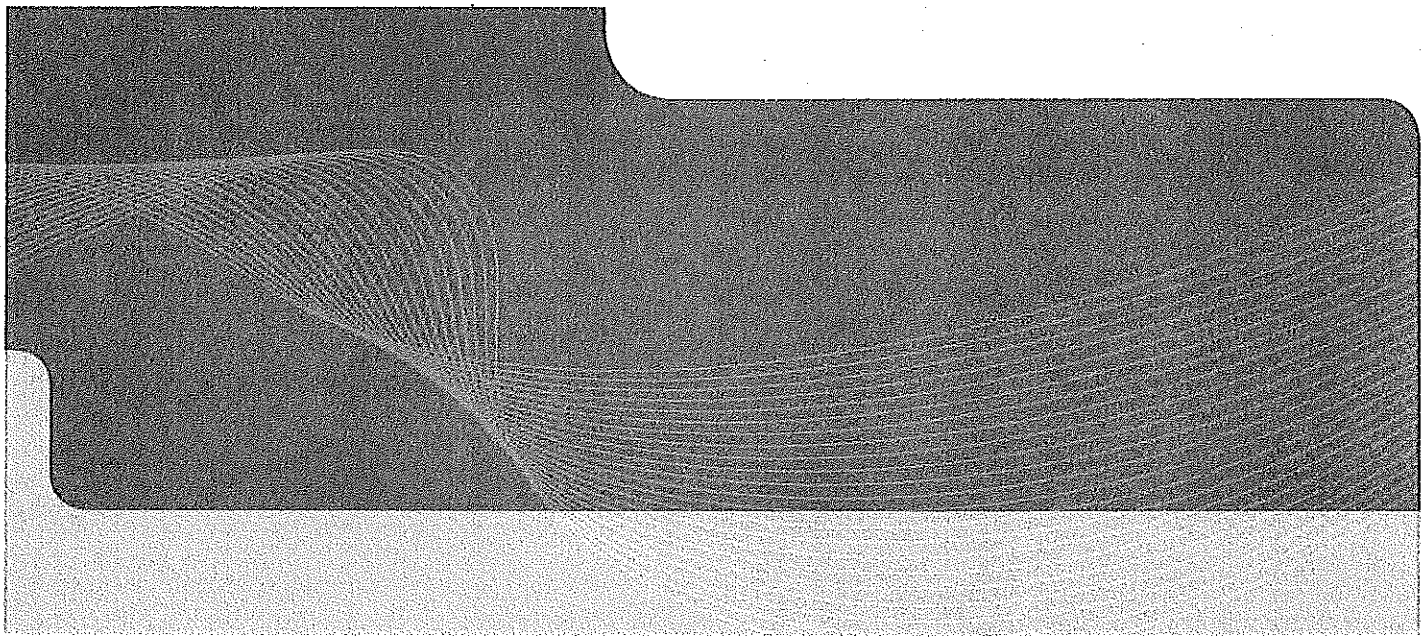
CLIENTS|PEOPLE|PERFORMANCE

EPA Victoria

Report for Cairnlea Validation Sampling

May 2011 Soil Validation Works

July 2011



INFRASTRUCTURE | MINING & INDUSTRY | DEFENCE | PROPERTY & BUILDINGS | ENVIRONMENT

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3. *must not be copied to, used by, or relied on by any person other than EPA without the prior written consent of GHD;*
4. *may only be used for the purpose of assessment of soil condition (and must not be used for any other purpose).*

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The services undertaken by GHD in connection with preparing this Report were limited to those specifically detailed in section 1 and 2 of this Report;

The opinions, conclusions and any recommendations in this Report are based on assumptions made by GHD when undertaking services and preparing the Report ("Assumptions"), including (but not limited to):

- *the accuracy of information supplied being true and correct at the time of reporting;*
- *no change to the condition of the site from that which was observed during site sampling works.*

GHD expressly disclaims responsibility for any error in, or omission from, this Report arising from or in connection with any of the Assumptions being incorrect.

Site conditions (including any the presence of hazardous substances and/or site contamination) may change after the date of this Report. GHD expressly disclaims responsibility:

- *arising from, or in connection with, any change to the site conditions; and*
- *to update this Report if the site conditions change.*

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

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Executive Summary

GHD Pty Ltd (GHD) was engaged by EPA Victoria (EPA) to conduct soil validation sampling of Audit Areas 16 and 17 of the Former Albion Explosives Factory located at Cairnlea Drive, Cairnlea, Victoria. It was understood that a complaint was made to EPA by an individual who is alleged to have suffered health effects as a result of exposure while working as a construction worker on a section of the site in 2004. As a result of this complaint, it was understood that EPA proposed to replicate part of a validation sampling program that was conducted in 2001 in Audit Areas 16 and 17 (AA16, AA17).

GHD conducted a soil sampling round on 24 and 25 May 2011 under the supervision of EPA staff. The round consisted of the completion of 19 hand auger holes to 1.0 m across the site. Locations were chosen to replicate the 2001 sampling program conducted by Coffey[1] as part of the Environmental Audit on the site. Due to the development of the area, locations often required minor relocation due to housing blocks or pavement occupying previously sampled areas.

Samples were collected and analysed at nominal depths of 0.2 m and 1.0 m below ground level. All collected samples were analysed for a comprehensive suite that included compounds initially assessed during the assessment, remediation and validation works at the site. Results were compared against the 'Class 1' criteria obtained from Table 8-3 of the Albion Explosives Factory Site Audit Report (Coffey, 2001).

All results were reported at concentrations below the adopted criteria except for zinc at the 0.2 m sample at location V_3160006. The reported concentration of 260 mg/kg exceeded the adopted criteria (200 mg/kg) but is considered likely to be attributed to natural background levels within the fill material on site and is not expected to affect a worker's health. The results also validate the original results from the Environmental Audit on the site.

[1] Coffey, 2001. Environmental Audit Report, Former Albion Explosives Factory, Audit Area 16 and 17 (Cairnlea), Coffey Partners International Pty Ltd, 5 November 2001.

1. Introduction

1.1 Background

GHD Pty Ltd (GHD) was engaged by EPA Victoria (EPA) to conduct soil validation sampling of Audit Areas 16 and 17 of the Former Albion Explosives Factory located at Cairnlea Drive, Cairnlea, Victoria (see Figure 1).

It is understood that a complaint was made to EPA by an individual who is alleged to have suffered health effects as a result of exposure while working as a construction worker on a section of the site in 2004. As a result of this complaint, it is understood that EPA proposed to replicate part of a validation sampling program that was conducted in 2004 in Audit Areas 16 and 17 (AA16, AA17).

This factual report outlines the site background, objectives of the project, scope and methodology of the project and presents the field observations and results of the sampling round.

1.2 Project Objectives

The objectives of this project in accordance with EPA brief dated 23 March 2011 are to:

- check on the potential of the soil on the site to have affected the worker's health, and
- validate the results of the initial environmental audit on the site (AA16 and AA17) conducted in 2001.

2. Summary of Field Works

Field works were conducted by GHD between 24 and 25 May 2011. s 33 , and s 33 were present during the field works as requested in the EPA brief.

The following works were undertaken by GHD:

- Project coordination and liaison with EPA by a senior environmental scientist/engineer;
- Development of risk based Occupational Health & Safety (OH&S) procedures for undertaking the intrusive sampling works;
- Procurement of appropriate council approvals, Road Opening Permits and Dial Before You Dig documentation (council approval documents presented in Attachment A);
- Coordination of validation works with EPA staff;
- Engagement of a service location subcontractor, to detect underground pipe and cables prior to intrusive works;
- Advancement of nineteen (19) soil bores at six (6) of the eight (8) areas sampled in the original validation program. Bores were advanced to a depth of 1.0 m, with soil samples collected at the nominal depths of 0.2 and 1.0 m;
- Identification of soil bore locations by GPS to an accuracy of +/- 1.0 m;
- Laboratory analysis of soil samples by a primary and secondary analytical laboratory, ***MGT-Labmark Environmental Laboratories*** and ***ALS Laboratory Group*** respectively, as specified in Table 1 below;
- Comparison of soil sample results with the Class 1 Acceptance Criteria detailed in Table 8.3 of the Albion Explosives Factory Site Audit Report (Coffey, 2001); and
- Preparation of a factual report detailing the works undertaken, analytical results and classification based on the Class 1 Acceptance Criteria.

2.1 Soil Sampling Methodology

2.1.1 Sampling and Analytical Program

The sampling program adopted for this project is detailed in Table 1 in accordance with EPA Brief dated 24 March 2011. The sampling program included collection of quality assurance / quality control (QA/QC) samples in accordance with NEPC (1999) and Standard GHD procedures. Sampling locations are presented in Figure 2.

Table 1 Soil Sampling and Analysis Plan

Site Area	No. Locations	Depths (m)	No. Samples	No. Samples to be tested	Analysis
Area 1	2	0.2	2	2	EPA specified suite[1]
		1.0	2	2	EPA specified suite[1]
Area 2	4	0.2	4	4	EPA specified suite[1]
		1.0	4	4	EPA specified suite[1]
Area 3	2	0.2	2	2	EPA specified suite[1]
		1.0	2	2	EPA specified suite[1]
Area 4	6	0.2	6	6	EPA specified suite[1]
		1.0	6	6	EPA specified suite[1]
Area 6	3	0.2	3	3	EPA specified suite[1]
		1.0	3	3	EPA specified suite[1]
Area 7	2	0.2	2	2	EPA specified suite[1]
		1.0	2	2	EPA specified suite[1]
QC					
5% Blind Samples	-	-	2	2	EPA specified suite[1]
5% Field Splits	-	-	2	2	EPA specified suite[1]
Rinsate Blanks	One per day	-	2	2	EPA specified suite[1]
Trip Blanks	One per sampling event/day		2	2	VOC and SVOC
TOTAL			**46**	**46**	

Note (1) EPA specified suite includes: Explosives (RDX 2, 2,4-DNT 1, 2, 6-DNT 1.3, MNT 1, TNT 1, Chloronitrobenzene 3, Cycloheanone), Metals (arsenic, boron, barium, beryllium, cadmium, chromium, cobalt, copper, mercury, manganese, molybdenum, nickel, lead, antimony, selenium, tin and zinc), Volatile Organic Compounds (VOC - EPA 8260 list), Semi-Volatile Organic Compounds (sVOC - EPA 8270 list), Speciated Phenols (Dimethylphenol, 2 Chlorophenol, 4 Chloro 3 methylphenol, 2 4 Dichlorophenol, 2 4 6 Trichlorophenol, Pentachlorophenol, 2 3 4 6 Tetrachlorophenol, 2 Nitrophenol, 4 Nitrophenol, Phenol, Cresols (Total)), Nitrate, Sulphate and pH.

2.2 Sampling Method, Procedures and Quality Assurance

2.2.1 Soil Sampling Locations

Soil samples were collected from locations consistent with the original validation round conducted by Golder & Associates in 2004. The development of the area meant the original sampling locations could not always be replicated due to the construction of pavements and houses. In these circumstances, locations were chosen as near as possible to original sampling point. Only three locations were moved a significant distance. Locations V_3160001, V_3160002 and V_3160003 were moved approximately 10 metres due to the original locations being situated where a house now exists.

The geology observed at the adjusted sampling locations were consistent with that observed across much of the site, which indicated that relocating sampling locations a short distance was not considered to impact the replication of the original validation results.

All sample locations were surveyed with a handheld Global Positioning System (GPS) to an accuracy of +/- 1 metre.

2.2.2 Sampling Methodology

Soil samples were collected by hand auger. Discrete soil samples were collected from 0.2 and 1.0 m depth at each location. Samples were collected from the hand auger using new disposable gloves and placed directly into laboratory provided sample jars with caps and Teflon liners. Jars were filled leaving no headspace.

A suitably qualified and experienced environmental consultant from GHD undertook the fieldwork and sampling regime. Soil bore logs were prepared for each sampling location and are located in Appendix A.

Soil samples were field screened for volatile compounds using a hand held photo-ionisation detector (PID) and the results of the field screening are detailed in the soil bore logs (refer to Attachment B).

Soil sampling was conducted using GHD Quality Assurance and Quality Control (QA/QC) procedures, which are in accordance with NEPC (1999), ANZECC/NHMRC (1992) and AS4482.1 - 2005 guidelines.

All sampling equipment was cleaned and washed between sampling locations using Phosphate free Decon 90 detergent and rinsed with deionised water.

Once collected, the samples were immediately placed in ice chests and chilled with ice for transport to the nominated laboratory, ***MGT*** (primary) and ***ALS*** (secondary). Both selected laboratories are NATA accredited for the nominated analysis. Chain-of-custody documentation was prepared for sample transfer from the site to the laboratory.

A health and safety plan was prepared prior to site work and provided for reference to site personnel and visitors.

3. Adopted Criteria

The criteria adopted for this assessment are taken from Table 8-3 of the Albion Explosives Factory Site Audit Report (Coffey, 2001). This criterion was derived over a number of years and incorporated works conducted by a number of consultants. The adopted criteria took into account human health and ecological risk assessments, and included separate criteria for varying depths and the varying land uses for the proposed development. The Class 1 Maximum Concentration criteria were applicable at all depth profiles of the study area.

The individual analyte values are listed in the tabulated results, presented in Table 1, Attachment C.

4. Quality Assurance / Quality Control

4.1 Introduction

Quality control samples provide information that discounts or potentially identifies any errors due to possible sources of cross contamination, inconsistencies in sampling, and analytical techniques used. The quality control program comprised the collection and analysis of the following types of samples:

- **Blind Duplicate:** Coded duplicate sample submitted to the primary laboratory for analysis as two individual samples without any indication to the laboratory that they have been duplicated.
- **Field Split:** Duplicate sample with one sample being sent to the secondary laboratory, ***ALS*** for analysis. The same parameters are to be analysed using similar analytical techniques.
- **Trip Blank:** A blank sample placed into the ice chest to indicate whether cross contamination has occurred during transport.
- **Rinsate Blank:** A sample of deionised water collected from equipment used during sampling to indicate whether cross contamination occurred from equipment.

A quantitative measure of the accuracy of the check analyses results obtained was made using calculated relative percentage difference (RPD) values. The RPD values were calculated using the following equation.

$$RPD(\%) = \frac{\langle Co - Cs \rangle}{\left\langle \frac{Co + Cs}{2} \right\rangle} \times 100$$

where Co = concentration obtained from the original sample

Cs = concentration obtained from the duplicate sample

4.2 GHD QC Sampling Program

4.2.1 Compliance with Recommended Holding-Times

All analytes were extracted within both MGT's and ALS's technical holding times, and those set out in Table 3 of AS4482.1 2005 for each analytical.

4.2.2 Blind and Split Duplicate Acceptability

Four (4) duplicate samples [two (2) blind and two (2) split] were analysed as part of the GHD QA/QC program. Tabulated analytical results with RPD results are provided in Table 2, Attachment C.

All RPDs were within the acceptable range of 0-50%, with the exception of the following exceedances shown in Table 2 below.

