoroethane 1,1,2-Trichloroethane 1,1-Dichloroethene 1,2 Dichlorobenzene 1,2,4 Trimethylbenzene	040 by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd) Groundwater, surface water, effluent and leachate (cont'd)	<u>Chemical Tests</u> (cont'd) Volatile Organic Compounds (VOC's): (cont'd) 1,2-Dichloroethane 1,3 Dichlorobenzene 1,3,5 Trimethylbenzene 1,4 Dichlorobenzene Benzene Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Cis-1,2 Dichloroethene Cis-1,3 Dichloropropene Dibromochloromethane Dichloromethane Ethyl benzene m,p-Xylenes MTBE o-Xylene Tetrachloroethene Toluene Trans-1,2 Dichloroethene Trans-1,3 dichloropropene Trichloroethene Trichlorofluoromethane Vinyl chloride Polychlorinated Biphenyls (PCB's): PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153 PCB Congener 180 Polynuclear Aromatic Hydrocarbons (PAH): Acenaphthalene Acenaphthene Anthracene Benzo(a)anthracene Benzo(a)pyrene	039 by Gas Chromatography Mass Spectrometry (GC-MS) 022W by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd) Groundwater, surface water, effluent and leachate (cont'd)	<u>Chemical Tests</u> (cont'd) Polynuclear Aromatic Hydrocarbons (PAH): (cont'd) Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Chrysene Dibenzo(a,h)anthracene Fluoranthene Fluorene Indeno(123cd)Pyrene Naphthalene Phenanthrene Pyrene Semivolatile Organic Compounds (SVOC's): 1,2,4-trichlorobenzene 1,2-dichlorobenzene 1,3-dichlorobenzene 1,4-dichlorobenzene 2,4,5-trichlorophenol 2,4,6-trichlorophenol 2,4-dichlorophenol 2,4-dimethylphenol 2,4-dinitrotoluene 2,6-dichlorophenol 2,6-dinitrotoluene 2-chloronaphthalene 2-chlorophenol 2-methylphenol 2-nitrophenol 4-chloro-3-methyl phenol 4-chlorophenyl phenyl ether 4-methylphenol Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Anthraquinone Azobenzene Bis(2-chloroethoxy)methane	053W by Gas Chromatography Mass Spectrometry (GC-MS)

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Groundwater, surface water, effluent and leachate (cont'd)	Semivolatile Organic Compounds (SVOC's): (cont'd) Bis(2-chloroethyl)ether Bis(2-chloroisopropyl)ether Bromo phenyl phenyl ether Butyl benzyl phthalate Diethyl phthalate Dimethylphthalate Fluorene Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Isophorone Naphthalene Nitrobenzene n-nitroso-di-n-propyl-1-propanamine Phenol Benzo(k)fluoranthene Chrysene Di-n-butyl phthalate Fluoranthene Indeno (1,2,3-cd)pyrene Phenanthrene Pyrene	
	Ammoniacal Nitrogen	057 by ion selective
(including saline water)	Chemical Oxygen Demand (COD)	054 by colorimetry
	Sulphide	055 by colorimetry
	Sulphate	016 by inductively coupled plasma spectroscopy (ICP-OES)
	Cyclopentane extractable hydrocarbons	072 by LVI/GC/FID
	Volatile Petroleum	068W Gas Chromatography

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Groundwater, surface water, effluent and leachate (cont'd)	Hydrocarbons: Petroleum Range Organics C5-C10 MTBE Benzene Toluene Ethylbenzene m,p-xylene o-xylene 1,3,5-trimethylbenzene 1,2,4-trimethylbenzene	Flame Ionisation Detector
Groundwater (including saline water), surface water, effluent and leachate	Elements: Aluminium Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Cobalt Chromium Copper Iron Lead Mercury Magnesium Manganese Molybdenum Nickel Selenium Sodium Thallium Vanadium Zinc	080 by Inductively Coupled Plasma Mass Spectrometry
Groundwater, surface water, effluent and leachate	pH and conductivity	084
	Alkalinity	035 by titrimetry
	Phosphate	087 by colorimetry

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd)	Chemical Tests (cont'd)	
Groundwater, surface water, effluent and leachate (cont'd)	Anions: fluoride chloride nitrite nitrate bromide sulphate	086 by ion chromatography
	Phenoxy Acid Herbicides: 2,3,6-TBA Dicamba Benazolin 4-CPA Bentazone 2,4-D MCPA Bromoxynil Triclopyr 2,4,5-T Dichlorprop Mecoprop Ioxynil Flamprop Methyl Fenoprop 2,4-DB MCPB Diclofop Flamprop-isopropyl	082W by HPLC-DAD
	Phenylurea and carbamate pesticides: Chlorotoluron Diuron Isoproturon Linuron Methabenzthiazuron Monuron Monolinuron Carbetamide Carbendazim Bromacil Cyanazine Carbaryl Propham Methiocarb Pirimicarb	079W by HPLC-DAD

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
WATERS (cont'd) Groundwater, surface water, effluent and leachate (cont'd)	Chemical Tests (cont'd) Phenylurea and carbamate pesticides: (cont'd) Chlorbufam Chlorpropham	
	END	

United Kingdom Accreditation Service

ACCREDITATION CERTIFICATE

Copy

TESTING LABORATORY
No. 1141

ALcontrol Technichem

is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005
General Requirements for the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope as detailed in and at the locations specified in the schedule to this certificate, and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated 18 June 2005).

The schedule to this certificate is an essential accreditation document and from time to time may be revised and reissued by the United Kingdom Accreditation Service. The most recent issue of the schedule of accreditation, which bears the same accreditation number as this certificate, is available from the UKAS website www.ukas.org.

This Accreditation is subject to continuing conformity
with United Kingdom Accreditation Service requirements. The absence of a schedule on the UKAS website indicates that the accreditation is no longer in force.

R Belk

Accreditation Manager, United Kingdom Accreditation Service

Initial Accreditation date
04 October 1991

This certificate issued on
15 December 2005

The Department of Trade and Industry (DTI) has entered into a memorandum of understanding with the United Kingdom Accreditation Service (UKAS) through which UKAS is recognised as the national body responsible for assessing and accrediting the competence of organisations in the fields of calibration, testing, inspection and certification of systems, products and personnel