

ENVIRONMENTAL REPORT

Limited Environmental Site Investigation

**280 Evans Road,
Cranbourne West VIC 3977**



Prepared for:

**Murphy Trust No. 1
C/- KLM Spatial**

130479 Evans Road/2

29th October 2013

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EXECUTIVE SUMMARY

Murphy Trust No. 1 commissioned LRP&A to undertake a Limited Environmental Site Assessment (LESA, i.e. Environmental Report) of 280 Evans Road, Cranbourne West, Victoria.

The scope of works included the following:

- Augering a total of 26 boreholes over the site according to the preliminary risk assessment results,
- Analysing 16 samples for the presence of contaminants in a NATA accredited laboratory,
- Preparing a Limited environmental site investigation report (i.e. Phase 2 environmental report) that states the findings of the investigation.

Having carried out the site investigation and associated laboratory analysis, the results were reviewed with respect to contaminant levels and beneficial uses of the site.

None of the reported analytic concentrations exceeded the Health Investigation Levels (HIL's) for industrial/commercial use. A site history search carried out by others did not reveal any previous environmental issues at the site and aerial photographs from the site showed no changes to the property use.

Therefore, the land encompassed within the site is considered suitable for the permitted Industrial and Commercial use. The land encompassed within the site can be relied upon by Murphy Trust No. 1, as being 'fit for purpose' based on the current conditions as described by the current investigation.

According to the outcome of the risk assessment performed during this investigation, no additional environmental site assessments (Phase 3 ESA) are considered necessary. Please note that this limited environmental site investigation does not constitute a "Statement of Environmental Audit". If an Environmental Audit is required in the future, additional testing and investigation may need to be undertaken.

Furthermore, LRP&A confirmed that all of the existing buildings and structures remained on site at the time of the investigation. It is recommended that further testing be considered at the location of each building once demolition has been completed.

LIMITED ENVIRONMENTAL SITE INVESTIGATION

Project

130479 Evans Road / 2

Prepared for

Murphy Trust No. 1

C/- KLM Spatial

18 Mason Street

Dandenong VIC 3175

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Prepared by

Peter Andrews

LR Pardo & Associates Pty Ltd (LRP&A)

Date

29th October 2013

COMMISSION

To carry out a Limited Environmental Site Assessment (LESA) at the property located at 280 Evans Road, Cranbourne West, Victoria, in accordance with Australian Standards AS1726¹, AS1289² and AS4482³, as requested and authorised by our Clients herewith, Murphy Trust No. 1.

This report outlines the findings and recommendations of this limited environmental site investigation.

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¹ AS1726-1993 *Geotechnical Site Investigation*, Incorporating Amendments 1 and 2 1994.

² AS1289-1997 *Methods of testing soils for engineering purposes*.

³ AS4482-2005 *Guide to the sampling and investigation of potentially contaminated soil - Non-volatile and semi-volatile compounds*.

1. INTRODUCTION

LR Pardo & Associates carried out a Limited environmental site investigation on 2nd October 2013 and 3rd October 2013 at the property located at 280 Evans Road, Cranbourne West, Victoria. During this site investigation 26 boreholes were augered. Specialised laboratory tests were carried out on 16 soil samples with the aim to investigate the presence or otherwise of any potential contaminants in the soil material.

The scope of works, as outlined in our proposal 130479 Evans Rd/2 revised 11th September 2013 included the following:

- Auger a total of 26 boreholes over the site according to the preliminary risk assessment results,
- Analyse 16 samples for the presence of potential contaminants in a NATA accredited laboratory,
- Prepare a Limited phase 2 environmental site investigation report (i.e. Phase 2 environmental report) that states the findings of the assessment.

This investigation aimed at identifying the presence or otherwise of potential contaminants and their concern to future occupants. Previously the site has been used for farming purposes. The land's intended use is for industrial/commercial development.

This report is not intended as an environmental audit and therefore does not fully comply with AS4482 Guide to the sampling and investigation of potentially contaminated soil - Non-volatile and semi-volatile compounds, with respect to the number of environmental sampling locations. A risk assessment was carried out before the site investigation to identify potential areas of concern so that the number of sampling points could be determined.

This site investigation consisted of 26 boreholes augered to a depth of 0.5m. Soil samples were taken at a depth of either 0.2m or 0.5m.

Laboratory testing was performed on samples obtained from the site at a NATA accredited laboratory.

To date LRP&A has been provided with the following documents and drawings:

- KLM Spatial Site Plan, reference no. 5959 Zones, dated 06/03/13, received 07/03/13.
- Geoaquitarads Environmental Stage 1 Preliminary Site Investigation Report, report no. RM239-M, dated 13/07/13, received 29/07/13.
- KLM Spatial Plan of Survey, reference no. 5959DE1, dated 04/03/13, received 09/09/13.
- Geoaquitarads Environmental Stage 1 Preliminary Site Investigation Report, report no. RM239-M, dated 27/08/13, received 12/09/13.
- MGT laboratory testing reports for Short EPA screens, report no. 395133-S, dated 13/10/2013, received 13/10/2013.

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2. GENERAL INFORMATION

2.1 Site Description

The important features of the site are summarised in Table 1 below.

Table 1: General site information

Site Address	280, Evans Road, Cranbourne West VIC 3977
Site Area	24.5ha
Title Identification Details	Lot 4 PS 546430
Current Zoning	UGZ1 (Urban growth 1)
Local Government Area	City of Casey
Most Recent Site Use	Farming

2.2 Topography

Please refer to Geoaquitards Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

2.3 Proposed Development

This investigation was conducted as part of the requirements to satisfy the City of Casey Planning Schemes as part of the submission of a planning permit application. It is anticipated that this parcel of land will become part of the Cranbourne West Precinct Structure Plan once developed. This possible development will most likely contain warehouses, roads and associated car parks.

2.4 Adjoining Land Uses

Please refer to Geoaquitards Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

2.5 Geology

Please refer to Geoaquitards Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

Augering uncovered the geology described in the Geoaquitards Environmental report, namely; Unnamed swamp and lake deposits, and Baxter Sandstone. Please see the borehole logs presented in Appendix A for further details.

2.6 Existing Borehole Search

Please refer to Geoaquitarads Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

2.7 Groundwater

Please refer to Geoaquitarads Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E, for background information relating to groundwater.

Groundwater testing for potential contaminants is detailed in LRP&A report no. 130479 Evans Rd/3. Please refer to this report for any matters related to the contamination of groundwater on the site.

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3. SITE HISTORY AND CONTAMINANTS OF POTENTIAL CONCERN

3.1 Historical Information Review

Please refer to Geoaquitards Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

3.2 Aerial Photographs

Please refer to Geoaquitards Environmental report no. RM239-M, dated 27/08/13, reproduced in Appendix E.

3.3 Contaminants of Potential Concern (COPC)

Potential contaminants associated with previous site uses were considered to include:

- Heavy Metals,
- Total Recoverable Hydrocarbons (TRH),
- Benzene, Toluene, Ethyl benzene and Total Xylenes (BTEX),
- Polycyclic Aromatic Hydrocarbons (PAH),
- Organochlorine (OC) and Organophosphate (OP) pesticides, and
- Asbestos Containing Materials.

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4. LIMITED ENVIRONMENTAL SITE INVESTIGATION WORKS

4.1 General

Soils were assessed for both past and present signs of contamination. All of the environmental sampling bores were excavated using hand augers and shovels.

4.1.1 Field Observations

The site cover consisted predominantly of grass underlain by natural soil. The topography was flat. The soil surface was waterlogged in the northern third of the site during the investigation; this meant that the surface was soft in this area. Some fill was observed in the North West corner of the site, and to the North West of the entrance driveway. This second area of fill has not been identified previously.

4.1.2 Soil Sampling Methodology and Field Validation

Soil sampling locations were based primarily on AS 4482.1 and a preliminary risk assessment. Based on the assumption that the land has only been used for farming purposes and taking into account observations made from aerial photographs and a site walkover by Geoaquitards Environmental, the area was considered to have a low likelihood of containing potential contaminants; and therefore, sampling was reduced to 26 sampling points for the purpose of the preliminary investigation.

Sampling locations were coded before the investigation and sampling depths determined. Samples of the natural soil were taken at an approximate depth of 0.2m and 0.5m in a general grid formation.

Whilst sampling on site all precautions were taken to avoid cross contamination and contact with human skin. The sampling protocol followed at each sampling location is detailed below:

1. Wash clean sampling tools with tap water and mild detergent.
2. Use a set of new sterilised gloves each time.
3. Dig down to prescribed depth.
4. Use clean sampling tool to collect the required soil.
5. Fill pre-sterilised sampling jars.
6. Fasten lid (air-tight) and store in Esky with iced cooler blocks.
7. Deliver to analytical laboratory.