Table 2 Duplicate RPD Exceedances

Samples	Duplicate Type	RPD %	Analyte	Concentrations ([primary] & [duplicate]) (mg/kg)	LOR	Soil Criteria (Coffey, 2001) (mg/Kg)
V_3160021_0.2 & V_QA1	Blind	***69***	***Sulphate as S***	***64 & 31***	***10***	***NA***
V_3160018_0.2 & V_QA3	Blind	59	Barium	240 & 130	10	1800
		79	Manganese	230 & 530	5	NA
		56	***Zinc***	***41 & 23***	***5***	***200***
		75	***Ethylbenzene***	***0.11 & <0.05***	***0.05***	***14***
		143	***Xylene (m & p)***	***0.6 & <0.1***	***0.1***	***NA***
		169	***Xylene (o)***	***0.6 & <0.05***	***0.05***	***NA***
		156	***Xylene Total***	***1.2 & <0.15***	***0.15***	***14***
V_3160021_0.2 & V_QA2	Split	78	Barium	88 & 200	10	1800
		79	***Zinc***	***10 & 23***	***5***	***200***
V_3160018_0.2 & V_QA4	Split	***133***	***Boron***	***<10 & 50***	***10 & 50***	***NA***
		70	Manganese	230 & 480	5	NA

NOTE: RPDs in ***bold*** are considered acceptable due to concentrations near the laboratory LOR. Discussed further below.

Of the elevated RPDs in Table 2, those in bold were less than 10 times the LOR. While the RPD value appears exaggerated where concentrations are close to the LOR, there is actually a comparatively low difference in concentrations. Therefore a reasonable degree of confidence may still be obtained despite the RPD results being over 50%.

Barium was reported with an RPD exceeding the acceptable range for the split sample V_QA2 and the blind sample V_QA3, all results were well below the Class 1 Criteria (Coffey, 2001) and as such this is not considered to affect the integrity of the data.

Xylene (o) was reported in sample V_3160018 at 0.05 mg/kg while the blind duplicate V_QA3 reported a non-detect (<0.05 mg/kg). The RPD was outside the acceptable range and the primary sample was above 10 times the LOR. There was no adopted criterion for xylene (o) and the total xylene concentration was an order of magnitude below the adopted criteria. It is therefore not expected that this non-conformant RPD value is likely to indicate reduced confidence with the results.

Manganese was reported with an RPD of 79% for V_QA3 and 70% for V_QA4. These RPD values were outside the acceptable range of 10 times the LOR for each analyte. The discrepancy in concentrations can be attributed to the fill material being sampled and inherent heterogeneity of reworked fill. Coffey Environments did not allocate a criteria value for Manganese. The manganese concentrations in both primary, blind and split were below the NEPM 1999 Health Investigation Levels A (HIL A) for a standard residential dwelling with accessible soil for home-grown produces. The manganese levels reported across the investigation area were below the NEPM background level of 850 mg/kg.

4.2.3 Rinsate Blank Samples

Rinsate blanks are collected and analysed to determine the adequacy of equipment decontamination between sample collections.

Two (2) field rinsate samples (V_RB1, V_RB2) were collected during soil sampling. The rinsate blank sample reported all concentrations below the laboratory LOR.

Tabulated rinsate blank results are presented in Table 3, Attachment C.

4.2.4 Trip Blank Samples

Trip (transport) blanks are transported to the laboratory along with the primary and duplicate samples to assess the potential for cross contamination of substances to have occurred whilst en-route to the nominated laboratory. Two (2) trip blank samples (V_TB1, V_TB2) were collected and submitted to MGT for analysis of SVOC and VOC.

The trip blank sample reported concentrations below the laboratory LOR.

Tabulated rinsate blank results are presented in Table 3, Attachment C.

4.2.5 Internal Laboratory Quality Control

Laboratory Duplicates

All RPDs for laboratory duplicates by MGT were within the ranges of acceptability as specified by the respective laboratories.

Matrix Spike Recoveries

MGT matrix spike percentage recoveries were conducted and measured within an acceptability range of 70% and 130% (30-130% for Phenols, 75-125% for metals), with all results being within the said ranges.

Method Blanks

All reported concentrations for laboratory method blanks analysed by MGT were less than their respective reporting limits.

Laboratory Control Sample (LCS) Spike Recoveries

MGT conducted and measured LCS spike percentage recoveries within an acceptability range of 70% and 130% (30-130% for Phenols, 80-120% for Metals), with all results being within the acceptable ranges.

4.3 Chain of Custody Documentation

Chain of custody (CoC) documentation was used to track the handling of the samples from collection, through to analysis at the laboratory. CoCs are presented in Attachment D. Where signatures are missing on the original CoCs, Statutory Declarations were provided by MGT stating that the correct procedures were followed. These are provided along with the CoCs.

4.4 Discussion

The results of the QA/QC program are considered to provide an acceptable degree of confidence in the analytical program completed. Overall, the analytical data set is considered to be valid and acceptable to base conclusions on the contamination status of the Site.

5. Soil Results

5.1 Geology

The geology observed across the site is summarised in Table 3. Soil borelogs for each location are presented in Attachment B.

Table 3 Summary of Observed Geology

Depth Interval	Observed Geology	Comments
0 – 0.55 m+	Fill – Commonly consisted of medium to dark brown Clay with trace silts, sands and gravels.	Fill consistent with mixture of reworked natural material and imported local clays.
(0.55 m – 0.7 m) +	Clay – Light grey brown to medium grey brown; high plasticity.	Natural material only observed at the following locations: • V_3160003 • V_3160004 • V_3160006 • V_3160021

5.2 Analytical Results

All results were reported below the adopted criteria (as discussed in Section 4) except for the following:

- Zinc (260 mg/kg, criteria 200 mg/kg) in sample V_3160006_0.2.

This sample was collected from Fill material and was consistent with the geology observed in surrounding locations. It is not believed that this exceedance can be attributed to anthropogenic sources at the site. The concentration is within the natural background levels detailed in Table 5-A of NEPC (1999) Schedule B(1) and is more likely to be attributed to background levels within the fill material.

Tabulated results are presented in Table 1, Attachment C. Laboratory reports are presented in Attachment E.

6. Conclusions

Following completion of this Validation Sampling Program, GHD can make the following conclusions:

- All boreholes were sampled in accordance with the EPA request for proposal (*Proposed Soil Sampling Program, Dated 24/03/2011*);
- Due to the development of the area, some proposed locations required moving to avoid disturbing private yards or nature strips. Locations were moved as little as possible in these circumstances;
- Samples were collected at depths of 0.2 m and 1.0 m below ground level (0.7 m at V_3160001 due to refusal); and
- All results were reported at concentrations below the adopted soil criteria except for a minor Zinc exceedance at location V_3160002, which can be attributed to natural background levels;
- Results were generally consistent with the results presented in the Coffey (2001) Audit report for the site; and
- The results are not expected to impact a worker's health on the site.

7. References

ANZECC/NHMRC, 1992. *Australian and New Zealand Guidelines for the Assessment and Management of Contaminated Sites.* Australian and New Zealand Environment and Conservation Council/National Health and Medical Research Council.

EPA Victoria, 2000. *A Guide to the Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.* Publication 441, 7th Ed. March 2000.

NEPC, 1999. *National Environment Protection (Assessment of Site Contamination) Measure (NEPM).* National Environment Protection Council.

Standards Australia, 2005. *Australian Standard, Guide to the investigation and sampling of sites with potentially contaminated soil.* AS4482.1 - 2005.

Victorian Government, 2002. *State Environmental Protection Policy (Prevention and Management of Contamination of Land).* Victorian Government Gazette No. S95 June 2002.

Coffey, 2001. Environmental Audit Report, Former Albion Explosives Factory, Audit Area 16 and 17 (Cairnlea), Coffey Partners International Pty Ltd, 5 November 2001.

Figures

Figure 1 Site Location

Figure 2 Sample Locations

1:7,500 (at A3)

0 37.5 75 150 225 300

Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 55

N

Legend

Approximate Area of Investigation

CLIENTS | PEOPLE | PERFORMANCE

EPA Victoria
Cairnlea Validation Sampling

Job Number	31-27640
Revision	A
Date	10 June 2011

Site Location

Figure 1

G:\31\27640\GIS\Maps\Deliverables\31127640_001_Site_Location_A3L.mxd

Data source: VicMap; GHD; Client. Created by: S Ss

Level 8, 180 Lonsdale Street, Melbourne, VIC, Australia T 61 3 8687 8000 F 61 3 8687 8111 E melmail@ghd.com.au W www.ghd.com.au

1:1,250 (at A3)

0 5 10 20 30 40

Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 55

N

Legend

+ Sample Locations

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EPA Victoria
Cairnlea Validation Sampling

Job Number	31-27640
Revision	A
Date	15 June 2011

Sample Locations

Figure 2

G:\31\27640\GIS\Maps\Deliverables\31\27640_001_Site_Location_A3L.mxd

Data source: Aerial - Google Earth Pro (2009) GHD; Client. Created by: S 33

Level 8, 180 Lonsdale Street, Melbourne, VIC, Australia T 61 3 8687 8000 F 61 3 8687 8111 E melmail@ghd.com.au W www.ghd.com.au

Appendix A

Council Permits

BRIMBANK CITY COUNCIL

RN: 033058557

CONSENT FOR WORKS WITHIN A ROAD RESERVE

TO OPEN ROADWAY, FOOTPATH AREA, ETC.

Brimbank Engineering Services
Old Calder Highway
Keilor Victoria 3036
Ausdoc DX30315
Email:info@brimbank.vic.gov.au
Web Page: http//brimbank.vic.gov.au
Telephone: 9249 4430
Facsimile: 9249 4232

This consent is provided in accordance with:
1. The Road Management Act, 2004, Schedule 7
2. The Road Management (Works and Infrastructure) Regulations 2005

CONSENT No. 33351

WORKS MANAGER details: (the person or body responsible for conduct of the works)

Name: ..... Company: GHD

Address: LVL 8, 180 Lonsdale St Melbourne 3000 Telephone: ..... Fax: .....

Mobile: s 33

INFRASTRUCTURE MANAGER details: (the person or body responsible for the provision, installation, maintenance or operation of the non-road infrastructure)

Name: VARIOUS LOCATIONS Company: .....

Address: CAIRNLEA DR Telephone: ..... Fax: .....

CHESTERFIELD RD INTERSECTION. Mobile: .....

PRIMROSE GT & ROSEBERRY/PAULINA INTERSECTION.

PROPERTY DETAILS (location of works)

Lot No.: ..... House No.: .....

Address: SEE ABOVE Suburb: CAIRNLEA

VARIOUS LOCATIONS FOR 3 MONTHS ONLY NOT TRANSFERABLE

For the Purpose of:	Vehicle Crossing	☐	Water Tapping	☐
	Water Plugging	☐	Water Trunk Service	☐
	Fire Services	☐	Underground Mains/Services	☐
	Drainage	☐	Other	☑ Soil testing
Area to be Opened:	Naturestrip	☑	Footpath	☐
	Road	☐	Vehicle Crossing	☐
	Kerb & Channel	☐	Other	☐

Date of Issue: 24.5.11 **Consent Fee:** $58.45

Authorised by Manager Engineering Services per s 33

FOR CONDITIONS TO BE OBSERVED BY THE HOLDER OF THIS CONSENT SEE BACK OF THIS PAGE

Brimbank City Council

Sunshine Office
Alexandra Avenue
Sunshine, Victoria 3020

Keilor Office
Old Calder Highway
Keilor, Victoria 3036

T 9249 4000
F 9249 4351
W brimbank.vic.gov.au

GHD
MELBOURNE
RECEIVED
12 MAY 2011

NAME	INT	DATE
s 33		
FILE:		

File: SF:Cairnlea Drive and Chesterfield Road, Cairnlea:ENQ236206 (11/30262)

10 May 2011

GHD
Level 8, 180 Londale Street
Melbourne Vic 3000

Attention: s 33
s 33

Dear s 33 ,

RE: Bore hole drilling at Cairnlea Drive and Chesterfield Road Intersection, Cairnlea

Thank you for your notification received on 3 May 2011 regarding the proposed works including the bore hole drilling at Cairnlea Drive and Chesterfield Road, Cairnlea.

The following conditions will apply:

1. All work must be undertaken in accordance with the Road Management Act 2004 and the Road Safety Act 1986 including:
   - That you have in operation a traffic management plan prepared by a qualified traffic consultant
   - That a copy of the traffic management plan is retained at the worksite at all times
   - That you minimize disruption to traffic
   - That you consult with affected property owners
   - That you are responsible for your re-instatement works for 12 months following the completion of those works;
   - That the undertaking of permanent re-instatement works are conducted in accordance with Clause 12, Schedule 7 of the Road Management Act 2004

Please Note: Failure to comply with your obligations may incur penalties

2. You will ensure that the proposed works meet relevant OH&S standards.

3. You are required to arrange a joint site inspection with Council's s 33 , s 33 on s 33 , seven (7) days prior to the commencement of works to verify and record existing conditions including any prior damage to Council's assets.

4. Upon completion of works, you are to arrange a further joint inspection of the works with s 33 . This inspection will be to determine the extent and confirm the nature of re-instatement required.

5. Council requires that you **ONLY** bore under driveways, footpaths, road pavement and existing trees (also refer to condition 10 below).

6. You must attempt to bore under each and every asset described above, and prove to Council's s 33 that boring has been attempted.

7. At locations where your proposed main crosses the Road Pavement or Concrete Aprons, the installation of the main is to be carried out, as far as practicable, by thrust boring under the road pavement. Any void between the bore and the conduit is to be backfilled by pressure grout. Where boring cannot be achieved, open cut will only be considered as a last resort.

8. Where consent is subsequently given to open cut, for:

   a. **Vehicle Crossings**
   You must liaise with the affected property owners with regards to the timing of the works to ensure that disruption to their access/operations is minimised.

   b. **Road Pavement or Concrete Apron**
   The open cut is to be saw-cut to the full depth of asphalt and backfilled with 20mm Nominal size, Class 2, Fine Crushed Rock (wet mix) to the base of the existing asphalt in conformity with VicRoads Standard Specifications for road works. The material is to be placed in layers on 150mm loose depth and adequately compacted to 98% Standard Compaction, as per AS 1289. Asphalt to be laid after placement of a crack inhibitive membrane.

9. Re-instatement of Concrete Aprons, vehicle crossings and other concrete will involve dowelling to the existing concrete as per Council's Standard Drawing No.S345 and where appropriate as per Council's Standard Drawings for crossings, infilling with minimum strength 25Mpa concrete and to Council's satisfaction. Where concrete is to be removed, it must be removed from the nearest construction joint.

10. Where excavation is carried out within two (2) metres of any existing tree, the main is to be installed by boring under the tree and tree roots. Council's Parks Services should be notified on 9249 4357 before such works are commenced.

    If any trees are affected in any way, Council will seek compensation in accordance with the Standards Association Draft 92-100R, "Trees Amenity Evaluation".

11. Where the excavation face is near any existing masonry or concrete structure, the effect of the excavation and backfilling on the structure should be considered. As a minimum standard, the trench is to be backfilled with 20mm Nominal size, Class 3 Fine Crushed Rock to the base of the structure, compacted in layers to 90% Standard Compaction as per AS 1289 and topped up with selected excavated material.

a. The use of stabilized sand is acceptable as long as it is detailed on the plan.

12. You must undertake your own investigations into the location of private and other Utilities' assets, including house drains and property drains, and ensure that there is no conflict with your proposed installation.

13. You are to re-instate any damage that is caused to private, other utilities and Council assets to Council's satisfaction

14. Temporary re-instatement of road pavements are required to be undertaken in accordance with VicRoads Specifications Section 304.

If you should require any additional information to the above please do not hesitate to contact I s 33 on s 33

Yours sincerely

s 33

Engineering Services

cc: s 33

Appendix B

Soil Borelogs

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160001
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 **to:** 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 0.7
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:** [illegible]

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL. Grass.	M	St		0.00 -0.05
						FILL Clay; dark brown; medium plasticity.				0.05
		0.9	V_3160001_0.2							
										-0.40
						As above; with coarse angular gravel.				0.40
		0.7	V_3160001_0.7							
						Refusal @ 0.7m on road base.				-0.70 0.70
1.0										

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering PT Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160002
Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:**

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL Grass.	M	St		0.00 -0.05
						FILL Clay with gravel; dark brown; medium plasticity; coarse angular gravel.				0.05
		0.6	V_3160002_0.2			Clay with fine gravel; dark brown; medium plasticity; fine angular gravel.		S		-0.20 0.20
						Clay; mottled dark brown to grey; high plasticity.				-0.70 0.70
		0.2	V_3160002_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:			
RW(x) Rotary Wash	GP Geoprobing		
RT(x) Rotary Triple Tube	PSC(x) Percussion Simultanous Casing		
PC(x) Percussion Cable Tool	AS Augering - Solid Flight		
PD(x) Percussion Down Hole	AH Augering - Hollow Flight		
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	H Hand Augering PT Push Tubing		

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

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160003
Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA Checked by: [illegible]

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Pea gravel; yellowish orange.	M	St		0.00 -0.05
						Clay with sand; dark brown; angular fine sand.				0.05
		0.3	V_3160003_0.2							
						Clay with gravel; yellowish orange; angular; coarse.	D			-0.30 0.30
						Clay with gravel; light grey; white coarse angular gravel.		VSt		-0.45 0.45
						CLAY Medium brown; High plasticity.				-0.60 0.60
		0.2	V_3160003_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:			
RW(x) Rotary Wash	GP Geoprobing		
RT(x) Rotary Triple Tube	PSC(x) Percussion Simultaneous Casing		
PC(x) Percussion Cable Tool	AS Augering - Solid Flight		
PD(x) Percussion Down Hole	AH Augering - Hollow Flight		
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.	H Hand Augering PT Push Tubing		

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

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160004
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** SJS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Clay with trace sand; medium brown; fine grained sand; organics (roots) to 0.3m.	M	F/St		0.00
		4	V_3160004_0.2							
										-0.70
						CLAY Light grey brown.		St		0.70
		6.3	V_3160004_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	PSC(x)	Percussion Simultanous Casing
RT(x)	Rotary Triple Tube	AS	Augering - Solid Flight
PC(x)	Percussion Cable Tool	AH	Augering - Hollow Flight
PD(x)	Percussion Down Hole	H	Hand Augering
GP	Geoprobing	PT	Push Tubing

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

Moisture:

D	Dry
D/M	Dry - Moist
M	Moist
M/W	Moist - Wet
W	Wet

Consistency:

Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160005
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1.05
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:**

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, Imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Clay with trace sand; medium brown; fine sand; organics (roots) to 0.25m.	M/W	M/St		0.00
		1	V_3160005_0.2							
										-0.40
						Gravel with Clay; coarse grained sub angular to angular gravel.		L/MD		0.40
										-0.55
						CLAY Light grey brown; feint medium brown mottling.	M	St		0.55
1.0		5.3	V_3160005_1.0							
										-1.05
						EOH @ 1.05m.				1.05

NOTES:

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

Drilling Abbreviations:			
RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		H	Hand Augering PT Push Tubing

Moisture:	
D	Dry
D/M	Dry - Moist
M	Moist
M/W	Moist - Wet
W	Wet

Consistency:	
Granular Soils	
(VL) Very Loose	(MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense
Cohesive Soils	
(VS) Very Soft	(S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160006
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 **to:** 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1.05
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:**

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, Imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Tanbark underlain by matting/fabric.				0.00 -0.05
						Clay with Sand; light to medium brown; fine grained sand.	M/W	S	Plastic layer below tan bark.	0.05
		1.7	V_3160006_0.2							
										-0.30
						As above; light brown; medium grained sand.	M	F/St		0.30
										-0.80
						Clay; medium brown.		St		0.80
1.0		0.5	V_3160006_1.0							
						EOH @ 1.05m.				-1.05 1.05

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering
		PT	Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160007

Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA/RM **Checked by:**

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL Grass.	M	St		0.00 -0.05
						FILL Clay with Gravel; mottled reddish brown to light grey; high plasticity; fine angular gravel.				0.05
		1.6	V_3160007_0.2							
										-0.90
		0.6	V_3160007_1.0			Clay; pale grey brown.	D/M			0.90
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering
		PT	Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160008
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 25/06/2011 to: 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** TS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL. Silty Sand; grass.	M	St		0.00 -0.05
						FILL Clay with Gravel; mottled reddish brown to light grey; high plasticity; fine angular gravel.				0.05
		0.2	V_3160008_0.2							
		0.2	V_3160008_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering PT Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160009

Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** S SS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Clay; red brown.	D/M	St		0.00
		0.4	V_3160009_0.2							
						As above; light grey.				-0.55 0.55
		0	V_3160009_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	PSC(x)	Percussion Simultanous Casing
RT(x)	Rotary Triple Tube	AS	Augering - Solid Flight
PC(x)	Percussion Cable Tool	AH	Augering - Hollow Flight
PD(x)	Percussion Down Hole	H	Hand Augering
GP	Geoprobing	PT	Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160010
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:** SJS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL Silty Sand; Grass.	M	S		0.00 -0.05
						FILL silty Clay; dark brown; moderate plasticity.				0.05 -0.10
						Clay; reddish brown; high plasticity.		St		0.10
		0.1	V_3160010_0.2							
						As above; light grey.				-0.50 0.50
						As above; rootlets.				-0.80 0.80
		0.6	V_3160010_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:			
RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultaneous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		H	Hand Augering PT Push Tubing

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense
Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160011
Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 to: 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:**

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL silty Clay; medium brown.	M	St		0.00
										-0.15
						Clay with trace sand; red brown.				0.15
		3.4	V_3160011_0.2							
										-0.50
						Clay; light grey.				0.50
		0.7	V_3160011_1.0							
										-1.00
1.0						EOH @ 1.0m.				1.00

NOTES:

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

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

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160012
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 25/06/2011 to: 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA/RM **Checked by:** [illegible]

DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
						Ground Surface:				0.00
0.0	HA					TOPSOIL. Sandy Silt; Grass.	M	S		0.00 -0.05
						FILL silty Clay; dark brown; moderate plasticity.				0.05
		0.6	V_3160012_0.2			CLAY Reddish brown; high plasticity.		St		-0.20 0.20
		0.2	V_3160012_1.0							-1.00
1.0						EOH @ 1.0m.				1.00

NOTES:

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

Drilling Abbreviations:			
RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		H	Hand Augering PT Push Tubing

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160013

Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 to: 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** SS

DRILLING						LITHOLOGICAL DESCRIPTION			COMMENTS/	
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL silty Clay; dark brown.	M	St		0.00
										-0.15
		1	V_3160013_0.2			Clay with trace sand; medium brown.	D/M			0.15
										-0.30
						Clay; grey.		VSt		0.30
		0.1	V_3160013_1.0							-1.00
1.0						EOH @ 1.0m.				1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering PT Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160014

Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:** S SS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL Sandy Silt; brown; Grass.	M	S		0.00 -0.05
						FILL silty Clay; dark brown; moderate plasticity.				0.05 -0.15
		1.6	V_3160014_0.2			Clay; light grey; high plasticity.		St		0.15
		2.4	V_3160014_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering PT Push Tubing

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

Moisture:

D	Dry
D/M	Dry - Moist
M	Moist
M/W	Moist - Wet
W	Wet

Consistency:

Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160018
Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 to: 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** [illegible]

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Clay with trace gravel; medium brown; fine to coarse angular gravel.	M	F		0.00
		0.4	V_3160018_0.2 V_QA3 V_QA4							-0.30
						As above; mottled dark brown and light grey.		St		0.30
						Scoria; dark red brown; ~15 mm diameter gravel.		D		-0.65 0.65
		0.9	V_3160018_1.0			Clay with gravel (scoria); light grey brown.		St		-0.90 0.90
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering
		PT	Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160019
Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: RM **Checked by:** S SS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Clay with trace sand; medium brown; medium to coarse grained sand.	M	St		0.00
		4.6	V_3160019_0.2							
										-0.80
						Gravel with clay; medium brown; angular gravel.		L/MD		0.80
		0.4	V_3160019_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:			
RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		H	Hand Augering FT Push Tubing

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense
Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160020
Page: 1 of 1

Client: EPA Victoria
Project: Caimlea Validation Sampling
Project No.: 3127640
Location: Caimlea
Date Drilled: 25/06/2011 **to:** 25/06/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:** SS

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					TOPSOIL Sandy Silt; brown; Grass surface.	M	S		0.00 -0.05
						FILL Clay; dark brown; moderate plasticity.				0.05
		0	V_3160020_0.2							
										-0.40
						As above; light brown.		St		0.40
										-0.80
						As above; light grey.				0.80
		0.1	V_3160020_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering PT Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160021

Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA Checked by: S 33

DRILLING					Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water						
						Ground Surface:				0.00
0.0	HA					TOPSOIL Silty Sand; dark brown; Grass surface.	M	St		0.00 -0.05
						FILL Clay; dark brown; moderate plasticity.				0.05
		0.1	V_3160021_0.2 V_QA1 V_QA2							-0.30
						Clay with gravel; dark brown; coarse angular gravel.				0.30 -0.60
						CLAY Light grey with mottled dark brown.				0.60 -0.80
						Light grey.				0.80
		0	V_3160021_1.0							-1.00
1.0						EOH @ 1.0m.				1.00

NOTES:

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

Drilling Abbreviations:

RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
		H	Hand Augering
		PT	Push Tubing

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

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense

Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

BOREHOLE LOG

ENVIRONMENTAL - SOIL BORE

Bore No.: V_3160022

Page: 1 of 1

Client: EPA Victoria
Project: Cairnlea Validation Sampling
Project No.: 3127640
Location: Cairnlea
Date Drilled: 24/05/2011 to: 24/05/2011

Drill Co: GHD
Driller: RM/TS-A
Rig Type: Hand Auger
Total Depth (m): 1
Diameter (mm): 50

Easting:
Northing:
Grid Ref: GDA94_MGA_zone_55
Elevation: 0
Logged by: TSA **Checked by:** S 3S

DRILLING										
Depth (m)	Drilling Method	PID (ppm)	Sample ID	Water	Graphic Log	LITHOLOGICAL DESCRIPTION Soil Type (Classification Group Symbol); Particle Size; Colour; Secondary / Minor Components.	Moisture	Consistency	COMMENTS/ CONTAMINANT INDICATORS Odours, staining, waste materials, separate phase liquids, imported fill, ash.	Elevation / Depth (m)
						Ground Surface:				0.00
0.0	HA					FILL Pea gravel; light grey.	M	St		0.00 -0.05
						Clay; light grey with mottled dark brown; high plasticity.				0.05
		0.2	V_3160022_0.2							
										-0.70
						As above; light grey.				0.70
		0.7	V_3160022_1.0							
1.0						EOH @ 1.0m.				-1.00 1.00

NOTES:

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

Drilling Abbreviations:			
RW(x)	Rotary Wash	GP	Geoprobing
RT(x)	Rotary Triple Tube	PSC(x)	Percussion Simultanous Casing
PC(x)	Percussion Cable Tool	AS	Augering - Solid Flight
PD(x)	Percussion Down Hole	AH	Augering - Hollow Flight
Where "x" is flushing medium: (W) Water, (M) Mud, (A) Air, (F) Foam.		H	Hand Augering PT Push Tubing

Moisture:
D Dry
D/M Dry - Moist
M Moist
M/W Moist - Wet
W Wet

Consistency:
Granular Soils
(VL) Very Loose (MD) Medium Dense (L) Loose (D) Dense (VD) Very Dense
Cohesive Soils
(VS) Very Soft (S) Soft (F) Firm (ST) Stiff (H) Hard

Appendix C

Tabulated Results

Table 1 – Soil Results

Table 2 – Soil RPDs

Table 3 – Trip Blank and Rinsate Blank Results

Table 1 - Soil Analytical Results

Sample ID	V_3160001_0.2	V_3160001_0.7	V_3160002_0.2	V_3160002_1.0	V_3160003_0.2	V_3160003_1.0	V_3160004_0.2	V_3160004_1.0	V_3160005_0.2	V_3160005_1.0	V_3160006_0.2	V_3160006_1.0	V_3160007_0.2	V_3160007_1.0
Location ID	V_3160001	V_3160001	V_3160002	V_3160002	V_3160003	V_3160003	V_3160004	V_3160004	V_3160005	V_3160005	V_3160006	V_3160006	V_3160007	V_3160007
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Alsion Explosives Factory Site Audit report (Coffey, 2001)														
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	N-nitrosodi-n-propylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Amino Aromatics	1-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diphenylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anilines	2-nitroaniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEX	Benzene	mg/kg	0.05	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Ethylbenzene	mg/kg	0.05	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Toluene	mg/kg	0.05	3.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Xylene (m & p)	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Xylene (o)	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Xylene Total	mg/kg	0.15	14	<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
Chlorinated Hydrocarbons	1,2-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromochloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-Dinitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,6-Trinitrotoluene (TNT)	mg/kg	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-Dinitrotoluene	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dinitrotoluene	mg/kg	0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4- & 2,6-Dinitrotoluene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Nitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	RDX	mg/kg	0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Halogenated Benzenes	4-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorotoluene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Hydrocarbons	Bromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,5-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4,6-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	tetrachlorophenols	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Herbicides	Dinoseb	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Pronamide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Trifluralin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Inorganics	Moisture Content (dried @ 103°C)	%	0.1		22	8.1	20	26	21	26	21	28	25	27	27	27	18	25
	Nitrate (as N)	mg/kg	5		<5	<5	<5	<5	<5	14	<5	<5	<5	<5	<5	<5	<5	<5
	pH (aqueous extract)	pH_Units	0.1		9.5	10	9.1	9.8	8	9.1	8.8	9	9	9.3	8.8	9.3	9.2	9.4
	Sulphate as S	mg/kg	10		14	23	72	180	370	490	43	300	13	110	24	23	380	170
Lead	Lead	mg/kg	5	300	21	<5	6.5	8.1	10	6.9	11	7.6	10	8.3	12	10	17	5.6
MAH	1,2,4-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Isopropylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Styrene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Metals	Antimony	mg/kg	10	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Arsenic	mg/kg	2	20	<2	<2	<2	4.4	<2	<2	<2	<2	<2	<2	<2	<2	<2	2.9
	Barium	mg/kg	10	1800	110	95	150	170	120	80	21	190	100	260	84	82	240	620
	Beryllium	mg/kg	2	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Boron	mg/kg	10		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Cadmium	mg/kg	0.4	3	<0.4	<0.4	<0.4	<0.4	0.7	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.5	<0.5
	Chromium (III+VI)	mg/kg	5	120	27	17	27	36	31	24	30	24	35	33	36	26	25	23
	Cobalt	mg/kg	5	50	12	12	19	13	11	9.5	11	13	11	12	13	15	8.3	7.4
	Copper	mg/kg	5	60	12	15	8.3	8.5	13	<5	7.4	<5	13	7.1	14	8.1	6.8	<5
	Manganese	mg/kg	5		570	390	220	260	230	260	180	93	230	240	250	260	190	150
	Mercury	mg/kg	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
	Molybdenum	mg/kg	10	5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Nickel	mg/kg	4	130	26	45	23	25	27	18	11	22	27	24	25	19	17	17
	Tin	mg/kg	10	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	17
	Zinc	mg/kg	5	200	82	21	13	12	31	8.6	8.9	8.3	37	12	260	9.6	15	8.7
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-Picoline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-aminobiphenyl	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Organochlorine Pesticides	4,4-DDE	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	a-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160001_0.2	V_3160001_0.7	V_3160002_0.2	V_3160002_1.0	V_3160003_0.2	V_3160003_1.0	V_3160004_0.2	V_3160004_1.0	V_3160005_0.2	V_3160005_1.0	V_3160006_0.2	V_3160006_1.0	V_3160007_0.2	V_3160007_1.0
Location ID	V_3160001	V_3160001	V_3160002	V_3160002	V_3160003	V_3160003	V_3160004	V_3160004	V_3160005	V_3160005	V_3160006	V_3160006	V_3160007	V_3160007
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)														
	b-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	d-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDD	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDT	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dieldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan I	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan II	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan sulphate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin aldehyde	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin ketone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	g-BHC (Lindane)	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor epoxide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Methoxychlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dimethylphenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dinitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	2-chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylnaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylphenol	mg/kg	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	2-nitrophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	mg/kg	0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	3-methylcholanthrene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	4-chloro-3-methylphenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	4-nitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acetophenone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a) pyrene	mg/kg	0.1	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
	Benzo(b)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g,h,i)perylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a,h)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenol	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Phenols (Total Halogenated)	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenols (Total Non Halogenated)	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Butyl benzyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diethylphthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dimethyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-butyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-octyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Solvents	Methyl Ethyl Ketone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	4-Methyl-2-pentanone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Acetone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.05	<0.05
	Allyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon disulfide	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Cyclohexanone	mg/kg	5	500	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOCs	1,2,3,4-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,3,5-Trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3,3-Dichlorobenzidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-(dimethylamino) azobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-bromophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzyl chloride	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroethoxy) methane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroisopropyl) ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,j)acridine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenzofuran	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorocyclopentadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachloroethane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160001_0.2	V_3160001_0.7	V_3160002_0.2	V_3160002_1.0	V_3160003_0.2	V_3160003_1.0	V_3160004_0.2	V_3160004_1.0	V_3160005_0.2	V_3160005_1.0	V_3160006_0.2	V_3160006_1.0	V_3160007_0.2	V_3160007_1.0
Location ID	V_3160001	V_3160001	V_3160002	V_3160002	V_3160003	V_3160003	V_3160004	V_3160004	V_3160005	V_3160005	V_3160006	V_3160006	V_3160007	V_3160007
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)														
	N-nitrosopiperidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs	1,1,1,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,3-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3-trichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,4-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dibromoethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromodichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Iodomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Table 1 - Soil Analytical Results