Sample storage was provided by Eurofins MGT, which consisted of sterilised glass jars, Esky's and ice blocks. All soil samples were stored on ice while on site, and during transit. Samples were tested within the specified holding times identified in AS 4482.1.

Composite Short EPA screening was conducted on some of the samples. Samples in different locations were kept separate. Table 2 shows the samples used in each composite test. Please refer to Appendix A for an aerial photo of their origin. Locations with a higher risk of contamination had Short EPA Screen testing carried out on individual soil samples as shown below. Duplicate samples were taken at each site so that re-testing of contaminated composite samples due could take place if required.

Table 2: Composite EPA screening guide

Test ID	Sample ID.
C1	BH10*, BH11, BH12, BH14
C2	BH21*, BH22, BH23, BH25
C3	BH24*, BH26
C4	BH8*, BH9
C5/BH1	BH1
C6/BH4	BH4
C7	BH13*, BH16
C8/BH15	BH15
C9/BH17	BH17
C10/BH18	BH18
C11/BH19	BH19
C12/BH20	BH20
C13/BH2	BH2
C14/BH5	BH5
C15	BH3*, BH6
C16/BH7	BH7

*Indicates representative volatile samples

The act of combining samples to perform a composite EPA screen reduces the possible concentration of contaminants. This was accounted for by dividing the HIL's by the number of samples in the composite EPA screen.

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4.2 Regulatory Framework

4.2.1 Regulatory Framework for Soil Assessment

The State Environmental Protection Policy (Prevention and Management of Contamination of Land - Land SEPP) states the regulatory framework for the prevention and management of contaminated land, and applies to all land within the state of Victoria.

The goal of this policy is to "maintain and where appropriate and practicable improve the condition of the land environment sufficient to protect current and future beneficial land uses of land from the detrimental effects of contamination." Protected beneficial uses of land are summarised below in Table 3.

Table 3: Protected beneficial uses of land⁴

Beneficial Uses	Parks & Reserves	Agriculture	Sensitive Use		Recreation/ Open Space	Commercial	Industrial
			High Density	Other			
Maintenance of Ecosystems							
Natural Ecosystems							
Modified Ecosystems							
Highly Modified Ecosystems							
Human Health							
Buildings and Structures							
Aesthetics							
Production of Food, Flora & Fibre							

The Environmental Protection Authority (EPA) considers soils to be polluted when any current or future beneficial land uses for the relevant land use category are impeded. For example, using Table 3 above, if the land is currently used for agriculture and it is assessed and considered to not be able to support buildings and structures, then the EPA would consider this land to be polluted. This can happen due to increased levels of sulfate or other chemicals which are known to weaken concrete structures.

⁴ Victorian Government Gazette, No. S 95 Tuesday 4th June 2002, Environmental Protection Act 1970, *State Environmental Protection Policy (Prevention and Management of Contamination of Land)*

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4.2.2 Human Health

The protection of the beneficial use "human health" is assessed with reference to the NEPM guidelines⁵. These guidelines provide for a range of site uses including;

- Exposure setting A – Residential with garden/accessible soil (home grown produce <10% fruit and vegetable intake (no poultry), also includes childcare centres, preschools and primary schools.
- Exposure setting B - Residential with minimal opportunities for soil access; includes dwellings with fully and permanently paved yard space such as high-rise buildings and apartments.
- Exposure setting C - Public open space such as parks, playgrounds, playing fields (e.g. ovals), secondary schools and footpaths. This does not include undeveloped public open space where the potential for exposure is lower and where a site-specific assessment may be more appropriate.
- Exposure setting D - Commercial/industrial, includes premises such as shops, offices, factories and industrial sites.

It is emphasised within the NEPM that HILs are not intended for use as default trigger or remediation target criteria, but are intended to prompt an appropriate site specific assessment when they are exceeded. However, it is considered reasonable in the first instance to use these investigation limits as default acceptance criteria, and only consider impacts more closely if they are exceeded.

4.2.3 Buildings and Structures

The Land SEPP states that "contamination must not cause the land to be corrosive to or adversely affect the integrity of structures or building materials". In the part of Victoria where the site is located, ground conditions are not considered likely to present any threat to buildings and structures, this aspect can be assessed from field observations (i.e. condition of concrete and soil) and analytical results (i.e. pH, salinity). Field observations and analytical results can be used to assess any extreme conditions (such as acidity) that might undermine structures/buildings. Please note that a determination as to whether soils are potentially corrosive to and/or are likely to adversely affect the integrity of structures or building materials on site is outside the scope of this investigation.

⁵ NEPM, 1999 & 2013

4.2.4 Aesthetics

The Land SEPP states that “contamination must not cause the land to be offensive to the senses of human beings”. Currently, there are no concentration based aesthetic criteria for soil. While aesthetic observations are subjective, it is considered that if there is discolouration, noticeable odour from the soil on the site or if there are obvious components of waste, such as rubble, slag, bagged waste or similar, then there is a potential aesthetic concern. Aesthetic observations made in the field are documented in the discussion below.

It should be noted that a complete assessment of all relevant beneficial uses was outside the scope of this investigation. This investigation's primary focus was on whether the presence of any identified contamination at the site precludes the beneficial uses of human health, as this will directly affect the next use of the site. The adopted criterion for this investigation is the exposure setting 'D'. Please see Table 4 for the investigation levels of all HILs exposure settings. For more information please see Appendix B.

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Table 4: Health-based investigation levels⁶

Chemical	Health-based investigation levels (mg/kg)			
	Residential ¹ A	Residential ¹ B	Recreational ¹ C	Commercial/ Industrial ¹ D
Metals and Inorganics				
Arsenic ²	100	500	300	3 000
Beryllium	60	90	90	500
Boron	4500	40 000	20 000	300 000
Cadmium	20	150	90	900
Chromium (VI)	100	500	300	3600
Cobalt	100	600	300	4000
Copper	6000	30 000	17 000	240 000
Lead ³	300	1200	600	1 500
Manganese	3800	14 000	19 000	60 000
Mercury (inorganic) ⁵	40	120	80	730
Methyl mercury ⁴	10	30	13	180
Nickel	400	1200	1200	6 000
Selenium	200	1400	700	10 000
Zinc	7400	60 000	30 000	400 000
Cyanide (free)	250	300	240	1 500
Polycyclic Aromatic Hydrocarbons (PAHs)				
Carcinogenic PAHs (as BaP TEQ) ⁶	3	4	3	40
Total PAHs ⁷	300	400	300	4000
Phenols				
Phenol	3000	45 000	40 000	240 000
Pentachlorophenol	100	130	120	660
Cresols	400	4 700	4 000	25 000
Organochlorine Pesticides				
DDT+DDE+DDD	240	600	400	3600
Aldrin and dieldrin	6	10	10	45
Chlordane	50	90	70	530
Endosulfan	270	400	340	2000
Endrin	10	20	20	100
Heptachlor	6	10	10	50
HCB	10	15	10	80
Methoxychlor	300	500	400	2500
Mirex	10	20	20	100
Toxaphene	20	30	30	160
Herbicides				
2,4,5-T	600	900	800	5000
2,4-D	900	1600	1300	9000
MCPA	600	900	800	5000

⁶ National Environment Protection Council (2013), *National Environment Protection (Assessment of Site Contamination) Measure, 2013, Table 1a*

Table 6: Health-based investigation levels continued

Chemical	Health-based investigation levels (mg/kg)			
	Residential ¹ A	Residential ¹ B	Recreational ¹ C	Commercial/ industrial ¹ D
MCPB	600	900	800	5000
Mecoprop	600	900	800	5000
Picloram	4500	6600	5700	35000
Other Pesticides				
Atrazine	320	470	400	2500
Chlorpyrifos	160	340	250	2000
Bifenthrin	600	840	730	4500
Other Organics				
PCBs ⁸	1	1	1	7
PBDE Flame Retardants (Br1–Br9)	1	2	2	10

4.3 Quality of Analytical Data

National Association of Testing Authority (NATA) accredits laboratories on a parameter by parameter basis and the laboratories must provide quantitative evidence of their ability and competence to produce reliable results against recognised benchmarks (i.e. NATA proficiency programs, other national and international proficiency programs, and performance against certified reference materials). Accredited laboratories are able to demonstrate the ability to produce reliable, repeatable results for a range of parameters within a range of sample matrices.