Sample ID	V_3160008_0.2	V_3160008_1.0	V_3160009_0.2	V_3160009_1.0	V_3160010_0.2	V_3160010_1.0	V_3160011_0.2	V_3160011_1.0	V_3160012_0.2	V_3160012_1.0	V_3160013_0.2	V_3160013_1.0	V_3160014_0.2	V_3160014_1.0
Location ID	V_3160008	V_3160008	V_3160009	V_3160009	V_3160010	V_3160010	V_3160011	V_3160011	V_3160012	V_3160012	V_3160013	V_3160013	V_3160014	V_3160014
Sample Date	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)													
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	N-nitrosodi-n-propylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Amino Aromatics	1-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diphenylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anilines	2-nitroaniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEX	Benzene	mg/kg	0.05	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Ethylbenzene	mg/kg	0.05	1.4	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Toluene	mg/kg	0.05	3.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Xylene (m & p)	mg/kg	0.1		<0.1	<0.1	0.33	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1	<0.1	<0.1
	Xylene (o)	mg/kg	0.05		<0.05	<0.05	0.24	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	<0.05	<0.05	<0.05	<0.05
	Xylene Total	mg/kg	0.15	14	<0.15	<0.15	0.57	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	0.23	<0.15	<0.15	<0.15	<0.15
Chlorinated Hydrocarbons	1,2-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromochloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-Dinitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,6-Trinitrotoluene (TNT)	mg/kg	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-Dinitrotoluene	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dinitrotoluene	mg/kg	0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-& 2,6-Dinitrotoluene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Nitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	RDX	mg/kg	0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Halogenated Benzenes	4-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorotoluene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Hydrocarbons	Bromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,5-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4,6-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	tetrachlorophenols	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Herbicides	Dinoseb	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Pronamide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Trifluralin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Inorganics	Moisture Content (dried @ 103°C)	%	0.1		23	31	22	22	23	22	26	24	15	14	15	23	26	23
	Nitrate (as N)	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	pH (aqueous extract)	pH_Units	0.1		9.3	8.9	9.6	9.5	8.5	9.2	9.2	9.3	9.5	8.7	9.6	9.4	9.4	8.9
	Sulphate as S	mg/kg	10		400	460	72	240	350	210	200	500	34	480	52	110	250	270
Lead	Lead	mg/kg	5	300	14	10	62	8.2	6.1	6.1	20	8.3	49	7	27	7.2	11	8.6
MAH	1,2,4-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Isopropylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Styrene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Metals	Antimony	mg/kg	10	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Arsenic	mg/kg	2	20	<2	<2	2.4	5	<2	<2	<2	<2	4	<2	3.3	<2	<2	<2
	Barium	mg/kg	10	1800	140	180	150	600	110	250	130	170	99	170	120	170	600	110
	Beryllium	mg/kg	2	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Boron	mg/kg	10		<10	<10	<10	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Cadmium	mg/kg	0.4	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Chromium (III+VI)	mg/kg	5	120	30	38	26	30	23	20	24	33	22	21	29	24	35	28
	Cobalt	mg/kg	5	50	11	11	12	11	9.2	8.5	10	9.2	12	11	8.7	9	15	6.6
	Copper	mg/kg	5	60	6.7	7.3	17	6.8	7.9	5.1	8.7	5.6	17	5.9	9	<5	6.6	<5
	Manganese	mg/kg	5		170	160	260	130	100	140	200	100	220	660	140	120	250	88
	Mercury	mg/kg	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
	Molybdenum	mg/kg	10	5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Nickel	mg/kg	4	130	16	21	36	20	16	14	18	14	33	18	21	12	24	11
	Tin	mg/kg	10	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Zinc	mg/kg	5	200	16	14	47	11	10	8.4	20	14	41	11	31	9.7	17	10
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-Picoline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-aminobiphenyl	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Organochlorine Pesticides	4,4-DDE	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	a-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160008_0.2	V_3160008_1.0	V_3160009_0.2	V_3160009_1.0	V_3160010_0.2	V_3160010_1.0	V_3160011_0.2	V_3160011_1.0	V_3160012_0.2	V_3160012_1.0	V_3160013_0.2	V_3160013_1.0	V_3160014_0.2	V_3160014_1.0
Location ID	V_3160008	V_3160008	V_3160009	V_3160009	V_3160010	V_3160010	V_3160011	V_3160011	V_3160012	V_3160012	V_3160013	V_3160013	V_3160014	V_3160014
Sample Date	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration (Albion Explosives Factory Site Audit report (Coffey, 2001))													
	b-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	d-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDD	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDT	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dieldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan I	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan II	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan sulphate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin aldehyde	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin ketone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	g-BHC (Lindane)	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor epoxide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Methoxychlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dimethylphenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dinitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	2-chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylnaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylphenol	mg/kg	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	2-nitrophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	mg/kg	0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	3-methylcholanthrene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	4-chloro-3-methylphenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	4-nitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acetophenone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a) pyrene	mg/kg	0.1	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
	Benzo(b)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g,h,i)perylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a,h)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenol	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Phenols (Total Halogenated)	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenols (Total Non Halogenated)	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Butyl benzyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diethylphthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dimethyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-butyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-octyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Solvents	Methyl Ethyl Ketone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	4-Methyl-2-pentanone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Acetone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Allyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon disulfide	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Cyclohexanone	mg/kg	5	500	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOCs	1,2,3,4-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,3,5-Trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3,3-Dichlorobenzidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-(dimethylamino) azobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-bromophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzyl chloride	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroethoxy) methane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroisopropyl) ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,j)acridine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenzofuran	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorocyclopentadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachloroethane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160008_0.2	V_3160008_1.0	V_3160009_0.2	V_3160009_1.0	V_3160010_0.2	V_3160010_1.0	V_3160011_0.2	V_3160011_1.0	V_3160012_0.2	V_3160012_1.0	V_3160013_0.2	V_3160013_1.0	V_3160014_0.2	V_3160014_1.0
Location ID	V_3160008	V_3160008	V_3160009	V_3160009	V_3160010	V_3160010	V_3160011	V_3160011	V_3160012	V_3160012	V_3160013	V_3160013	V_3160014	V_3160014
Sample Date	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011	25/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)														
	N-nitrosopiperidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs	1,1,1,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,3-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3-trichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,4-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dibromoethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromodichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Iodomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Table 1 - Soil Analytical Results

Sample ID	V_3160018_0.2	V_3160018_1.0	V_3160019_0.2	V_3160019_1.0	V_3160020_0.2	V_3160020_1.0	V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Location ID	V_3160018	V_3160018	V_3160019	V_3160019	V_3160020	V_3160020	V_3160021	V_3160021	V_3160022	V_3160022
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)									
Amino Aliphatics	N-nitrosodi-n-butylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	N-nitrosodi-n-propylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Amino Aromatics	1-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-naphthylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diphenylamine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Anilines	2-nitroaniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aniline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEX	Benzene	mg/kg	0.05	1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Ethylbenzene	mg/kg	0.05	1.4	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Toluene	mg/kg	0.05	3.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Xylene (m & p)	mg/kg	0.1		0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Xylene (o)	mg/kg	0.05		0.8	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Xylene Total	mg/kg	0.15	14	1.2	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15
Chlorinated Hydrocarbons	1,2-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromochloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Explosives	1,3,5-Trinitrobenzene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	1,3-Dinitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,6-Trinitrotoluene (TNT)	mg/kg	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-Dinitrotoluene	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dinitrotoluene	mg/kg	0.5	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-& 2,6-Dinitrotoluene	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	m-Nitrotoluene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Nitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	RDX	mg/kg	0.5	2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Halogenated Benzenes	4-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorotoluene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Hydrocarbons	Bromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichlorodifluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Halogenated Phenols	2,3,4,6-tetrachlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4,5-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4,6-trichlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	2,4-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,6-dichlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-chlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	tetrachlorophenols	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Herbicides	Dinoseb	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Pronamide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Trifluralin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Inorganics	Moisture Content (dried @ 103°C)	%	0.1		25	25	23	7.1	23	29	23	28	22	27
	Nitrate (as N)	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	37	9.6
	pH (aqueous extract)	pH_Units	0.1		9.4	9.8	9.6	10	9	9.4	9.4	10	9.3	9.5
	Sulphate as S	mg/kg	10		11	23	20	27	29	130	84	180	67	170
Lead	Lead	mg/kg	5	300	12	8.2	5.4	<5	16	6	8.1	8	11	7.8
MAH	1,2,4-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3,5-trimethylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Isopropylbenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Styrene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Metals	Antimony	mg/kg	10	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Arsenic	mg/kg	2	20	<2	<2	3.9	<2	<2	3.8	<2	<2	<2	<2
	Barium	mg/kg	10	1800	240	270	240	20	160	170	88	910	220	200
	Beryllium	mg/kg	2	10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
	Boron	mg/kg	10		<10	14	27	<10	<10	21	<10	27	<10	<10
	Cadmium	mg/kg	0.4	3	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	Chromium (III+VI)	mg/kg	5	120	38	38	33	6.9	30	35	21	49	35	30
	Cobalt	mg/kg	5	50	12	14	8.1	12	11	9.4	9.1	11	10	11
	Copper	mg/kg	5	60	14	12	12	22	13	12	8.1	9.1	12	7.7
	Manganese	mg/kg	5		230	270	200	420	490	500	260	220	280	300
	Mercury	mg/kg	0.1	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Molybdenum	mg/kg	10	5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Nickel	mg/kg	4	130	29	33	24	45	27	20	17	28	23	22
	Tin	mg/kg	10	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
	Zinc	mg/kg	5	200	41	23	24	28	30	26	10	14	28	9.9
Nitroaromatics	2-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-Picoline	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3-Chloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-aminobiphenyl	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachloronitrobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Organochlorine Pesticides	4,4-DDE	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	a-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Aldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160018_0.2	V_3160018_1.0	V_3160019_0.2	V_3160019_1.0	V_3160020_0.2	V_3160020_1.0	V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Location ID	V_3160018	V_3160018	V_3160019	V_3160019	V_3160020	V_3160020	V_3160021	V_3160021	V_3160022	V_3160022
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)									
	b-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	d-BHC	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDD	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	DDT	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dieldrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan I	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan II	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endosulfan sulphate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin aldehyde	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Endrin ketone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	g-BHC (Lindane)	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Heptachlor epoxide	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Methoxychlor	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dimethylphenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2,4-dinitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	2-chloronaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylnaphthalene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	2-methylphenol	mg/kg	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	2-nitrophenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	3-&4-methylphenol	mg/kg	0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
	3-methylcholanthrene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4,6-Dinitro-2-methylphenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	4-chloro-3-methylphenol	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	4-nitrophenol	mg/kg	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Acetophenone	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benz(a)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(a) pyrene	mg/kg	0.1	1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(b)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(g,h,i)perylene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Benzo(k)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Dibenz(a,h)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
	Phenol	mg/kg	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
	Phenols (Total Halogenated)	mg/kg	1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Phenols (Total Non Halogenated)	mg/kg	20		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Butyl benzyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Diethylphthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dimethyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-butyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Di-n-octyl phthalate	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Solvents	Methyl Ethyl Ketone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	4-Methyl-2-pentanone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Acetone	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Allyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon disulfide	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Cyclohexanone	mg/kg	5	500	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
SVOCs	1,2,3,4-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,3,5-Trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	3,3-Dichlorobenzidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-(dimethylamino) azobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-bromophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	4-chlorophenyl phenyl ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Benzyl chloride	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroethoxy) methane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Bis(2-chloroisopropyl) ether	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenz(a,j)acridine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Dibenzofuran	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachlorocyclopentadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Hexachloroethane	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table 1 - Soil Analytical Results

Sample ID	V_3160018_0.2	V_3160018_1.0	V_3160019_0.2	V_3160019_1.0	V_3160020_0.2	V_3160020_1.0	V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Location ID	V_3160018	V_3160018	V_3160019	V_3160019	V_3160020	V_3160020	V_3160021	V_3160021	V_3160022	V_3160022
Sample Date	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011	24/05/2011

Chem_Group	ChemName	Units	EQL	Class 1 Maximum Concentration Albion Explosives Factory Site Audit report (Coffey, 2001)									
	N-nitrosopiperidine	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Pentachlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
VOCs	1,1,1,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,1-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2,2-tetrachloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1,2-trichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,1-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,3-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2,3-trichloropropane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2,4-trichlorobenzene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	1,2-dibromoethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,2-dichloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,3-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	1,4-dichlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromodichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Bromoform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Carbon tetrachloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorobenzene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chlorodibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Chloroform	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	cis-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dibromomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Dichloromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Hexachlorobutadiene	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	Iodomethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Tetrachloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,2-dichloroethene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	trans-1,3-dichloropropene	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Trichlorofluoromethane	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	Vinyl chloride	mg/kg	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Table 2 - Soil RPD Results

Sample ID	V_3160021_0.2	V_QA1	RPD	V_3160018_0.2	V_QA3	RPD	V_3160021_0.2	V_QA2	RPD	V_3160018_0.2	V_QA4	RPD
Sample Type	Primary	Blind		Primary	Blind		Primary	Split		Primary	Split	
Laboratory Report	300376	300376		300376	300376		300376	Interlab_D		300376	EM11055107	
Sample Date	24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011	
Chem_Group / ChemName / Units / EQL												
Amino Aliphatics / N-nitrosodi-n-butylamine / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
N-nitrosodi-n-propylamine / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Amino Aromatics / 1-naphthylamine / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
2-naphthylamine / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
Diphenylamine / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
Anilines / 2-nitroaniline / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Aniline / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
BTEX / Benzene / mg/kg / 0.05 (Primary); 0.2 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.2	-	<0.05	<0.2	-
Ethylbenzene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	0.11	<0.05	75	<0.05	<0.5	-	0.11	<0.5	-
Toluene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Xylene (m & p) / mg/kg / 0.1 (Primary); 0.5 (Interlab)	<0.1	<0.1	-	0.6	<0.1	143	<0.1	<0.5	-	0.6	<0.5	18
Xylene (o) / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	0.6	<0.05	169	<0.05	<0.5	-	0.6	<0.5	18
Xylene Total / mg/kg / 0.15	<0.15	<0.15	-	1.2	<0.15	156	<0.15			1.2		
Chlorinated Hydrocarbons / 1,2-dichloropropane / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
1,3-dichloropropane / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Bromochloromethane / mg/kg / 0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05			<0.05		
Chloromethane / mg/kg / 0.05 (Primary); 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
Explosives / 1,3,5-Trinitrobenzene / mg/kg / 1 (Primary); 0.5 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.1	-	<1.0	<0.1	-
1,3-Dinitrobenzene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
2,4,6-Trinitrotoluene (TNT) / mg/kg / 1 (Primary); 0.1 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.1	-	<1.0	<0.1	-
2,4-Dinitrotoluene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
2,6-dinitrotoluene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
2,4- & 2,6-Dinitrotoluene / mg/kg / 1	<1.0	<1.0	-	<1.0	<1.0	-	<1.0			<1.0		
2-Nitrotoluene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
4-Nitrotoluene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
m-Nitrotoluene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
Nitrobenzene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
Nitrobenzene / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
RDX / mg/kg / 0.5 (Primary); 0.1 (Interlab)	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.1	-	<0.5	<0.1	-
Halogenated Benzenes / 4-Chloronitrobenzene / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
4-chlorotoluene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Bromobenzene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Halogenated Hydrocarbons / Bromomethane / mg/kg / 0.05 (Primary); 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
Dichlorodifluoromethane / mg/kg / 0.05 (Primary); 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
Halogenated Phenols / 2,3,4,6-tetrachlorophenol / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
2,4,5-trichlorophenol / mg/kg / 1 (Primary); 0.5 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.5	-	<1.0	<0.5	-
2,4,6-trichlorophenol / mg/kg / 1 (Primary); 0.5 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.5	-	<1.0	<0.5	-
2,4-dichlorophenol / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
2,6-dichlorophenol / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
2-chlorophenol / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Pentachlorophenol / mg/kg / 1	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<1.0	-
tetrachlorophenols / mg/kg / 5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0			<5.0		
Herbicides / Dinoseb / mg/kg / 20	<20.0	<20.0	-	<20.0	<20.0	-	<20.0			<20.0		
Pronamide / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Trifluralin / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
Inorganics / Moisture Content (dried @ 103°C) / % / 0.1	23.0	24.0	4	25.0	21.0	17	23.0			25.0		
Nitrate (as N) / mg/kg / 5 (Primary); 0.1 (Interlab)	<5.0	<5.0	-	<5.0	<5.0	-	<5.0	2.7	-	<5.0	1.0	-
pH (aqueous extract) / pH_Units / 0.1	9.4	9.2	2	9.4	9.5	1	9.4			9.4		
Sulphate as S / mg/kg / 10	64.0	31.0	69	11.0	15.0	31	64.0			11.0		
Lead / Lead / mg/kg / 5	8.1	13.0	46	12.0	7.9	41	8.1	13.0	46	12.0	13.0	8
MAH / 1,2,4-trimethylbenzene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
1,3,5-trimethylbenzene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Isopropylbenzene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Styrene / mg/kg / 0.05 (Primary); 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
Metals / Antimony / mg/kg / 10 (Primary); 5 (Interlab)	<10.0	<10.0	-	<10.0	<10.0	-	<10.0	<5.0	-	<10.0	<5.0	-
Arsenic / mg/kg / 2 (Primary); 5 (Interlab)	<2.0	<2.0	-	<2.0	<2.0	-	<2.0	<5.0	-	<2.0	<5.0	-
Barium / mg/kg / 10	88.0	110.0	22	240.0	130.0	59	88.0	200.0	78	240.0	350.0	37
Beryllium / mg/kg / 2 (Primary); 1 (Interlab)	<2.0	<2.0	-	<2.0	<2.0	-	<2.0	1.0	-	<2.0	1.0	-
Boron / mg/kg / 10 (Primary); 50 (Interlab)	<10.0	<10.0	-	<10.0	<10.0	-	<10.0	60.0	143	<10.0	50.0	133
Cadmium / mg/kg / 0.4 (Primary); 1 (Interlab)	<0.4	<0.4	-	<0.4	<0.4	-	<0.4	<1.0	-	<0.4	<1.0	-
Chromium (III+VI) / mg/kg / 5 (Primary); 2 (Interlab)	21.0	31.0	38	38.0	32.0	17	21.0	32.0	42	38.0	36.0	5
Cobalt / mg/kg / 5 (Primary); 2 (Interlab)	9.1	11.0	19	12.0	12.0	0	9.1	14.0	42	12.0	16.0	29
Copper / mg/kg / 5	8.1	9.8	19	14.0	13.0	7	8.1	13.0	46	14.0	15.0	7
Manganese / mg/kg / 5	260.0	250.0	0	230.0	530.0	79	260.0	307.0	17	230.0	480.0	70
Mercury / mg/kg / 0.1	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-
Molybdenum / mg/kg / 10 (Primary); 2 (Interlab)	<10.0	<10.0	-	<10.0	<10.0	-	<10.0	<2.0	-	<10.0	<2.0	-
Nickel / mg/kg / 4 (Primary); 2 (Interlab)	17.0	20.0	16	29.0	28.0	4	17.0	23.0	30	29.0	32.0	10
Tin / mg/kg / 10 (Primary); 5 (Interlab)	<10.0	<10.0	-	<10.0	<10.0	-	<10.0	<5.0	-	<10.0	<5.0	-
Zinc / mg/kg / 5	10.0	15.0	40	41.0	23.0	56	10.0	23.0	79	41.0	35.0	16
Nitroaromatics / 2-Chloronitrobenzene / mg/kg / 0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		

Table 2 - Soil RPD Results

			Sample ID	V_3160021_0.2	V_QA1	RPD	V_3160018_0.2	V_QA3	RPD	V_3160021_0.2	V_QA2	RPD	V_3160018_0.2	V_QA4	RPD
			Sample Type	Primary	Blind		Primary	Blind		Primary	Split		Primary	Split	
			Laboratory Report	300376	300376		300376	300376		300376	Interlab_D		300376	EM1105107	
			Sample Date	24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011	
	2-Picoline	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	3-Chloronitrobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	4-aminobiphenyl	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Pentachloronitrobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	a-BHC	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Aldrin	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	b-BHC	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	d-BHC	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	DDD	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	DDT	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Dieldrin	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Endosulfan I	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Endosulfan II	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Endosulfan sulphate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Endrin	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Endrin aldehyde	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	Endrin ketone	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	g-BHC (Lindane)	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Heptachlor	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Heptachlor epoxide	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Hexachlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Methoxychlor	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
PAH	7,12-dimethylbenz(a)anthracene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
PAH/Phenols	1-Chloronaphthalene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	2,4-dimethylphenol	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	2,4-dinitrophenol	mg/kg	5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0			<5.0		
	2-chloronaphthalene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	2-methylnaphthalene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	2-methylphenol	mg/kg	0.2 (Primary): 0.5 (Interlab)	<0.2	<0.2	-	<0.2	<0.2	-	<0.2	<0.5	-	<0.2	<0.5	-
	2-nitrophenol	mg/kg	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.5	-	<1.0	<0.5	-
	3-&4-methylphenol	mg/kg	0.4 (Primary): 0.5 (Interlab)	<0.4	<0.4	-	<0.4	<0.4	-	<0.4	<0.5	-	<0.4	<0.5	-
	3-methylcholanthrene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	4,6-Dinitro-2-methylphenol	mg/kg	5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0			<5.0		
	4-chloro-3-methylphenol	mg/kg	1 (Primary): 0.5 (Interlab)	<1.0	<1.0	-	<1.0	<1.0	-	<1.0	<0.5	-	<1.0	<0.5	-
	4-nitrophenol	mg/kg	5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0			<5.0		
	Acenaphthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Acenaphthylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Acetophenone	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Benz(a)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Benzo(a) pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Benzo(b)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1	-	<0.1			<0.1		
	Benzo(g,h,i)perylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	<0.1	<0.1	-	<0.1			<0.1		
	Chrysene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Dibenz(a,h)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Fluorene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Naphthalene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Phenanthrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
	Phenol	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	-	<0.1	<0.1	-	<0.1	<0.5	-	<0.1	<0.5	-
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	mg/kg	20	<20.0	<20.0	-	<20.0	<20.0	-	<20.0			<20.0		
	Phenols (Total Halogenated)	mg/kg	1	<1.0	<1.0	-	<1.0	<1.0	-	<1.0			<1.0		
	Phenols (Total Non Halogenated)	mg/kg	20	<20.0	<20.0	-	<20.0	<20.0	-	<20.0			<20.0		
Phthalates	Bis(2-ethylhexyl) phthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Butyl benzyl phthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Diethylphthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Dimethyl phthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Di-n-butyl phthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Di-n-octyl phthalate	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
Solvents	Methyl Ethyl Ketone	mg/kg	0.05 (Primary): 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
	4-Methyl-2-pentanone	mg/kg	0.05 (Primary): 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
	Acetone	mg/kg	0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05			<0.05		
	Allyl chloride	mg/kg	0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05			<0.05		
	Carbon disulfide	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Cyclohexanone	mg/kg	5	<5.0	<5.0	-	<5.0	<5.0	-	<5.0			<5.0		
SVOCs	1,2,3,4-tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	1,2,3,5-Tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	1,2,4,5-tetrachlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	1,3,5-Trichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	3,3-Dichlorobenzidine	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	4-(dimethylamino) azobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	4-bromophenyl phenyl ether	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	4-chlorophenyl phenyl ether	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Benzyl chloride	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		

Table 2 - Soil RPD Results

				Sample ID	V_3160021_0.2	V_QA1	RPD	V_3160018_0.2	V_QA3	RPD	V_3160021_0.2	V_QA2	RPD	V_3160018_0.2	V_QA4	RPD
				Sample Type	Primary	Blind		Primary	Blind		Primary	Split		Primary	Split	
				Laboratory Report	300376	300376		300376	300376		300376	Interlab_D		300376	EM11055107	
				Sample Date	24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011		24/05/2011	24/05/2011	
	Bis(2-chloroethoxy) methane	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Bis(2-chloroisopropyl) ether	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Dibenz(a,j)acridine	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5			<0.5		
	Dibenzofuran	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Hexachlorocyclopentadiene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Hexachloroethane	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	N-nitrosopiperidine	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Pentachlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
VOCs	1,1,1,2-tetrachloroethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,1,1-trichloroethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,1,2,2-tetrachloroethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,1,2-trichloroethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,1-dichloroethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,1-dichloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,2,3-trichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	1,2,3-trichloropropane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,2,4-trichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	1,2-dibromoethane	mg/kg	0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05			<0.05		
	1,2-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	1,2-dichloropenzene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,2-dichloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,3-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	1,3-dichlorobenzene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	1,4-dichlorobenzene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	1,4-dichlorobenzene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Bromodichloromethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Bromoform	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Carbon tetrachloride	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Chlorobenzene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Chlorodibromomethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Chloroethane	mg/kg	0.05 (Primary): 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
	Chloroform	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	cis-1,2-dichloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	cis-1,3-dichloropropene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Dibromomethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Dichloromethane	mg/kg	0.05	<0.05	<0.05	-	<0.05	<0.05	-	<0.05			<0.05		
	Hexachlorobutadiene	mg/kg	0.5	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-	<0.5	<0.5	-
	Iodomethane	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Trichloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Tetrachloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	trans-1,2-dichloroethene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	trans-1,3-dichloropropene	mg/kg	0.05 (Primary): 0.5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<0.5	-	<0.05	<0.5	-
	Trichlorofluoromethane	mg/kg	0.05 (Primary): 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-
	Vinyl chloride	mg/kg	0.05 (Primary): 5 (Interlab)	<0.05	<0.05	-	<0.05	<0.05	-	<0.05	<5.0	-	<0.05	<5.0	-

*RPDs have only been considered where a concentration is greater than 10 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (5-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Table 3 - Tabulated Results
Rinsate Blanks and Trip Blanks