Laboratories performing analyses for environmental purposes will normally base their methods on a range of guidelines and 'standard methods' including:

- National Environment Protection (Assessment of Site Contamination) Measure 2013;
- A guide to the Sampling and Analysis of Waters, Wastewater, Soil and Wastes - EPA Publication 441 (2000);
- Australian Standard 4482.1 (Guide to the sampling and investigation of potentially contaminated soil- Part 1: Non-volatile and semi-volatile compounds) & Australian Standard 4482.2 (Guide to the sampling and investigation of potentially contaminated soil- Part 2: Volatile substances);
- American Public Health Association (APHA), American Water Works Association and WPCF "Standard Methods for the Examination of Waters and Waste Waters" (Latest Publication);

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- United States Environmental Protection Agency (US EPA) Test Methods for Evaluating Solid Waste, Laboratory Manual, Physical/Chemical Methods, SW846 (Latest Edition);
- US EPA Contract Laboratory Program for Organic (1999) and Inorganic (2002) Data Review;
- US EPA Guidance on Environmental Data Verification and Data Validation (2002);
- Other Publications (eg. ASTM) or accredited in house methods as may be developed and accredited for specific parameters.

Analysis of samples requires a number of important steps including sub-sampling, pre-treatment including digestion/extraction, and physical/chemical/biological measurement of specific parameters against relevant standard materials.

With regard to the specific issue of specified recoveries, the EPA and APHA methods nominate acceptable broad recovery ranges for both soils and waters. However, it must be emphasized that certain parameter recoveries can vary significantly depending on sample type and matrix. The 'APHA Standard Methods' provide a discussion at the end of most methods on precision and bias. Similarly the USEPA Methods SW-846 provides quantitative data for precision and accuracy for most methods.

The adoption of the general advisory ranges for specific recoveries has been used to screen laboratory data. Where recoveries are outside these ranges the data was assessed in relation to specific laboratory comments, published industry 'norms' for specific parameters and/or the likely impact on the interpretation of the meaning of the results. If significant doubt exists regarding a laboratories performance then data can be requested on their estimates of uncertainty of measurement, control chart information and proficiency program performance. Laboratories must maintain this information as a requirement of their NATA accreditation. It must be emphasised that as generally required by AS4482.1, check samples are collected during sampling programs. These samples are sent to a second, independent, NATA accredited laboratory for analysis. However, no check samples were outsourced during this phase 1 PESA.

The following section outlines a consideration of the QC information provided as part of this preliminary environmental investigation.

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4.3.1 Laboratory

Accuracy of laboratory QC results (laboratory control samples, matrix spikes and surrogates) is measured by percentage recovery (%R) of known additions. Acceptance targets for laboratory control samples and matrix spikes is generally between 70% and 130% recovery for organics and 80-120% recovery for metals (APHA 1992), however acceptable accuracy for certain methods may exceed these limits (USEPA 1986). Acceptance targets for surrogates are between 80% and 120% recovery for organics. It should be noted that matrix dependant QC methods (matrix spikes, surrogates) can be affected by the matrix; hence these %R results have been reviewed qualitatively.

Results were determined to be within the acceptable range.

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5. DISCUSSION OF RESULTS AND RECOMMENDATIONS

The site has predominately been used as grazing pasture. A house and associated buildings were established at the site between 1977 and 1988.

Having carried out the site investigation and associated laboratory analysis, the results were reviewed with respect to contaminant levels and beneficial uses of the site.

None of the reported analytic concentrations exceeded the Health Investigation Levels (HIL's) for industrial/commercial use. Please see Appendix B for further details.

Therefore, the land encompassed within the site is considered suitable for the permitted Industrial and Commercial use. The land encompassed within the site can be relied upon by Murphy Trust No. 1, as being 'fit for purpose' based on the current conditions as described by the current investigation.

According to the outcome of the risk assessment performed during this investigation, no additional environmental site assessments (Phase 3 ESA) are considered necessary. Please note that this limited environmental site investigation does not constitute a "Statement of Environmental Audit". If an Environmental Audit is required in the future, additional testing and investigation may need to be undertaken.

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6. REFERENCES

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

Enhealth (2001). *Health-Based Soil Investigation Levels*, Commonwealth of Australia.

EPA (May 2004). *Classification of Wastes*, EPA Bulletin, Publication 448, EPA Victoria.

Netherlands (2000). *Circular on Target Values and Intervention Values for Soil Remediation*. Ministry of Housing, Spatial Planning and the Environment, Netherlands Government.

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

National Environment Protection Council (2013). *National Environment Protection (Assessment of Site Contamination) Measure*, 2013.

Standards Australia (2005). *Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 1: Non-volatile and Semi-volatile Compounds*. Australian Standard AS 4482.1-2005.

Standards Australia (1999). *Guide to the Sampling and Investigation of Potentially Contaminated Soil. Part 2: Volatile Substances*. Australian Standard AS 4482.2-1999.

State Environment Protection Policy (Prevention and Management of Contamination of Land). S95, 4th June 2002.

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7. REPORT LIMITATIONS

- a) This technical report has been prepared in good faith based on the information provided by our Client's representative, Ms Louise Lowe, Urban Planner for KLM Spatial, and in accordance with LRP&A quality system.
- b) This report has been commissioned by and for the specific use of our Client Murphy Trust No. 1 for the 'Evans Rd' project only, located at 280 Evans Road, Cranbourne West, Victoria. Therefore, no responsibility or liability to any third party is accepted for any damages, howsoever arising, from contents of this report or its use by any third party. Where such liability cannot be excluded it is reduced to the full extent lawful.
- c) Please note that only limited laboratory testing was undertaken, and that all soil properties have been inferred to similar soils across the soil profile based on visual identification only. However, soil may vary greatly within a site, and therefore, further testing may be required to increase the degree of confidence in this assumption, if warranted by a risk assessment and/or project requirements. It should also be noted that whenever applicable, no responsibility or liability is accepted where the appropriate testing as detailed in this report is not undertaken by a qualified NATA Testing Authority. Please note that LRP&A can coordinate the appropriate geotechnical testing.
- d) The use of this report **is not** appropriate where there have been any changes in the nature of the project or the conditions present during any field investigation or site inspection.
- e) No responsibility or liability is accepted where any part of this report is used in isolation, out of context or without consideration of the total document.
- f) If at a later time it is found that the information previously provided to LRP&A was incorrect, incomplete and/or if at the time of construction the soil conditions differ drastically from those initially reported, LRP&A **should be contacted immediately** and this report may need to be reviewed and amended if appropriate.

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Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 9555 6995.

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APPENDIX A**Sampling Locations and Borehole Logs**

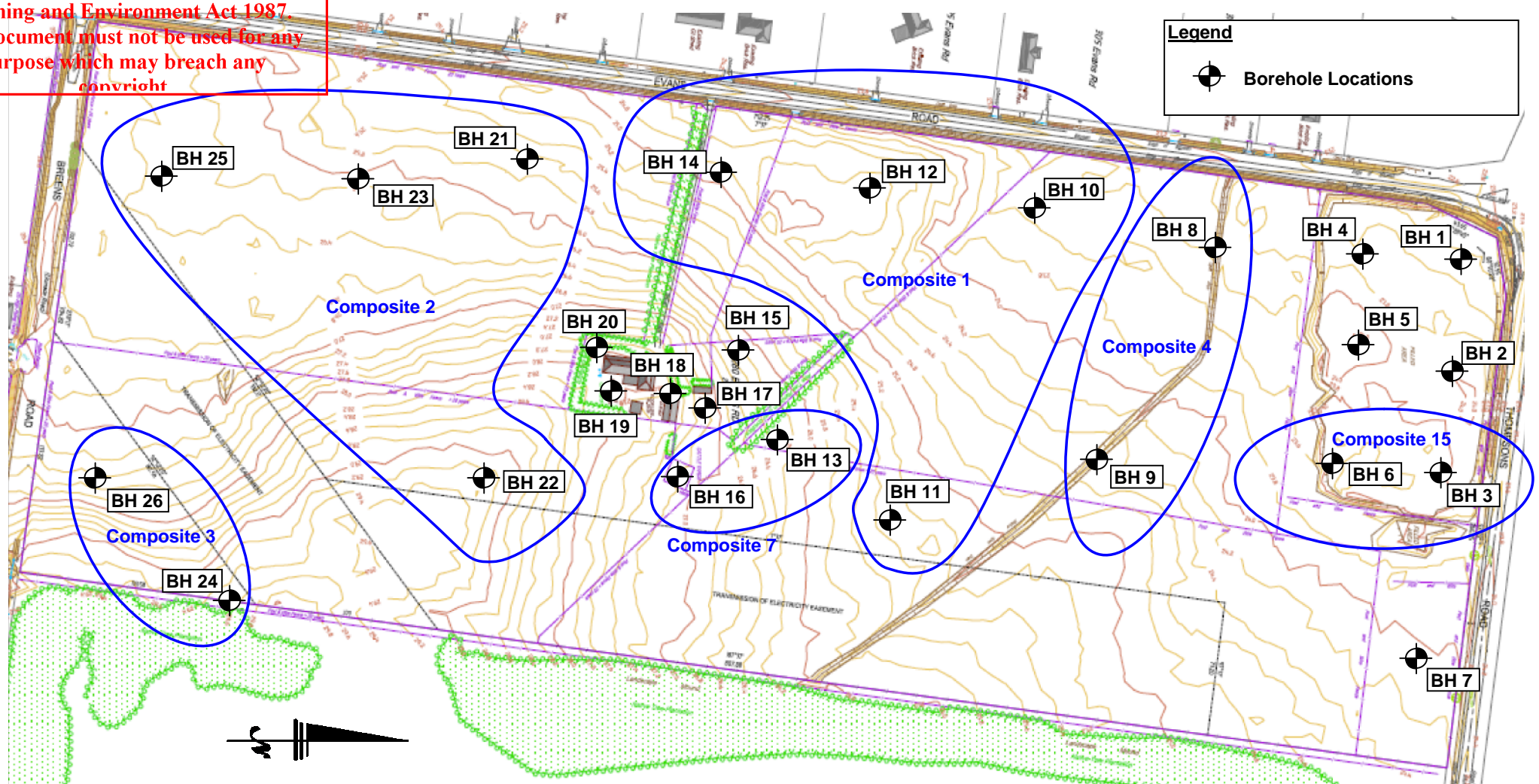
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ADVERTISED PLAN