Laboratory Report		300376	300644	300376	300644
Sample ID		V_RB1	V_RB2	V_TB1	V_TB2
Sample Date		24/05/2011	25/05/2011	24/05/2011	25/05/2011
Sample Type		Rinsate	Rinsate	Trip Blank	Trip Blank
Chem_Group	ChemName	Units	EQL				
Amino Aliphatics	N-nitrosodi-n-butylamine	µg/l	5	<5	<5		<5
	N-nitrosodi-n-propylamine	µg/l	5	<5	<5		<5
Amino Aromatics	1-naphthylamine	µg/l	5	<5	<5		<5
	2-naphthylamine	µg/l	5	<5	<5		<5
	Diphenylamine	µg/l	5	<5	<5		<5
Anilines	2-nitroaniline	µg/l	5	<5	<5		<5
	Aniline	µg/l	5	<5	<5		<5
BTEX	Benzene	µg/l	1	<1	<1	<1	<1
	Ethylbenzene	µg/l	1	<1	<1	<1	<1
	Toluene	µg/l	1	<1	<1	<1	<1
	Xylene (m & p)	µg/l	2	<2	<2	<2	<2
	Xylene (o)	µg/l	1	<1	<1	<1	<1
	Xylene Total	µg/l	3	<3	<3	<3	<3
Chlorinated Hydrocarbons	1,2-dichloropropane	µg/l	1	<1	<1	<1	<1
	1,3-dichloropropane	µg/l	1	<1	<1	<1	<1
	Bromochloromethane	µg/l	1	<1	<1	<1	<1
	Chloromethane	µg/l	1	<1	<1	<1	<1
Explosives	1,3,5-Trinitrobenzene	mg/l	0.05	<0.05	<0.05		
	1,3-Dinitrobenzene	mg/l	0.05	<0.05	<0.05		
	2,4,6-Trinitrotoluene (TNT)	mg/l	0.05	<0.05	<0.05		
	2,4-Dinitrotoluene	µg/l	5	<5	<5		<5
	2,6-dinitrotoluene	µg/l	5	<5	<5		<5
	2,4-& 2,6-Dinitrotoluene	mg/l	0.1	<0.1	<0.1		
	2-Nitrotoluene	µg/l	50	<50	<50		
	4-Nitrotoluene	mg/l	0.05	<0.05	<0.05		
	m-Nitrotoluene	mg/l	0.05	<0.05	<0.05		
	Nitrobenzene	µg/l	50	<50	<50		<50
	RDX	mg/l	0.05	<0.05	<0.05		
Halogenated Benzenes	4-Chloronitrobenzene	µg/l	50	<50			
	4-chlorotoluene	µg/l	1	<1	<1	<1	<1
	Bromobenzene	µg/l	1	<1	<1	<1	<1
Halogenated Hydrocarbons	Bromomethane	µg/l	1	<1	<1	<1	<1
	Dichlorodifluoromethane	µg/l	1	<1	<1	<1	<1
Halogenated Phenols	2,3,4,6-tetrachlorophenol	µg/l	10	<10	<10		<10
	2,4,5-trichlorophenol	µg/l	10	<10	<10		<10
	2,4,6-trichlorophenol	µg/l	10	<10	<10		<10
	2,4-dichlorophenol	µg/l	3	<3	<3		<3
	2,6-dichlorophenol	µg/l	3	<3	<3		<3
	2-chlorophenol	µg/l	3	<3	<3		<3
	Pentachlorophenol	µg/l	10	<10	<10		<10
	tetrachlorophenols	µg/l	30	<30	<30		<1000
Herbicides	Dinoseb	µg/l	100	<100	<100		<1000
	Pronamide	µg/l	5	<5	<5		<5
	Trifluralin	mg/l	0.005	<0.005	<0.005		<0.005
Inorganics	Nitrate (as N)	mg/l	0.02	<0.02	<0.02		
	pH (Lab)	pH Units	0.1	5.1	5.4		
	Sulphate as S	mg/l	5	<5	<5		
Lead	Lead	mg/l	0.001	<0.001			
	Lead (Filtered)	mg/l	0.001		<0.001		
MAH	1,2,4-trimethylbenzene	µg/l	1	<1	<1	<1	<1
	1,3,5-trimethylbenzene	µg/l	1	<1	<1	<1	<1
	Isopropylbenzene	µg/l	1	<1	<1	<1	<1
	Styrene	µg/l	1	<1	<1	<1	<1
Metals	Antimony	mg/l	0.005	<0.005	<0.005		
	Arsenic	mg/l	0.001	<0.001	<0.001		
	Barium	mg/l	0.02	<0.02	<0.02		
	Beryllium	mg/l	0.001	<0.001	<0.001		
	Boron	mg/l	0.05	<0.05	<0.05		
	Cadmium	mg/l	0.0002	<0.0002	<0.0002		
	Chromium (III+VI)	mg/l	0.001	<0.001	<0.001		
	Cobalt	mg/l	0.001	<0.001	<0.001		
	Copper	mg/l	0.001	<0.001	<0.001		
	Manganese	mg/l	0.005	<0.005	<0.005		
	Mercury	mg/l	0.0001	<0.0001	<0.0001		
	Molybdenum	mg/l	0.005	<0.005	<0.005		
	Nickel	mg/l	0.001	<0.001	<0.001		
	Tin	mg/l	0.005	<0.005	<0.005		
	Zinc	mg/l	0.001	<0.001	<0.001		
Nitroaromatics	2-Chloronitrobenzene	µg/l	50	<50			
	2-Picoline	µg/l	5	<5	<5		<5
	3-Chloronitrobenzene	µg/l	50	<50			
	4-aminobiphenyl	µg/l	5	<5	<5		<5
	Pentachloronitrobenzene	µg/l	5	<5	<5		<5
Organochlorine Pesticides	4,4-DDE	µg/l	5	<5	<5		<5
	a-BHC	µg/l	5	<5	<5		<5
	Aldrin	µg/l	5	<5	<5		<5
	b-BHC	µg/l	5	<5	<5		<5
	d-BHC	µg/l	5	<5	<5		<5
	DDD	µg/l	5	<5	<5		<5
	DDT	µg/l	5	<5	<5		<5
	Dieldrin	µg/l	5	<5	<5		<5
	Endosulfan I	µg/l	5	<5	<5		<5
	Endosulfan II	µg/l	5	<5	<5		<5
	Endosulfan sulphate	µg/l	5	<5	<5		<5
	Endrin	µg/l	5	<5	<5		<5
	Endrin aldehyde	µg/l	5	<5	<5		<5
	Endrin ketone	µg/l	5	<5	<5		<5
	g-BHC (Lindane)	µg/l	5	<5	<5		<5
	Heptachlor	µg/l	5	<5	<5		<5
	Heptachlor epoxide	µg/l	5	<5	<5		<5
	Hexachlorobenzene	µg/l	5	<5	<5		<5
	Methoxychlor	µg/l	5	<5	<5		<5
PAH	7,12-dimethylbenz(a)anthracene	µg/l	5	<5	<5		<5
PAH/Phenols	1-Chloronaphthalene	µg/l	5	<5	<5		<5
	2,4-dimethylphenol	µg/l	3	<3	<3		<3
	2,4-dinitrophenol	mg/l	0.03	<0.03	<0.03		<0.03
	2-chloronaphthalene	µg/l	5	<5	<5		<5
	2-methylnaphthalene	µg/l	5	<5	<5		<5
	2-methylphenol	µg/l	3	<3	<3		<3
	2-nitrophenol	µg/l	10	<10	<10		<10
	3-&4-methylphenol	µg/l	6	<6	<6		<6
	3-methylcholanthrene	µg/l	5	<5	<5		<5
	4,6-Dinitro-2-methylphenol	µg/l	30	<30	<30		<30
	4-chloro-3-methylphenol	µg/l	10	<10	<10		<10
	4-nitrophenol	µg/l	30	<30	<30		<30
	Acenaphthene	µg/l	1	<1	<1		<1

Table 3 - Tabulated Results
Rinsate Blanks and Trip Blanks

				Laboratory Report	300376	300644	300376	300644
				Sample ID	V_RB1	V_RB2	V_TB1	V_TB2
				Sample Date	24/05/2011	25/05/2011	24/05/2011	25/05/2011
				Sample Type	Rinsate	Rinsate	Trip Blank	Trip Blank
	Acenaphthylene	µg/l	1		<1	<1		<1
	Acetophenone	µg/l	5		<5	<5		<5
	Anthracene	µg/l	1		<1	<1		<1
	Benz(a)anthracene	µg/l	1		<1	<1		<1
	Benzo(a) pyrene	µg/l	1		<1	<1		<1
	Benzo(b)fluoranthene	µg/l	1		<1	<1		<1
	Benzo(g,h,i)perylene	µg/l	1		<1	<1		<1
	Benzo(k)fluoranthene	µg/l	1		<1	<1		<1
	Chrysene	µg/l	1		<1	<1		<1
	Dibenz(a,h)anthracene	µg/l	1		<1	<1		<1
	Fluoranthene	µg/l	1		<1	<1		<1
	Fluorene	µg/l	1		<1	<1		<1
	Indeno(1,2,3-c,d)pyrene	µg/l	1		<1	<1		<1
	Naphthalene	µg/l	1		<1	<1		<1
	Phenanthrene	µg/l	1		<1	<1		<1
	Phenol	µg/l	3		<3	<3		<3
	Pyrene	µg/l	1		<1	<1		<1
Phenolics	4,6-Dinitro-o-cyclohexyl phenol	µg/l	100		<100	<100		<1000
	Phenols (Total Halogenated)	mg/l	0.01		<0.01	<0.01		
	Phenols (Total Non Halogenated)	mg/l	0.1		<0.1	<0.1		
Phthalates	Bis(2-ethylhexyl) phthalate	µg/l	5		<5	<5		<5
	Butyl benzyl phthalate	µg/l	5		<5	<5		<5
	Diethylphthalate	µg/l	5		<5	<5		<5
	Dimethyl phthalate	µg/l	5		<5	<5		<5
	Di-n-butyl phthalate	µg/l	5		<5	<5		<5
	Di-n-octyl phthalate	µg/l	5		<5	<5		<5
Solvents	Methyl Ethyl Ketone	µg/l	1		<1	<1	<1	<1
	4-Methyl-2-pentanone	µg/l	1		<1	<1	<1	<1
	Acetone	mg/l	0.001		<0.001	<0.001	<0.001	<0.001
	Allyl chloride	mg/l	0.001		<0.001	<0.001	<0.001	<0.001
	Carbon disulfide	µg/l	1		<1	<1	<1	<1
	Cyclohexanone	µg/l	500		<500			
SVOCs	1,2,3,4-tetrachlorobenzene	mg/l	0.005		<0.005	<0.005		<0.005
	1,2,3,5-Tetrachlorobenzene	mg/l	0.005		<0.005	<0.005		<0.005
	1,2,4,5-tetrachlorobenzene	µg/l	5		<5	<5		<5
	1,3,5-Trichlorobenzene	µg/l	5		<5	<5		<5
	3,3-Dichlorobenzidine	µg/l	5		<5	<5		<5
	4-(dimethylamino) azobenzene	µg/l	5		<5	<5		<5
	4-bromophenyl phenyl ether	µg/l	5		<5	<5		<5
	4-chlorophenyl phenyl ether	µg/l	5		<5	<5		<5
	Benzyl chloride	mg/l	0.005		<0.005	<0.005		<0.005
	Bis(2-chloroethoxy) methane	µg/l	5		<5	<5		<5
	Bis(2-chloroisopropyl) ether	µg/l	5		<5	<5		<5
	Dibenz(a,j)acridine	mg/l	0.005		<0.005	<0.005		<0.005
	Dibenzofuran	µg/l	5		<5	<5		<5
	Hexachlorocyclopentadiene	µg/l	5		<5	<5		<5
	Hexachloroethane	µg/l	5		<5	<5		<5
	N-nitrosopiperidine	µg/l	5		<5	<5		<5
	Pentachlorobenzene	µg/l	5		<5	<5		<5
VOCs	1,1,1,2-tetrachloroethane	µg/l	1		<1	<1	<1	<1
	1,1,1-trichloroethane	µg/l	1		<1	<1	<1	<1
	1,1,2,2-tetrachloroethane	µg/l	1		<1	<1	<1	<1
	1,1,2-trichloroethane	µg/l	1		<1	<1	<1	<1
	1,1-dichloroethane	µg/l	1		<1	<1	<1	<1
	1,1-dichloroethene	µg/l	1		<1	<1	<1	<1
	1,2,3-trichlorobenzene	µg/l	5		<5	<5		<5
	1,2,3-trichloropropane	µg/l	1		<1	<1	<1	<1
	1,2,4-trichlorobenzene	µg/l	5		<5	<5		<5
	1,2-dibromoethane	µg/l	1		<1	<1	<1	<1
	1,2-dichlorobenzene	µg/l	1		<5	<5	<1	<5
	1,2-dichloroethane	µg/l	1		<1	<1	<1	<1
	1,3-dichlorobenzene	µg/l	1		<5	<5	<1	<5
	1,4-dichlorobenzene	µg/l	1		<5	<5	<1	<5
	Bromodichloromethane	µg/l	1		<1	<1	<1	<1
	Bromoform	µg/l	1		<1	<1	<1	<1
	Carbon tetrachloride	µg/l	1		<1	<1	<1	<1
	Chlorobenzene	µg/l	1		<1	<1	<1	<1
	Chlorodibromomethane	µg/l	1		<1	<1	<1	<1
	Chloroethane	µg/l	1		<1	<1	<1	<1
	Chloroform	µg/l	1		<1	<1	<1	<1
	cis-1,2-dichloroethene	µg/l	1		<1	<1	<1	<1
	cis-1,3-dichloropropene	µg/l	1		<1	<1	<1	<1
	Dibromomethane	µg/l	1		<1	<1	<1	<1
	Dichloromethane	µg/l	1		<1	<1	<1	<1
	Hexachlorobutadiene	µg/l	5		<5	<5		<5
	Iodomethane	µg/l	1		<1	<1	<1	<1
	Trichloroethene	µg/l	1		<1	<1	<1	<1
	Tetrachloroethene	µg/l	1		<1	<1	<1	<1
	trans-1,2-dichloroethene	µg/l	1		<1	<1	<1	<1
	trans-1,3-dichloropropene	µg/l	1		<1	<1	<1	<1
	Trichlorofluoromethane	µg/l	1		<1	<1	<1	<1
	Vinyl chloride	µg/l	1		<1	<1	<1	<1

Appendix D

Chain of Custody Documentation

CHAIN OF CUSTODY RECORD

GHD

GHD Melbourne
180 Lonsdale Street, Melbourne 3000
Telephone: 613 8687 8000 Facsimile: 613 8687 8111
Email: vic_enviro_labreports@ghd.com.au

GHD Geelong
Email: gexmail@ghd.com.au

GHD Morwell
Email: mwlmail@ghd.com.au

Job Number: 3127640	GHD Office: MELB
Project: CAIRNLEA VALIDATION SAMPLING	
GHD Project Manager: S 33	GHD Contact: S 33
Requested Completion Date: STANDARD	Quote No./GHD Reference

Laboratory: MGT

Address:

Laboratory Contact:

PLEASE NOTE:
Sign white copy on receipt and release of samples. Samples are to be delivered to the Laboratory Address.
On receipt of samples, the laboratory contact should sign white copy and fax to GHD Contact.
On completion of analyses please return white copy with results.
Yellow copy is retained by laboratory.
Pink copy is returned to the sampler once the courier has signed for the samples.
E-mail results to the e-mail address of the relevant GHD office and cc GHD Project Manager and GHD Contact with the GHD Job Number in the e-mail subject line.
Results to be provided in ESDAT compatibile format

Sample I.D.	Date	Time	Composite Sample	Sample Matrix S: Soil SL: Sludge W: Water A: Air GW: Groundwater	Preservative	Container Type J: soil jar B: bag V: vial G: glass bottle P: plastic bottle	Container Number	Container Volume (mL)	Analyses Required: Explosives (1)	Metals (2)	VOC - EPA 8260 List	sVOC - EPA 8270 List (3)	Speciated Phenols (3)	Nitrate	Sulphate	pH	Remarks
V_3160006_0-2	24.5.11			S	ICE	J	1		✓	✓	✓	✓	✓	✓	✓	✓	
V_3160006_1-0	"			"	"	"	"		✓	✓	✓	✓	✓	✓	✓	✓	
V_3160005_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160005_1-0									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160004_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160004_1-0									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160003_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160003_1-0									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160002_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160002_1-0									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160001_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160001_0-1									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160021_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160021_1-0									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160022_0-2									✓	✓	✓	✓	✓	✓	✓	✓	
V_3160022_1-0	"			"	"	"	"		✓	✓	✓	✓	✓	✓	✓	✓	

Sampled by: S 33	Date/Time 25.5.11 18:00 AM	Relinquished by: S 33	Date/Time 25.5.11 10:00
Received by:	Date/Time	Relinquished by:	Date/Time
Received by Courier: S 33	Date/Time 25/5/11 10:05 AM	Relinquished by:	Date/Time
Received by Lab: S 33	Date/Time 25/5/11 11:00	MGT Report # 300376	

Remarks: (1) EXPLOSIVES: RDX 2; 2,4-DNT; 1,2,6-DNT 1-3, MNT 1; TNT 1, Chloronitrobenzene 3; Cyclohexanone
(2) METALS: As, B, Ba, Cd, Cr, Co, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Sn, Zn
(3) SPECIATED PHENOLS: 2-methylphenol; 2 Chlorophenol; 4 Chloro 3 methylphenol, 2,4 Dichlorophenol, 2,4,6 Trichlorophenol, Pentachlorophenol, 2,3,4,6 Tetrachlorophenol, 2 Nitrophenol, 4 Nitrophenol

Copy (Yellow)

CHAIN OF CUSTODY RECORD

GHD

GHD Melbourne
180 Lonsdale Street, Melbourne 3000
Telephone: 613 8687 8000 Facsimile: 613 8687 8111
Email: vic_enviro_labreports@ghd.com.au