Borehole Locations



This drawing shall be read in conjunction with LRP&A Report No. 130479 Evens Rd /2.

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NOT TO SCALE

Source: KLM Spatial Plan of Survey

Title Test Pit Locations
Locality 280 Evens Road
Cranbourne West, Victoria

Dwg. No 130479/2 BH
Prepared HD 3/10/2013
Checked PA 21/10/2013

Limited Environmental Site Assessment
Investigation date: 28/3/2013

Project: 130479 Evens Rd / 2

Sheet No BH Log


File 130479-2 Eng Log.xls

ADVERTISED PLAN

LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface		Borehole No: BH1 Date: 2/10/2013 Logged by: SMP Entered by: HD					
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover, top soil Silty Sand FILL Dark grey	FILL	L	M				
	0.2		Sandy Clay FILL Grey to mottled orange to brown Medium to high plasticity	FILL	VSt	M		EPA Screen		0.20m
	0.3									
	0.4									
	0.5	0.50	Borehole 1 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH2 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover, top soil Silty Sand FILL	FILL						
	0.2		Sandy Silt FILL Grey	FILL	MD	M				
	0.3	0.30	Sandy Clay FILL Grey to orange to mottled brown Some minor Gravel	FILL	St	M-D				
	0.5	0.50						EPA Screen	0.50m	
	0.6		Borehole 2 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH3 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover, top soil Silty Sand FILL Grey	FILL	L	M				0.20m
	0.2		Silty Clay FILL Medium to high plasticity Yellow to brown to mottled grey Some Gravel & Sand throughout	FILL	St	M		EPA Screen		
	0.3									
	0.4									
	0.5	0.50	Borehole 3 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		



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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH4 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover, top soil Silty Sand FILL Grey to dark grey	FILL	L	M				
	0.2		Silty Clay FILL Medium to high plasticity Yellow to brown to mottled grey Some Gravel & Sand throughout	FILL	VSt	M				
	0.5	0.50						EPA Screen		0.50m
	0.6		Borehole 4 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense					samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test			Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel					moisture: D dry W wet M moist Sat Saturated			Doc. No. LBH-001 Issued Date: 20/11/08		


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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH5 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Grass cover, top soil Sandy Silt FILL Grey to mottled brown	FILL	L	M				
	0.2		Silty Clay FILL Medium to high plasticity Mottled brown to grey to orange Some Gravel & pieces of Brick	FILL		M		EPA Screen	0.20m	
	0.3									
	0.4									
	0.5	0.50	Borehole 5 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		



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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH6 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover, top soil	FILL						
	0.2		Gravelly Clay FILL Brown Iron stained Gravel	FILL	S-F	M				
	0.3									
	0.4									
	0.5	0.50						EPA Screen		0.50m
	0.6		Borehole 6 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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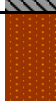
 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH7 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Grass cover, top soil Sandy SILT Grey to brown Water logged ground Water over the surface	ML	S	Sat				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Clayey SAND Grey to brown	SC	MD	Sat				
	0.5		Borehole 7 terminated at 0.50m					EPA Screen	0.50m	
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH8 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Grass cover, top soil Sandy SILT Grey to black	ML	S	W		EPA Screen		0.20m
	0.2		Sandy SILT Grey to black Some Clay	MH	S	W				
	0.3									
	0.4									
	0.5	0.50	Borehole 8 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH9 Date: 2/10/2013 Logged by: PA Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description Type, Plasticity ,Colour, Particle characteristics	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Grass cover, top soil Sandy SILT Black	ML	S	W				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Sandy SILT Black	ML	S	W				
	0.4		SAND Dark brown Medium to coarse Gravel	SW	L	W				
	0.5		Borehole 9 terminated at 0.50m					EPA Screen	0.50m	
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				Samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH10 Date: 2/10/2013 Logged by: PA Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Grass cover, top soil Silty SAND Dark grey to black	SM	S	M				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Silty SAND with some Clay	SM		M-W				
	0.3									
	0.4	0.40	Sandy CLAY Black to grey	CI	F	M				
0.5	0.50					EPA Screen	0.50m			
	0.6		Borehole 10 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				Samples/Tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
Method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				Moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH11 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover	FILL						
	0.2		Silty SAND Grey	SM		M-W		EPA Screen		0.20m Geology: Quaternary unnamed swamp and lake deposits
	0.3									
	0.4									
	0.5	0.50	Borehole 11 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		



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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH12 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover	FILL						
	0.2		Silty Clay FILL Grey to orange to brown	FILL				EPA Screen		0.20m
	0.3									
	0.4									
	0.5	0.50	Borehole 12 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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<div>LRPardo & Associates</div> <div>BOREHOLE LOG</div>			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH13 Date: 2/10/2013 Logged by: SMP Entered by: HD					
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations	
H	0.1		Silty SAND Grey	SM	L-MD	M-W		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m	
	0.2										
	0.3										
	0.4										
	0.5										
	0.50		Borehole 13 terminated at 0.50m								
	0.6										
	0.7										
	0.8										
	0.9										
	1.0										
	1.1										
	1.2										
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal			
method: A auger drilling E Excavator				R roller/tricone H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated			Doc. No. LBH-001 Issued Date: 20/11/08



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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH14 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Silty SAND, topsoil Brown to grey	SM	MD	W				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Silty SAND Brown to grey	SM	MD	W				
	0.3									
	0.4									
	0.5	0.50						EPA Screen		0.50m
	0.6		<div style="border: 2px solid red; padding: 10px; margin: 0 auto; width: 80%;"> <p style="color: red; font-weight: bold; text-align: center;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH15 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description Type, Plasticity ,Colour, Particle characteristics	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Silty SAND Fine grained Brown to grey	SM		M		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2									
	0.3									
	0.4	0.40								
	0.5		Borehole 15 Refusal at 0.40m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH16 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Silty Sandy CLAY, topsoil Brown to dark grey	CI	St	W		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2		Silty Sandy CLAY Brown to dark grey	CI	St	W				
	0.4		Becoming Sandy CLAY Light brown to grey							
	0.5		Borehole 16 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH17 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Silty SAND, topsoil Medium grained Brown to grey	SM	MD	M		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2		Silty SAND Medium grained Brown to grey	SM	MD	M				
	0.3									
	0.4		Becoming wet							
	0.5	0.50	Borehole 17 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH18 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Silty SAND, topsoil Medium grained Brown to grey	SM	MD-D	M		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2		Silty SAND Medium grained Brown to grey	SM	MD-D	M				
	0.3									
	0.4									
	0.5	0.50	Borehole 18 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH19 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Silty SAND, topsoil Medium grained Brown to grey	SM	MD-D	M				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Silty SAND Medium grained Brown to grey	SM	MD-D	M				
	0.5	0.50						EPA Screen		0.50m
	0.6		<div style="border: 2px solid red; padding: 10px; margin: 0 auto; width: 80%;"> This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright </div>							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH20 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.50	Silty SAND Brown to dark grey Root affected	SM	D	D-M				Geology: Quaternary unnamed swamp and lake deposits
	0.2									
	0.3									
	0.4									
	0.5							EPA Screen		0.50m
	0.6		<div style="border: 2px solid red; padding: 10px; margin: 10px auto; width: 80%;"> <p style="color: red; text-align: center;">This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright</p> </div>							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH21 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.10	Grass cover SAND	SW	L					
	0.2		SAND with Gravel Grey	FILL	D	S-W				
	0.3									
	0.4									
	0.5	0.50						EPA Screen		0.50m
	0.6		Borehole 21 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		


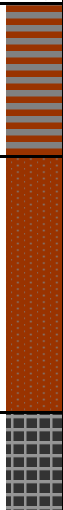
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LRPardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH22 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Silty SAND Grey to brown	SM	MD	M		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2		Silty SAND Grey to brown	SM	MD	M				
	0.3									
	0.4									
	0.5	0.55								
	0.6	0.55	Borehole 22 refusal at 0.55m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				Samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH23 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Grass cover, top soil Silty SAND Dark brown to grey	SM	MD	M		EPA Screen		0.20m Geology: Quaternary unnamed swamp and lake deposits
	0.2		Silty SAND Dark brown to grey	SM	MD	M				
	0.4		Sandy Gravel Grey	GP	MD	W				
	0.5		Borehole 23 terminated at 0.50m							
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		



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LR Pardo & Associates BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH24 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Silty SAND, topsoil Grey to brown	SM	MD	M				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Silty SAND Grey to brown	SM	MD	M				
	0.3									
	0.4		Becoming wet							
	0.5							EPA Screen		0.50m
	0.6	0.60								
	0.7	0.60	Borehole 24 refusal at 0.60m							
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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<div>LRPardo & Associates</div> <div>BOREHOLE LOG</div>			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH25 Date: 2/10/2013 Logged by: SMP Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description Type, Plasticity ,Colour, Particle characteristics	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1		Grass cover Sandy SILT Grey to brown	ML	S	W				Geology: Quaternary unnamed swamp and lake deposits
	0.2		Sandy CLAY High plasticity Brown to grey	CI	F-St	W				
	0.5		Borehole 25 terminated at 0.50m					EPA Screen	0.50m	
	0.6									
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density:				samples/tests:				Penetration		
VS very soft Fb friable				V pilcon shear vane kPa				1 no resistance		
S soft VL very loose				U63 undisturbed sample 63mm				2 ranging		
F firm L loose				DS disturbed sample				3 to		
St stiff MD medium dense				PP pocket penetrometer kPa				4 Refusal		
VSt very stiff D dense				CT samples for contamination test						
H hard VD very dense				N standard penetration test						
method:				moisture:				Doc. No. LBH-001		
A auger drilling R roller/tricone				D dry W wet				Issued Date: 20/11/08		
E Excavator H Hand auger/shovel				M moist Sat Saturated						

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 BOREHOLE LOG			Client: Murphy Trust No. 1 Project: 130479 Evans Road /2 Borehole Location: See site plan Borehole Elevation: on surface			Borehole No: BH26 Date: 3/10/2013 Logged by: HD Entered by: HD				
Method	Depth (metres)	Graphic Log	Material Description <small>Type, Plasticity ,Colour, Particle characteristics</small>	Soil Classification	Consistency / Density	Moisture	Other	Type	Test Results	Structure and additional observations
H	0.1	0.15	Silty SAND, topsoil Grey to brown	SM	MD	W		EPA Screen		Geology: Quaternary unnamed swamp and lake deposits 0.20m
	0.2		Silty SAND Grey to brown	SM	MD	W				
	0.3									
	0.4									
	0.5	0.50	Becoming more Clayey Saturated							
	0.6		Borehole 26 terminated at 0.50m							
	0.7									
	0.8									
	0.9									
	1.0									
	1.1									
	1.2									
Consistency/density: VS very soft Fb friable S soft VL very loose F firm L loose St stiff MD medium dense VSt very stiff D dense H hard VD very dense				samples/tests: V pilcon shear vane kPa U63 undisturbed sample 63mm DS disturbed sample PP pocket penetrometer kPa CT samples for contamination test N standard penetration test				Penetration 1 no resistance 2 ranging 3 to 4 Refusal		
method: A auger drilling R roller/tricone E Excavator H Hand auger/shovel				moisture: D dry W wet M moist Sat Saturated				Doc. No. LBH-001 Issued Date: 20/11/08		

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APPENDIX B**Test Results Summary**

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Test Results Summary

LOCATION	C1 (4 Sample)	C2 (4 Sample)	C3 (2 Sample)	C4 (2 Sample)	C5 (Single)	C6 (Single)	C7 (2 Sample)	NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
% Moisture	16	16	16	13	25	22	15	-	-	-	-
Heavy Metals											
Arsenic	7.1	17	29	3.2	41	14	35	3,000	1,500	750	Pass
Cadmium	< 0.4	< 0.4	0.5	< 0.4	0.6	< 0.4	0.5	900	450	225	Pass
Chromium	23	29	21	10	110	29	55	3,600	1,800	900	Pass
Copper	< 5	5.3	< 5	< 5	40	6.4	20	240,000	120,000	60,000	Pass
Lead	5.3	< 5	7.2	< 5	< 5	7.2	8	1,500	750	375	Pass
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	180	90	45	Pass
Nickel	9.3	10	< 5	< 5	52	19	14	6,000	3,000	1,500	Pass
Selenium	< 2	< 2	< 2	< 2	< 2	< 2	< 2	10,000	5,000	2,500	Pass
Zinc	< 5	< 5	< 5	< 5	28	9	7.3	400,000	200,000	100,000	Pass
Cyanide (total)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1,500	750	375	Pass
Polychlorinated Biphenyls											
Total PCB	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	10	5	3	Pass
Phenols (non-Halogenated)											
2-Methylphenol (o-Cresol)	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	25,000	12,500	6,250	Pass
Phenol	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	240,000	120,000	60,000	Pass
Phenols (Halogenated)											
2,4,5-Trichlorophenol	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5,000	2,500	1,250	Pass
2,4-Dichlorophenol	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	9,000	4,500	2,250	Pass
Pentachlorophenol	< 1	< 1	< 1	< 1	< 1	< 1	< 1	660	330	165	Pass
Polycyclic Aromatic Hydrocarbons											
Benzo(a)pyrene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	40	20	10	Pass
Total PAH	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4,000	2,000	1,000	Pass

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Please read in conjunction with LRP&A report no. 130479 Evans Rd/2.

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 <p>Consulting Civil & Geotechnical Engineers 2 Alex Avenue, Moorabbin VIC 3189 Tel: (03) 9555 6995 Fax: (03) 9553 1394 www.pardoengineering.com.au</p>		<p>Title Test Results Summary Locality 280 Evans Road Cranbourne</p> <p>Dwg. No 130479/2 TRS Prepared PA 17/10/2013 Checked LP 22/11/2013</p>	<p>Limited Phase 2 Environmental Site Assessment</p> <p>Project: 130479 Evans Rd/2</p>	
			Sheet No Test 1	File 130479-2 Test summary.xls

Test Results Summary


LOCATION	C1 (4 Sample)	C2 (4 Sample)	C3 (2 Sample)	C4 (2 Sample)	C5 (Single)	C6 (Single)	C7 (2 Sample)	NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
Organochlorine Pesticides											
4,4'-DDD	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3,600	1,800	900	Pass
4,4'-DDE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
4,4'-DDT	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Aldrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	45	23	11	Pass
Dieldrin	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1				Pass
Chlordane	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endosulfan I	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2,000	1,000	500	Pass
Endosulfan II	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endosulfan sulphate	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	100	50	25	Pass
Endrin aldehyde	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endrin ketone	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Heptachlor	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	50	25	13	Pass
Heptachlor epoxide	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Methoxychlor	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2,500	1,250	625	Pass
Toxaphene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	160	80	40	Pass

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<div></div> <div>Consulting Civil & Geotechnical Engineers 2 Alex Avenue, Moorabbin VIC 3189 Tel: (03) 9555 6995 Fax: (03) 9553 1394 www.pardoengineering.com.au</div>		Title Test Results Summary	Limited Phase 2 Environmental Site Assessment	
		Locality 280 Evans Road Cranbourne		
		Dwg. No 130479/2 TRS	Project: 130479 Evans Rd/2	
Prepared PA 17/10/2013				
		Checked LP 22/11/2013	Sheet No Test 2	File 130479-2 Test summary.xls