GHD Geelong
Email: gexmail@ghd.com.au

GHD Morwell
Email: mwlmail@ghd.com.au

S 33

Job Number 3127640	GHD Office MELB
Project CAIRNLEA VALIDATION SAMPLING	
GHD Project Manager S 33	GHD Contact S 33
Requested Completion Date STANDARD	Quote No./GHD Reference

Laboratory: MGT

Address:

Laboratory Contact:

PLEASE NOTE:
Sign white copy on receipt and release of samples. Samples are to be delivered to the Laboratory Address.
On receipt of samples, the laboratory contact should sign white copy and fax to GHD Contact.
On completion of analyses please return white copy with results.
Yellow copy is retained by laboratory.
Pink copy is returned to the sampler once the courier has signed for the samples.
E-mail results to the e-mail address of the relevant GHD office and cc GHD Project Manager and GHD Contact with the GHD Job Number in the e-mail subject line.
Results to be provided in ESDAT compatibile format

Sample I.D.	Date	Time	Composite Sample	Sample Matrix S: Soil SL: Sludge W: Water A: Air GW: Groundwater	Preservative	Container Type J: soil jar B: bag V: vial G: glass bottle P: plastic bottle	Container Number	Container Volume (mL)	Analyses Required: (1) Explosives	(2) Metals	VOC - EPA 8260	sVOL - EPA 8270	Speciated Phenols (3)	Nitrate	Sulphate	pH	Remarks
V_QA1	24.5.11			S	ICE	J			/	/	/	/	/	/	/	/	
V_QA2	"																PLEASE FORWARD
V_TS1	"			W	ICE	VGP					/	/					TO ALS AND COC
V_RB1	"			W	ICE	VGP			/	/	/	/	/	/	/	/	IS SIGNED ON RELINQ
V_S1600220_0.2	25.5.11			S	ICE	J			/	/	/	/	/	/	/	/	AND WHEN RELINQUISHED
V_S1600220_1.0	"			"	"	"			/	/	/	/	/	/	/	/	(BEEN TAKEN AB)
V_S1600219_0.2	"			"	"	"			/	/	/	/	/	/	/	/	
V_S1600219_1.0	"			"	"	"			/	/	/	/	/	/	/	/	
V_S1600218_0.2	"			"	"	"			/	/	/	/	/	/	/	/	
V_S1600218_1.0	"			"	"	"			/	/	/	/	/	/	/	/	
V_QA3	"			"	"	"			/	/	/	/	/	/	/	/	
V_QA4	"			"	"	"			→								FORWARD TO ALS. (BEEN TAKEN AB)

Sampled by: S 33	Date/Time 24-25/05/11 10:00	Relinquished by: S 33	Date/Time 25.5.11 10:00
Received by:	Date/Time	Relinquished by:	Date/Time
Received by Courier: S 33	Date/Time 25/5/11 10-85	Relinquished by:	Date/Time
Received by Lab: S 33	Date/Time 26/5 11AM	MGT Report # 300376	

Remarks: EXPLOSIVES (1), METALS (2) & SPECIATED PHENOLS (3) PLEASE REFER TO PAGE 1 OF 2

Enquiries

From: s 33
Sent: Wednesday, 8 June 2011 4:56 PM
To: Enquiries
Subject: FW: Cairnlea report 300376

From: s 33
Sent: Wednesday, 8 June 2011 4:54 PM
To: s 33
Subject: RE: Cairnlea report 300376

s 33

I confirm that sVOC is not to be analysed for V_TB1.

Regards,

s 33
s 33
Contamination Assessment & Remediation

GHD
T: 61 3 s 33 , s 33 E: s 33
Level 9, 180 Lonsdale Street, Melbourne VIC 3000 Australia www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

Please consider our environment before printing this email

To: s 33
Cc: s 33
Sent: 08/06/2011 04:49 PM
Subject: RE: Cairnlea report 300376

Yes s 33, we have, just need confirmation the SVOC is not to be analysed.

Kind regards,

s 33
Client Services
s 33

mgt

2-5 Kingston Town Close,
Oakleigh, VIC 3166
T:(+61) (3) 9564 7055 - F:(+61) (3) 9564 7190

From: s 33
Sent: Wednesday, 8 June 2011 4:40 PM
To: s 33
Subject: Re: Cairnlea report 300376

s 33,

Could you please analyse the trip blank V_TB1 for VOC.

Regards,

s 33
s 33
Contamination Assessment & Remediation

GHD
T: 61 3 s 33 s 33 | E: s 33
Level 9, 180 Lonsdale Street, Melbourne VIC 3000, Australia | www.ghd.com

WATER | ENERGY & RESOURCES | ENVIRONMENT | PROPERTY & BUILDINGS | TRANSPORTATION

From: s 33
To: s 33
Date: 07/06/2011 10:43 AM
Subject: Cairnlea report 300376

Hi s 33,

For sample V_TB1 both VOC and SVOC has been requested on the COC, however we only supplied trip blanks in preserved vials for VOC analysis. If you have not supplied you own trip blank in an unpreserved amber SVOC analysis is not possible. Please advise.

Kind Regards,

s 33
Client Services
s 33

mgt

2-5 Kingston Town Close,
Oakleigh, VIC 3166
T:(+61) (3) 9564 7055 - F:(+61) (3) 9564 7190

CHAIN OF CUSTODY RECORD

GHD

GHD Melbourne
180 Lonsdale Street, Melbourne 3000
Telephone: 613 8687 8000 Facsimile: 613 8687 8111
Email: vic_enviro_labreports@ghd.com.au

GHD Geelong
Email: gexmail@ghd.com.au

GHD Morwell
Email: mwlmail@ghd.com.au

Job Number: 3127640
GHD Office: MELB
Project: CAIRNLEA VALIDATION SAMPLING
GHD Project Manager: s 33
GHD Contact: s 33
Requested Completion Date:
Quote No./GHD Reference:

Laboratory: MGT
Address:
Laboratory Contact:

PLEASE NOTE:
Sign white copy on receipt and release of samples. Samples are to be delivered to the Laboratory Address.
On receipt of samples, the laboratory contact should sign white copy and fax to GHD Contact.
On completion of analyses please return white copy with results.
Yellow copy is retained by laboratory.
Pink copy is returned to the sampler once the courier has signed for the samples.
E-mail results to the e-mail address of the relevant GHD office and cc GHD Project Manager and GHD Contact with the GHD Job Number in the e-mail subject line.
Results to be provided in ESDAT compatibile format

Sample I.D.	Date	Time	Composite Sample	Sample Matrix S: Soil SL: Sludge W: Water A: Air GW: Groundwater	Preservative	Container Type J: soil jar B: bag V: vial G: glass bottle P: plastic bottle	Container Number	Container Volume (mL)	Analyses Required: Explosives (1)	Metals (2)	VOC - EPA 8260	SVOC - EPA 8270	Specified Phenols (3)	N Inorganic	Sulphate	pH	Remarks
V_3160008_0.2	25.5.11			S	ICE	J	1		✓	✓	✓	✓	✓	✓	✓	✓	s 33 - MGT Report # 300644
V_3160008_1.0																	
V_3160007_0.2																	
V_3160007_1.0																	
V_3160012_0.2																	
V_3160012_1.0																	
V_3160013_0.2																	
V_3160013_1.0																	
V_3160014_0.2																	
V_3160014_1.0																	
V_3160009_0.2																	
V_3160009_1.0																	
V_3160010_0.2																	
V_3160010_1.0																	
V_3160011_0.2																	
V_3160011_1.0																	

Sampled by:	s 33	Date/Time	25/05/11	Relinquished by:	s 33	Date/Time	25/05/11 16:30
Received by:	s 33	Date/Time	25/5 4:30	Relinquished by:	s 33	Date/Time	26/5/11 9:05 am
Received by Courier:	s 33	Date/Time	26/5 9:05 am	Relinquished by:		Date/Time	
Received by Lab:	s 33 MGT	Date/Time	26/5/11 - am				

Remarks: Explosives (1): RDX; 2,4-DNT; 1,2,6-DNT; 1,3,5-TNT; TNT; Chloronitrobenzene; Cyclohexanone
Metals (2): As, B, Ba, Be, Cd, Cr, Co, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Sn, Zn
Specified Phenols (3): Dimethylphenol; 2 Chlorophenol; 4 Chloro 3 methylphenol; 2,4 Dichlorophenol; 2,4,6 Trichlorophenol; Pentachlorophenol; 2,3,4,6 Tetrachlorophenol; 2 Nitrophenol; Phenol

CHAIN OF CUSTODY RECORD

GHD

GHD Melbourne
180 Lonsdale Street, Melbourne 3000
Telephone: 613 8687 8000 Facsimile: 613 8687 8111
Email: vic_enviro_labreports@ghd.com.au

GHD Geelong
Email: gexmail@ghd.com.au

GHD Morwell
Email: mwlmail@ghd.com.au

Job Number: 3127640	GHD Office: MELB
Project: CAIRNLEA VALIDATION SAMPLING	Laboratory: MGT
GHD Project Manager: s 33	Address:
GHD Contact: s 33	Laboratory Contact:
Requested Completion Date: STANDARD	Quote No./GHD Reference:

PLEASE NOTE:
Sign white copy on receipt and release of samples.
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Pink copy is returned to the sampler once the courier has signed for the samples.
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Results to be provided in ESDAT compatibile format

Sample I.D.	Date	Time	Composite Sample	Sample Matrix S: Soil SL: Sludge W: Water A: Air GW: Groundwater	Preservative	Container Type J: soil jar B: bag V: vial G: glass bottle P: plastic bottle	Container Number	Container Volume (mL)	Analyses Required: EXPLOSIVES (1)	METALS (2)	VOC-EPA 8260	SVOC-EPA 8270	SPECIATED PHENOLS (2)	NITRATE	SULPHATE	pH	Remarks
V_TB2	25.5.11			W	ICE	VG					/	/					
V_RB2	25.5.11			W	ICE	VGP			/	/	/	/	/	/	/	/	
																	s 33 _MGT Report # 300644

Sampled by: s 33	Date/Time 25/05/11	Relinquished by: s 33	Date/Time 25/05/11 16:30
Received by: s 33	Date/Time 25/5/11 4.30	Relinquished by: s 33	Date/Time 26/5/11 9.05
Received by Courier: s 33	Date/Time 26/5/11 9.05AM	Relinquished by:	Date/Time
Received by Lab: s 33 _MGT	Date/Time 26/5/11		

Remarks: EXPLOSIVES (1) + METALS (2) + SPECIATED PHENOLS (2) = PLEASE REFER TO SHEET 1 OF 2.

Commonwealth Statutory Declarations Act

STATUTORY DECLARATION

I, s 33, courier

of MGT-LabMark
2-5 Kingston Town Close
Oakleigh VIC 3166

DO SOLEMNLY AND SINCERELY DECLARE THAT:

1. Samples for GHD job reference number 3127640 for Cairnlea Validation Sampling were picked up by myself at 10.05am on 25/6/11 from Cairnlea and relinguished to MGT-LabMark at 11am 25/6/11. The split samples were then packed and left MGT-LabMark at 4.30pm on 25/6/11 with myself and delivered to ALS at 5pm 25/6/11.

2. Samples for GHD job reference number 3127640 for Cairnlea Validation Sampling were picked up by myself at 9.05am on 26/6/11 from Cairnlea and were relinguished to MGT-LabMark at 11am 26/6/11.

I MAKE THIS SOLEMN DECLARATION BY VIRTUE OF }
THE COMMONWEALTH STATUTORY DECLARATIONS ACT }
1959 AND SUBJECT TO THE PENALTIES PROVIDED }
BY THAT ACT FOR THE MAKING OF FALSE }
STATEMENTS IN STATUTORY DECLARATIONS }
CONSCIENTIOUSLY BELIEVING THE STATEMENTS }
CONTAINED IN THIS DECLARATION TO BE TRUE IN }
EVERY PARTICULAR. }

s 33

DECLARED AT
ON THE 22st DAY OF June 2011

BEFORE ME :

s 33

CHAIN OF CUSTODY RECORD

GHD

GHD Melbourne
180 Lonsdale Street, Melbourne 3000
Telephone: 613 8687 8000 Facsimile: 613 8687 8111
Email: vic_enviro_labreports@ghd.com.au

GHD Geelong
Email: gexmail@ghd.com.au

GHD Morwell
Email: mwlmail@ghd.com.au

Job Number	3127640
GHD Office	MELB
Project	CAIRNLEA VALIDATION SAMPLING
GHD Project Manager	S 33
GHD Contact	S 33
Requested Completion Date	STANDARD
Quote No./GHD Reference	
Laboratory:	ALS
Address:	
Laboratory Contact:	

	Sample I.D.	Date	Time	Composite Sample	Sample Matrix S: Soil SL: Sludge W: Water A: Air GW: Groundwater	Preservative	Container Type J: soil jar B: bag V: vial G: glass bottle P: plastic bottle	Number	Volume (mL)	EXPLOSIVES (1)	METALS (2)	VOC-EPA 8260 LIST	SVOC-EPA 8270 LIST	SPECIATED PHENOLS (3)	NITRATE	SULPHATE	pH	Remarks
1	V_QA2	24-5-11			S	ICE	J	1		/	/	/	/	/	/	/	/	
2	V_QA4	" "			"	"	"	"		/	/	/	/	/	/	/	/	

PLEASE NOTE:
Sign white copy on receipt and release of samples. Samples are to be delivered to the Laboratory Address.
On receipt of samples, the **laboratory contact should sign white copy** and fax to GHD Contact.
On completion of analyses please **return white copy with results.**
Yellow copy is retained by laboratory.
Pink copy is returned to the sampler once the courier has signed for the samples.
E-mail results to the e-mail address of the relevant GHD office and cc GHD Project Manager and GHD Contact with the GHD Job Number in the e-mail subject line.