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Test Results Summary

LOCATION	C8 (Single)	C9 (Single)	C10 (Single)	C11 (Single)	C12 (Single)	C13 (Single)	C14 (Single)	NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
% Moisture	11	13	12	12	4.7	20	16	-	-	-	-
Heavy Metals											
Arsenic	3.3	9.8	12	25	12	20	26	3,000	1,500	750	Pass
Cadmium	< 0.4	< 0.4	< 0.4	0.5	< 0.4	< 0.4	0.5	900	450	225	Pass
Chromium	7.3	10	17	17	12	43	44	3,600	1,800	900	Pass
Copper	< 5	< 5	< 5	< 5	< 5	8.1	7	240,000	120,000	60,000	Pass
Lead	< 5	9.9	< 5	< 5	< 5	16	7.7	1,500	750	375	Pass
Mercury	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	180	90	45	Pass
Nickel	< 5	< 5	< 5	< 5	< 5	5.3	9.9	6,000	3,000	1,500	Pass
Selenium	< 2	< 2	< 2	< 2	< 2	< 2	< 2	10,000	5,000	2,500	Pass
Zinc	< 5	8.5	< 5	< 5	< 5	42	22	400,000	200,000	100,000	Pass
Cyanide (total)	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1,500	750	375	Pass
Polychlorinated Biphenyls											
Total PCB	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	10	5	3	Pass
Phenols (non-Halogenated)											
2-Methylphenol (o-Cresol)	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	25,000	12,500	6,250	Pass
Phenol	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	240,000	120,000	60,000	Pass
Phenols (Halogenated)											
2,4,5-Trichlorophenol	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5,000	2,500	1,250	Pass
2,4-Dichlorophenol	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	9,000	4,500	2,250	Pass
Pentachlorophenol	< 1	< 1	< 1	< 1	< 1	< 1	< 1	660	330	165	Pass
Polycyclic Aromatic Hydrocarbons											
Benzo(a)pyrene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	40	20	10	Pass
Total PAH	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	4,000	2,000	1,000	Pass

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**Limited Phase 2 Environmental
Site Assessment**

Project: 130479 Evans Rd/2

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Test Results Summary

LOCATION	C8 (Single)	C9 (Single)	C10 (Single)	C11 (Single)	C12 (Single)	C13 (Single)	C14 (Single)	NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
Organochlorine Pesticides											
4.4'-DDD	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	3,600	1,800	900	Pass
4.4'-DDE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
4.4'-DDT	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Aldrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	45	23	11	Pass
Dieldrin	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1				Pass
Chlordane	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	530	265	133	Pass
Endosulfan I	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2,000	1,000	500	Pass
Endosulfan II	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endosulfan sulphate	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endrin	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	100	50	25	Pass
Endrin aldehyde	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Endrin ketone	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Heptachlor	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	50	25	13	Pass
Heptachlor epoxide	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05				Pass
Methoxychlor	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2,500	1,250	625	Pass
Toxaphene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	160	80	40	Pass

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**Limited Phase 2 Environmental
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Project: 130479 Evans Rd/2

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Test Results Summary

LOCATION	C15 (2 Sample)	C16 (Single)	This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any environmental law.					NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
% Moisture	18	17						-	-	-	-
Heavy Metals											
Arsenic	< 10	23						3,000	1,500	750	Pass
Cadmium	< 2	< 0.4						900	450	225	Pass
Chromium	63	12						3,600	1,800	900	Pass
Copper	< 25	< 5						240,000	120,000	60,000	Pass
Lead	< 25	6.8						1,500	750	375	Pass
Mercury	< 0.1	< 0.1						180	90	45	Pass
Nickel	45	< 5						6,000	3,000	1,500	Pass
Selenium	< 10	< 2						10,000	5,000	2,500	Pass
Zinc	< 25	< 5						400,000	200,000	100,000	Pass
Cyanide (total)	< 5	< 5						1,500	750	375	Pass
Polychlorinated Biphenyls											
Total PCB	< 0.1	< 0.1						10	5	3	Pass
Phenols (non-Halogenated)											
2-Methylphenol (o-Cresol)	< 0.2	< 0.2						25,000	12,500	6,250	Pass
Phenol	< 0.5	< 0.5						240,000	120,000	60,000	Pass
Phenols (Halogenated)											
2,4,5-Trichlorophenol	< 1	< 1						5,000	2,500	1,250	Pass
2,4-Dichlorophenol	< 0.5	< 0.5						9,000	4,500	2,250	Pass
Pentachlorophenol	< 1	< 1						660	330	165	Pass
Polycyclic Aromatic Hydrocarbons											
Benzo(a)pyrene	< 0.5	< 0.5						40	20	10	Pass
Total PAH	< 0.5	< 0.5						4,000	2,000	1,000	Pass

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Site Assessment**

Project: 130479 Evans Rd/2

Sheet No Test 5 **File** 130479-2 Test summary.xls

Test Results Summary

LOCATION	C15 (2 Sample)	C16 (Single)						NEPM 2013			Pass/ Fail
								Single Sample	2 Sample Composite	4 Sample Composite	
Organochlorine Pesticides											
4.4'-DDD	< 0.05	< 0.05						3,600	1,800	900	Pass
4.4'-DDE	< 0.05	< 0.05									Pass
4.4'-DDT	< 0.05	< 0.05									Pass
Aldrin	< 0.05	< 0.05						45	23	11	Pass
Dieldrin	< 0.1	< 0.1									Pass
Chlordane	< 0.05	< 0.05						530	265	133	Pass
Endosulfan I	< 0.05	< 0.05						2,000	1,000	500	Pass
Endosulfan II	< 0.05	< 0.05									Pass
Endosulfan sulphate	< 0.05	< 0.05									Pass
Endrin	< 0.05	< 0.05						100	50	25	Pass
Endrin aldehyde	< 0.05	< 0.05									Pass
Endrin ketone	< 0.05	< 0.05									Pass
Heptachlor	< 0.05	< 0.05						50	25	13	Pass
Heptachlor epoxide	< 0.05	< 0.05									Pass
Methoxychlor	< 0.05	< 0.05						2,500	1,250	625	Pass
Toxaphene	< 1	< 1						160	80	40	Pass

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APPENDIX C**Laboratory Test Results**

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Accredited for compliance with ISO/IEC 17025.
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to Australian/national standards.

Attention: Peter Andrews

Report 395133-S
Client Reference 130479 EVANS RD / 2 PRELIMINARY ENVIRONMENTAL ASSESSMENT
Received Date Oct 03, 2013

Client Sample ID			BH10 Soil	BH21 Soil	BH24 Soil	BH8 Soil
Sample Matrix			M13-Oc03982	M13-Oc03983	M13-Oc03984	M13-Oc03985
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	64	53	58	62
% Moisture	0.1	%	18	12	13	14

Client Sample ID			BH13 Soil	BH3 Soil	C1 Soil	C2 Soil
Sample Matrix			M13-Oc03986	M13-Oc03987	M13-Oc03988	M13-Oc03989
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	-
TRH C10-C14	20	mg/kg	-	-	< 20	< 20
TRH C15-C28	50	mg/kg	-	-	< 50	< 50
TRH C29-C36	50	mg/kg	-	-	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	-	-	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
4-Bromofluorobenzene (surr.)	1	%	61	62	-	-

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Client Sample ID			BH13 Soil	BH3 Soil	C1 Soil	C2 Soil
Sample Matrix						
Eurofins mgt Sample No.			M13-Oc03986	M13-Oc03987	M13-Oc03988	M13-Oc03989
Date Sampled			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16	50	mg/kg	-	-	< 50	< 50
TRH >C16-C34	100	mg/kg	-	-	< 100	< 100
TRH >C34-C40	100	mg/kg	-	-	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	-	-	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	-	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	-	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	-	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	-	-	< 0.5	< 0.5
Total PAH	0.5	mg/kg	-	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	-	-	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	-	-	116	130
p-Terphenyl-d14 (surr.)	1	%	-	-	133	122
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	-	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	-	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	-	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	-	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	-	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	-	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	-	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	-	-	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	-	-	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	-	-	< 0.05	< 0.05
Toxaphene	1	mg/kg	-	-	< 1	< 1
Dibutylchloroendate (surr.)	1	%	-	-	115	91
Tetrachloro-m-xylene (surr.)	1	%	-	-	107	90

Client Sample ID			BH13 Soil	BH3 Soil	BH1 Soil	BH2 Soil
Sample Matrix			M13-Oc03986	M13-Oc03987	M13-Oc03988	M13-Oc03989
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	-	-	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	-	-	< 0.1	< 0.1
Total PCB	0.1	mg/kg	-	-	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	-	-	115	91
Tetrachloro-m-xylene (surr.)	1	%	-	-	107	90
Phenols (Halogenated)						
2-Chlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
2,4,5-Trichlorophenol	1.0	mg/kg	-	-	< 1	< 1
2,4,6-Trichlorophenol	1.0	mg/kg	-	-	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	-	-	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	-	-	< 1	< 1
Pentachlorophenol	1.0	mg/kg	-	-	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	-	-	< 1	< 1
Total Halogenated Phenol	1	mg/kg	-	-	< 1	< 1
Phenols (non-Halogenated)						
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	-	-	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	-	-	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	-	-	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	-	-	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	-	-	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	-	-	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	-	-	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	-	-	< 5	< 5
Dinoseb	20	mg/kg	-	-	< 20	< 20
Phenol	0.5	mg/kg	-	-	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	-	-	< 20	< 20
Phenol-d6 (surr.)	1	%	-	-	46	92
Cyanide (total)	5	mg/kg	-	-	< 5	< 5
Fluoride	100	mg/kg	-	-	120	< 100
% Moisture	0.1	%	12	23	16	16
Heavy Metals						
Arsenic	2	mg/kg	-	-	7.1	17
Cadmium	0.4	mg/kg	-	-	< 0.4	< 0.4
Chromium	5	mg/kg	-	-	23	29
Copper	5	mg/kg	-	-	< 5	5.3
Lead	5	mg/kg	-	-	5.3	< 5
Mercury	0.1	mg/kg	-	-	< 0.1	< 0.1
Molybdenum	10	mg/kg	-	-	< 10	< 10
Nickel	5	mg/kg	-	-	9.3	10
Selenium	2	mg/kg	-	-	< 2	< 2
Silver	5	mg/kg	-	-	< 5	< 5

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Client Sample ID			BH13	BH3	C1	C2
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			M13-Oc03986	M13-Oc03987	M13-Oc03988	M13-Oc03989
Date Sampled			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Test/Reference	LOR	Unit				
Heavy Metals						
Tin	10	mg/kg	-	-	< 10	< 10
Zinc	5	mg/kg	-	-	< 5	< 5

Client Sample ID			C3	C4	C5	C6
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins mgt Sample No.			M13-Oc03990	M13-Oc03991	M13-Oc03992	M13-Oc03993
Date Sampled			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	-	-	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	-	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	-	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	-	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	-	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	-	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	-	59	57
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	-	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	-	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	-	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID			C3 Soil M13-Oc03990 Oct 03, 2013	C4 Soil M13-Oc03991 Oct 03, 2013	C5 Soil M13-Oc03992 Oct 03, 2013	C6 Soil M13-Oc03993 Oct 03, 2013
Sample Matrix						
Eurofins mgt Sample No.						
Date Sampled						
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	117	130	129	128
p-Terphenyl-d14 (surr.)	1	%	137	144	142	148
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchloredate (surr.)	1	%	121	93	120	110
Tetrachloro-m-xylene (surr.)	1	%	143	89	142	102
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	121	93	120	110
Tetrachloro-m-xylene (surr.)	1	%	143	89	142	102
Phenols (Halogenated)						
2-Chlorophenol	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
2,4,5-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
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1

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Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	C3 Soil M13-Oc03990 Oct 03, 2013	C4 Soil M13-Oc03991 Oct 03, 2013	C5 Soil M13-Oc03992 Oct 03, 2013	C6 Soil M13-Oc03993 Oct 03, 2013
Phenols (Halogenated)						
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1	< 1
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
2-Methyl-4.6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
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
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	86	96	93	110
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride	100	mg/kg	< 100	< 100	160	320
% Moisture	0.1	%	16	13	25	22
Heavy Metals						
Arsenic	2	mg/kg	29	3.2	41	14
Cadmium	0.4	mg/kg	0.5	< 0.4	0.6	< 0.4
Chromium	5	mg/kg	21	10	110	29
Copper	5	mg/kg	< 5	< 5	40	6.4
Lead	5	mg/kg	7.2	< 5	< 5	7.2
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Nickel	5	mg/kg	< 5	< 5	52	19
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	5	mg/kg	< 5	< 5	< 5	< 5
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	< 5	< 5	28	9.0

Client Sample ID Sample Matrix Eurofins mgt Sample No. Date Sampled Test/Reference	LOR	Unit	C7 Soil M13-Oc03994 Oct 03, 2013	C8 Soil M13-Oc03995 Oct 03, 2013	C9 Soil M13-Oc03996 Oct 03, 2013	C10 Soil M13-Oc03997 Oct 03, 2013
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	-	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50

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Client Sample ID			C7 Soil	C8 Soil	C9 Soil	C10 Soil
Sample Matrix			M13-Oc03994	M13-Oc03995	M13-Oc03996	M13-Oc03997
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
BTEX						
Benzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	63	60	60
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	-	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	128	125	130	133
p-Terphenyl-d14 (surr.)	1	%	142	135	143	148
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05

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Client Sample ID			C7 Soil	C8 Soil	C9 Soil	C10 Soil
Sample Matrix			M13-Oc03994	M13-Oc03995	M13-Oc03996	M13-Oc03997
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchloredate (surr.)	1	%	127	97	97	104
Tetrachloro-m-xylene (surr.)	1	%	132	80	93	89
Polychlorinated Biphenyls						
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	127	97	97	104
Tetrachloro-m-xylene (surr.)	1	%	132	80	93	89
Phenols (Halogenated)						
2-Chlorophenol	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
2,4,5-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
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1	< 1
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
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
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
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	106	102	102	84
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5

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Client Sample ID			C7 Soil	C8 Soil	C9 Soil	C10 Soil
Sample Matrix			M13-Oc03994	M13-Oc03995	M13-Oc03996	M13-Oc03997
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Fluoride	100	mg/kg	< 100	< 100	< 100	< 100
% Moisture	0.1	%	15	11	13	12
Heavy Metals						
Arsenic	2	mg/kg	35	3.3	9.8	12
Cadmium	0.4	mg/kg	0.5	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	55	7.3	10	17
Copper	5	mg/kg	20	< 5	< 5	< 5
Lead	5	mg/kg	8.0	< 5	9.9	< 5
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Nickel	5	mg/kg	14	< 5	< 5	< 5
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	5	mg/kg	< 5	< 5	< 5	< 5
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	7.3	< 5	8.5	< 5

Client Sample ID			C11 Soil	C12 Soil	C13 Soil	C14 Soil
Sample Matrix			M13-Oc03998	M13-Oc03999	M13-Oc04000	M13-Oc04001
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	22	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	< 50	< 50
BTEX						
Benzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Toluene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	< 0.3	< 0.3
4-Bromofluorobenzene (surr.)	1	%	54	62	61	69
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene ^{N02}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
TRH C6-C10	20	mg/kg	< 20	< 20	< 20	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	< 20	< 20	< 20	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	< 50	< 50	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	< 100	< 100
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

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Client Sample ID	Sample Matrix	Eurofins mgt Sample No.	Date Sampled	Test/Reference	LOR	Unit	C11 Soil M13-Oc03998 Oct 03, 2013	C12 Soil M13-Oc03999 Oct 03, 2013	C13 Soil M13-Oc04000 Oct 03, 2013	C14 Soil M13-Oc04001 Oct 03, 2013
Polycyclic Aromatic Hydrocarbons										
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Indeno(1,2,3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5				
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6	0.6	0.6				
2-Fluorobiphenyl (surr.)	1	%	120	136	140	125				
p-Terphenyl-d14 (surr.)	1	%	136	90	147	131				
Organochlorine Pesticides										
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
a-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Aldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
b-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
d-BHC	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Dieldrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endrin	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Heptachlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05				
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1				
Dibutylchloroendate (surr.)	1	%	132	79	118	111				
Tetrachloro-m-xylene (surr.)	1	%	132	81	109	113				
Polychlorinated Biphenyls										
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1				