Results to be provided in ESDAT compatibile format

Environmental Division
Melbourne
Work Order
EM1105517
Telephone : + 61-3-8549 9600

MCH AB
RECEIVED
11 AM. 28/5

Sampled by:	S 33	Date/Time	25-5-11 10.00 am	Relinquished by:	S 33	Date/Time	25-5-11 10:00
Received by:	S 33	Date/Time	25/5/11 10-05 AM	Relinquished by:	"	Date/Time	
Received by Courier:	S 33	Date/Time	25/5/11 16 30 PM	Relinquished by:	S 33	Date/Time	25/5/11 17-00
Received by Lab:	S 33	Date/Time	25/5 17-00				

Remarks: EXPLOSIVES (1): RDX 2; 2,4-DNT; 1,2,6-DNT 1.3; MNT 1; TNT 1; Chloronitrobenzene 3; Cyclohexanone
METALS (2): As, B, Ba, Be, Cd, Cr, Co, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Sn, Zn
SPECIATED PHENOLS (3): Dimethylphenol; 2 Chlorophenol; 4 chloro 3 methylphenol 2 4 Dichlorophenol, 246 Trichlorophenol, Pentachlorophenol, 2 3 4 6 Tetrachlorophenol, 2 Nitrophenol, 4 Nitrophenol, Phenols, Cresols (TOTAL)

Appendix E

Laboratory Reports

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

GHD Melbourne
Level 8, 180 Lonsdale St
Melbourne
Victoria 3000

Attention: S 33

NATA Accredited
Accreditation Number 1261
Site Number 1254

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

Report	300376-S-V1
Client Reference	CAIRNLEA VALIDATION SAMPLING 3127640
Received Date	May 25, 2011

Client Sample ID			V_3160006_0.2	V_3160006_1.0	V_3160005_0.2	V_3160005_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11169	M11-My11170	M11-My11171	M11-My11172
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Cyclohexanone	5	mg/kg	< 5	< 5	< 5	< 5
Nitrate (as N)	5	mg/kg	< 5	< 5	< 5	< 5
pH (1:5 Aqueous extract)	0.1	units	8.8	9.3	9.0	9.3
Sulphate (S)	10	mg/kg	24	23	13	110
% Moisture	0.1	%	27	27	25	27
Volatile Organics						
1.1-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05	[G01] < 0.25	< 0.05	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			V_3160006_0.2	V_3160006_1.0	V_3160005_0.2	V_3160005_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11169	M11-My11170	M11-My11171	M11-My11172
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Chloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Iodomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Total m+p-Xylenes	0.10	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15	< 0.15	< 0.15	< 0.15
Fluorobenzene (surr.)	1	%	125	79	73	90
4-Bromofluorobenzene (surr.)	1	%	76	75	74	80
Explosives						
1.3-DNB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-TNB	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4- & 2.6-DNT	1	mg/kg	< 1	< 1	< 1	< 1
3-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RDX	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TNT	1	mg/kg	< 1	< 1	< 1	< 1
Semivolatile Organics						
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2

Client Sample ID			V_3160006_0.2	V_3160006_1.0	V_3160005_0.2	V_3160005_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11169	M11-My11170	M11-My11171	M11-My11172
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
b-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160006_0.2	V_3160006_1.0	V_3160005_0.2	V_3160005_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11169	M11-My11170	M11-My11171	M11-My11172
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
g-BHC (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	79	79	92	83
Nitrobenzene-d5 (surr.)	1	%	70	81	76	71
2-Fluorobiphenyl (surr.)	1	%	85	98	94	86
2.4.6-Tribromophenol (surr.)	1	%	53	64	71	57
Explosives						
1-Chloro-2-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-3-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-4-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenols (Halogenated)						
Tetrachlorophenols - Total	5.0	mg/kg	< 5	< 5	< 5	< 5
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20

Client Sample ID			V_3160006_0.2	V_3160006_1.0	V_3160005_0.2	V_3160005_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11169	M11-My11170	M11-My11171	M11-My11172
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Barium	10	mg/kg	84	82	100	260
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Boron	10	mg/kg	< 10	< 10	< 10	< 10
Cobalt	5	mg/kg	13	15	11	12
Manganese	5	mg/kg	250	260	230	240
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	36	26	35	33
Copper	5	mg/kg	14	8.1	13	7.1
Lead	5	mg/kg	12	10	10	8.3
Nickel	4	mg/kg	26	19	27	24
Zinc	5	mg/kg	260	9.6	37	12

Client Sample ID			V_3160004_0.2	V_3160004_1.0	V_3160003_0.2	V_3160003_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11173	M11-My11174	M11-My11175	M11-My11176
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Cyclohexanone	5	mg/kg	< 5	< 5	< 5	< 5
Nitrate (as N)	5	mg/kg	< 5	< 5	< 5	14
pH (1:5 Aqueous extract)	0.1	units	8.8	9.0	8.0	9.1
Sulphate (S)	10	mg/kg	43	300	370	490
% Moisture	0.1	%	21	28	21	26
Volatile Organics						
1.1-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Iodomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			V_3160004_0.2	V_3160004_1.0	V_3160003_0.2	V_3160003_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11173	M11-My11174	M11-My11175	M11-My11176
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Total m+p-Xylenes	0.10	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15	< 0.15	< 0.15	< 0.15
Fluorobenzene (surr.)	1	%	82	82	80	77
4-Bromofluorobenzene (surr.)	1	%	78	79	70	70
Explosives						
1.3-DNB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-TNB	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4- & 2.6-DNT	1	mg/kg	< 1	< 1	< 1	< 1
3-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RDX	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TNT	1	mg/kg	< 1	< 1	< 1	< 1
Semivolatile Organics						
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160004_0.2	V_3160004_1.0	V_3160003_0.2	V_3160003_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11173	M11-My11174	M11-My11175	M11-My11176
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
b-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
g-BHC (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160004_0.2	V_3160004_1.0	V_3160003_0.2	V_3160003_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11173	M11-My11174	M11-My11175	M11-My11176
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	96	98	96	71
Nitrobenzene-d5 (surr.)	1	%	86	85	89	70
2-Fluorobiphenyl (surr.)	1	%	102	99	106	89
2.4.6-Tribromophenol (surr.)	1	%	74	78	84	61
Explosives						
1-Chloro-2-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-3-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-4-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenols (Halogenated)						
Tetrachlorophenols - Total	5.0	mg/kg	< 5	< 5	< 5	< 5
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Barium	10	mg/kg	21	190	120	80
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Boron	10	mg/kg	< 10	< 10	< 10	< 10
Cobalt	5	mg/kg	11	13	11	9.5
Manganese	5	mg/kg	180	93	230	260
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	0.7	< 0.4
Chromium	5	mg/kg	30	24	31	24
Copper	5	mg/kg	7.4	< 5	13	< 5
Lead	5	mg/kg	11	7.6	10	6.9

Client Sample ID			V_3160004_0.2	V_3160004_1.0	V_3160003_0.2	V_3160003_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11173	M11-My11174	M11-My11175	M11-My11176
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Nickel	4	mg/kg	11	22	27	18
Zinc	5	mg/kg	8.9	8.3	31	8.6

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Client Sample ID			V_3160002_0.2	V_3160002_1.0	V_3160001_0.2	V_3160001_0.7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11177	M11-My11178	M11-My11179	M11-My11180
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Cyclohexanone	5	mg/kg	< 5	< 5	< 5	< 5
Nitrate (as N)	5	mg/kg	< 5	< 5	< 5	< 5
pH (1:5 Aqueous extract)	0.1	units	9.1	9.8	9.5	10
Sulphate (S)	10	mg/kg	72	180	14	23
% Moisture	0.1	%	20	26	22	8.1
Volatile Organics						
1.1-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Iodomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			V_3160002_0.2	V_3160002_1.0	V_3160001_0.2	V_3160001_0.7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11177	M11-My11178	M11-My11179	M11-My11180
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Total m+p-Xylenes	0.10	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15	< 0.15	< 0.15	< 0.15
Fluorobenzene (surr.)	1	%	91	91	89	95
4-Bromofluorobenzene (surr.)	1	%	80	76	79	80
Explosives						
1.3-DNB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-TNB	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4- & 2.6-DNT	1	mg/kg	< 1	< 1	< 1	< 1
3-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RDX	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TNT	1	mg/kg	< 1	< 1	< 1	< 1
Semivolatile Organics						
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160002_0.2	V_3160002_1.0	V_3160001_0.2	V_3160001_0.7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11177	M11-My11178	M11-My11179	M11-My11180
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
b-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
g-BHC (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix mgt-LabMark Sample No. Date Sampled Test/Reference	LOR	Unit	V_3160002_0.2 Soil M11-My11177 May 24, 2011	V_3160002_1.0 Soil M11-My11178 May 24, 2011	V_3160001_0.2 Soil M11-My11179 May 24, 2011	V_3160001_0.7 Soil M11-My11180 May 24, 2011
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	93	97	96	92
Nitrobenzene-d5 (surr.)	1	%	79	84	90	79
2-Fluorobiphenyl (surr.)	1	%	92	99	108	97
2.4.6-Tribromophenol (surr.)	1	%	72	71	75	70
Explosives						
1-Chloro-2-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-3-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-4-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenols (Halogenated)						
Tetrachlorophenols - Total	5.0	mg/kg	< 5	< 5	< 5	< 5
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Barium	10	mg/kg	150	170	110	95
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Boron	10	mg/kg	< 10	< 10	< 10	< 10
Cobalt	5	mg/kg	19	13	12	12
Manganese	5	mg/kg	220	260	570	390
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2	mg/kg	< 2	4.4	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	27	36	27	17
Copper	5	mg/kg	8.3	8.5	12	15
Lead	5	mg/kg	8.5	8.1	21	< 5

Client Sample ID			V_3160002_0.2	V_3160002_1.0	V_3160001_0.2	V_3160001_0.7
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11177	M11-My11178	M11-My11179	M11-My11180
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Nickel	4	mg/kg	23	25	26	45
Zinc	5	mg/kg	13	12	62	21

mgt-LabMark 2-5 Kingston Town Close, Oakleigh, Victoria, Australia, 3166
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Client Sample ID			V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11181	M11-My11182	M11-My11183	M11-My11184
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Cyclohexanone	5	mg/kg	< 5	< 5	< 5	< 5
Nitrate (as N)	5	mg/kg	< 5	< 5	37	9.6
pH (1:5 Aqueous extract)	0.1	units	9.4	10	9.3	9.5
Sulphate (S)	10	mg/kg	64	180	67	170
% Moisture	0.1	%	23	28	22	27
Volatile Organics						
1.1-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Iodomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11181	M11-My11182	M11-My11183	M11-My11184
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Total m+p-Xylenes	0.10	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15	< 0.15	< 0.15	< 0.15
Fluorobenzene (surr.)	1	%	90	88	86	93
4-Bromofluorobenzene (surr.)	1	%	81	72	69	75
Explosives						
1.3-DNB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-TNB	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4- & 2.6-DNT	1	mg/kg	< 1	< 1	< 1	< 1
3-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RDX	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TNT	1	mg/kg	< 1	< 1	< 1	< 1
Semivolatile Organics						
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11181	M11-My11182	M11-My11183	M11-My11184
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
b-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
g-BHC (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11181	M11-My11182	M11-My11183	M11-My11184
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	95	98	94	97
Nitrobenzene-d5 (surr.)	1	%	83	79	86	83
2-Fluorobiphenyl (surr.)	1	%	98	96	99	99
2.4.6-Tribromophenol (surr.)	1	%	78	66	74	69
Explosives						
1-Chloro-2-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-3-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-4-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenols (Halogenated)						
Tetrachlorophenols - Total	5.0	mg/kg	< 5	< 5	< 5	< 5
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Barium	10	mg/kg	88	910	220	200
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Boron	10	mg/kg	< 10	27	< 10	< 10
Cobalt	5	mg/kg	9.1	11	10	11
Manganese	5	mg/kg	260	220	280	300
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2	mg/kg	< 2	< 2	< 2	< 2
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	21	49	35	30
Copper	5	mg/kg	8.1	9.1	12	7.7
Lead	5	mg/kg	8.1	8.0	11	7.8

Client Sample ID			V_3160021_0.2	V_3160021_1.0	V_3160022_0.2	V_3160022_1.0
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11181	M11-My11182	M11-My11183	M11-My11184
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Nickel	4	mg/kg	17	28	23	22
Zinc	5	mg/kg	10	14	26	9.9

Client Sample ID			V_QA1	V_3160020_0.2	V_3160020_1.0	V_3160019_0.2
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11185	M11-My11188	M11-My11189	M11-My11190
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Cyclohexanone	5	mg/kg	< 5	< 5	< 5	< 5
Nitrate (as N)	5	mg/kg	< 5	< 5	< 5	< 5
pH (1:5 Aqueous extract)	0.1	units	9.2	9.0	9.4	9.6
Sulphate (S)	10	mg/kg	31	29	130	20
% Moisture	0.1	%	24	23	29	23
Volatile Organics						
1.1-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.1.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2-Trichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.1.2.2-Tetrachloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dibromoethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.3-Trichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.2.4-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3-Dichloropropane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.3.5-Trimethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
1.4-Dichlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Butanone (MEK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
2-Propanone (Acetone)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Chlorotoluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone (MIBK)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Allyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Benzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromodichloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Bromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon disulfide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Chloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
cis-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dibromomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Iodomethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Isopropyl benzene (Cumene)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

Client Sample ID			V_QA1	V_3160020_0.2	V_3160020_1.0	V_3160019_0.2
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11185	M11-My11188	M11-My11189	M11-My11190
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Total m+p-Xylenes	0.10	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
trans-1.2-Dichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
trans-1.3-Dichloropropene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl chloride	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15	< 0.15	< 0.15	< 0.15
Fluorobenzene (surr.)	1	%	89	93	82	79
4-Bromofluorobenzene (surr.)	1	%	74	74	67	66
Explosives						
1.3-DNB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-TNB	1	mg/kg	< 1	< 1	< 1	< 1
2-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4- & 2.6-DNT	1	mg/kg	< 1	< 1	< 1	< 1
3-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
RDX	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TNT	1	mg/kg	< 1	< 1	< 1	< 1
Semivolatile Organics						
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
1-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.4-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.3.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.2.4.5-Tetrachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.3.5-Trichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chloronaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Naphthylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitroaniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2-Picoline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.3.4.6-Tetrachlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4-Dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2.4-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.4.5-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.4.6-Trichlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
2.6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
2.6-Dinitrotoluene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_QA1	V_3160020_0.2	V_3160020_1.0	V_3160019_0.2
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11185	M11-My11188	M11-My11189	M11-My11190
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
3-Methylcholanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
3.3'-Dichlorobenzidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Aminobiphenyl	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Bromophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
4-Chlorophenyl phenyl ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
4.4'-DDD	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDE	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
4.4'-DDT	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
7.12-Dimethylbenz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
a-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Acetophenone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aniline	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
b-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g.h.i)perylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Benzyl chloride	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroethoxy)methane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-chloroisopropyl)ether	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Bis(2-ethylhexyl)phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Butyl benzyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
d-BHC	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-butyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Di-n-octyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a.j)acridine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenzofuran	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dieldrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethyl phthalate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dimethylaminoazobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Diphenylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan I	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan II	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endosulfan sulphate	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin aldehyde	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Endrin ketone	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
g-BHC (Lindane)	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			V_QA1	V_3160020_0.2	V_3160020_1.0	V_3160019_0.2
Sample Matrix			Soil	Soil	Soil	Soil
mgt-LabMark Sample No.			M11-My11185	M11-My11188	M11-My11189	M11-My11190
Date Sampled			May 24, 2011	May 24, 2011	May 24, 2011	May 24, 2011
Test/Reference	LOR	Unit				
Heptachlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Heptachlor epoxide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorobutadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachlorocyclopentadiene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Hexachloroethane	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Methoxychlor	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodibutylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosodipropylamine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
N-Nitrosopiperidine	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachloronitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Phenanthrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pronamide	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Trifluralin	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenol-d6 (surr.)	1	%	87	91	98	106
Nitrobenzene-d5 (surr.)	1	%	72	82	87	93
2-Fluorobiphenyl (surr.)	1	%	82	95	100	104
2.4.6-Tribromophenol (surr.)	1	%	65	78	74	79
Explosives						
1-Chloro-2-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-3-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
1-Chloro-4-nitrobenzene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenols (Halogenated)						
Tetrachlorophenols - Total	5.0	mg/kg	< 5	< 5	< 5	< 5
Total Halogenated Phenol	1	mg/kg	< 1	< 1	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4.6-dinitrophenol	20	mg/kg	< 20	< 20	< 20	< 20
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Heavy Metals						
Antimony	10	mg/kg	< 10	< 10	< 10	< 10
Barium	10	mg/kg	110	160	170	240
Beryllium	2	mg/kg	< 2	< 2	< 2	< 2
Boron	10	mg/kg	< 10	< 10	21	27
Cobalt	5	mg/kg	11	11	9.4	8.1
Manganese	5	mg/kg	260	490	500	200
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Arsenic	2	mg/kg	< 2	< 2	3.9	3.9
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	31	30	35	33
Copper	5	mg/kg	9.8	13	12	12
Lead	5	mg/kg	13	18	6.0	5.4