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Client Sample ID			C11 Soil	C12 Soil	C13 Soil	C14 Soil
Sample Matrix			M13-Oc03998	M13-Oc03999	M13-Oc04000	M13-Oc04001
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013	Oct 03, 2013	Oct 03, 2013
Date Sampled						
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls						
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Total PCB	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	132	79	118	111
Tetrachloro-m-xylene (surr.)	1	%	132	81	109	113
Phenols (Halogenated)						
2-Chlorophenol	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
2,4,5-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
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1	< 1	< 1
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
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1	< 1	< 1
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
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5	< 5	< 5
Dinoseb	20	mg/kg	< 20	< 20	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20	< 20	< 20
Phenol-d6 (surr.)	1	%	71	42	100	87
Cyanide (total)	5	mg/kg	< 5	< 5	< 5	< 5
Fluoride	100	mg/kg	< 100	< 100	260	100
% Moisture	0.1	%	12	4.7	20	16
Heavy Metals						
Arsenic	2	mg/kg	25	12	20	26
Cadmium	0.4	mg/kg	0.5	< 0.4	< 0.4	0.5
Chromium	5	mg/kg	17	12	43	44
Copper	5	mg/kg	< 5	< 5	8.1	7.0
Lead	5	mg/kg	< 5	< 5	16	7.7
Mercury	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 10	< 10	< 10	< 10
Nickel	5	mg/kg	< 5	< 5	5.3	9.9
Selenium	2	mg/kg	< 2	< 2	< 2	< 2
Silver	5	mg/kg	< 5	< 5	< 5	< 5
Tin	10	mg/kg	< 10	< 10	< 10	< 10
Zinc	5	mg/kg	< 5	< 5	42	22

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Client Sample ID			C15 Soil	C16 Soil
Sample Matrix			M13-Oc04002	M13-Oc04003
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013
Date Sampled				
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	< 50
BTEX				
Benzene	0.1	mg/kg	-	< 0.1
Toluene	0.1	mg/kg	-	< 0.1
Ethylbenzene	0.1	mg/kg	-	< 0.1
m&p-Xylenes	0.2	mg/kg	-	< 0.2
o-Xylene	0.1	mg/kg	-	< 0.1
Xylenes - Total	0.3	mg/kg	-	< 0.3
4-Bromofluorobenzene (surr.)	1	%	-	68
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				
Naphthalene ^{N02}	0.5	mg/kg	-	< 0.5
TRH C6-C10	20	mg/kg	-	< 20
TRH C6-C10 less BTEX (F1) ^{N04}	20	mg/kg	-	< 20
TRH >C10-C16	50	mg/kg	< 50	< 50
TRH >C10-C16 less Naphthalene (F2) ^{N01}	50	mg/kg	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5
Benzo(b&j)fluoranthene ^{N07}	0.5	mg/kg	< 0.5	< 0.5
Benzo(g,h,i)perylene	0.5	mg/kg	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	< 0.5
Dibenz(a,h)anthracene	0.5	mg/kg	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5
Benzo(a)pyrene TEQ*	0.5	mg/kg	0.6	0.6
2-Fluorobiphenyl (surr.)	1	%	96	116
p-Terphenyl-d14 (surr.)	1	%	108	128
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	< 0.1
4,4'-DDD	0.05	mg/kg	< 0.05	< 0.05
4,4'-DDE	0.05	mg/kg	< 0.05	< 0.05
4,4'-DDT	0.05	mg/kg	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	< 0.05

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Client Sample ID			C15 Soil	C16 Soil
Sample Matrix			M13-Oc04002	M13-Oc04003
Eurofins mgt Sample No.			Oct 03, 2013	Oct 03, 2013
Date Sampled				
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Aldrin	0.05	mg/kg	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05	< 0.05
Toxaphene	1	mg/kg	< 1	< 1
Dibutylchloredate (surr.)	1	%	127	98
Tetrachloro-m-xylene (surr.)	1	%	143	92
Polychlorinated Biphenyls				
Aroclor-1016	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1221	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1232	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1242	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1248	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1254	0.1	mg/kg	< 0.1	< 0.1
Aroclor-1260	0.1	mg/kg	< 0.1	< 0.1
Total PCB	0.1	mg/kg	< 0.1	< 0.1
Dibutylchloredate (surr.)	1	%	127	98
Tetrachloro-m-xylene (surr.)	1	%	143	92
Phenols (Halogenated)				
2-Chlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
2,4,5-Trichlorophenol	1.0	mg/kg	< 1	< 1
2,4,6-Trichlorophenol	1.0	mg/kg	< 1	< 1
2,6-Dichlorophenol	0.5	mg/kg	< 0.5	< 0.5
4-Chloro-3-methylphenol	1.0	mg/kg	< 1	< 1
Pentachlorophenol	1.0	mg/kg	< 1	< 1
Tetrachlorophenols - Total	1.0	mg/kg	< 1	< 1
Total Halogenated Phenol	1	mg/kg	< 1	< 1
Phenols (non-Halogenated)				
2-Cyclohexyl-4,6-dinitrophenol	20	mg/kg	< 20	< 20
2-Methyl-4,6-dinitrophenol	5	mg/kg	< 5	< 5
2-Methylphenol (o-Cresol)	0.2	mg/kg	< 0.2	< 0.2
2-Nitrophenol	1.0	mg/kg	< 1	< 1
2,4-Dimethylphenol	0.5	mg/kg	< 0.5	< 0.5
2,4-Dinitrophenol	5	mg/kg	< 5	< 5
3&4-Methylphenol (m&p-Cresol)	0.4	mg/kg	< 0.4	< 0.4
4-Nitrophenol	5	mg/kg	< 5	< 5

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Client Sample ID			C15	C16
Sample Matrix			Soil	Soil
Eurofins mgt Sample No.			M13-Oc04002	M13-Oc04003
Date Sampled			Oct 03, 2013	Oct 03, 2013
Test/Reference	LOR	Unit		
Phenols (non-Halogenated)				
Dinoseb	20	mg/kg	< 20	< 20
Phenol	0.5	mg/kg	< 0.5	< 0.5
Total Non-Halogenated Phenol	20	mg/kg	< 20	< 20
Phenol-d6 (surr.)	1	%	68	68
Cyanide (total)	5	mg/kg	< 5	< 5
Fluoride	100	mg/kg	< 100	110
% Moisture	0.1	%	18	17
Heavy Metals				
Arsenic	2	mg/kg	< 10	23
Cadmium	0.4	mg/kg	< 2	< 0.4
Chromium	5	mg/kg	63	12
Copper	5	mg/kg	< 25	< 5
Lead	5	mg/kg	< 25	6.8
Mercury	0.1	mg/kg	< 0.1	< 0.1
Molybdenum	10	mg/kg	< 50	< 10
Nickel	5	mg/kg	45	< 5
Selenium	2	mg/kg	< 10	< 2
Silver	5	mg/kg	< 25	< 5
Tin	10	mg/kg	< 50	< 10
Zinc	5	mg/kg	< 25	< 5

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Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: TRH C6-C36 - MGT 100A	Melbourne	Oct 04, 2013	14 Day
BTEX - Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A	Melbourne	Oct 04, 2013	14 Day
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LM-LTM-ORG2010	Melbourne	Oct 04, 2013	14 Day
Polycyclic Aromatic Hydrocarbons - Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons	Melbourne	Oct 04, 2013	14 Day
Organochlorine Pesticides - Method: USEPA 8081 Organochlorine Pesticides	Melbourne	Oct 04, 2013	14 Day
Polychlorinated Biphenyls - Method: USEPA 8082 Polychlorinated Biphenyls	Melbourne	Oct 04, 2013	28 Day
Phenols (Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Oct 04, 2013	14 Day
Phenols (non-Halogenated) - Method: USEPA 8270 Phenols	Melbourne	Oct 04, 2013	14 Day
Cyanide (total) - Method: USEPA 9010 Cyanide	Melbourne	Oct 07, 2013	14 Day
Fluoride - Method: NEPC 404 (Fusion followed by ISE)	Melbourne	Oct 07, 2013	28 Day
IWRG 621 Metals : Metals M12 - Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury	Melbourne	Oct 04, 2013	28 Day
Total Recoverable Hydrocarbons - 2013 NEPM Fractions - Method: LM-LTM-ORG2010	Melbourne	Oct 04, 2013	14 Day
% Moisture - Method: Method 102 - ANZECC - % Moisture	Melbourne	Oct 04, 2013	14 Day

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Eurofins | mgt Internal Quality Control Review and Glossary

General

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

Holding Times

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

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

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

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

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

UNITS

mg/kg: milligrams per Kilogram

ug/l: micrograms per litre

ppb: Parts per billion

org/100ml: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/l: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Units

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
LCS	Laboratory Control Sample - reported as percent recovery
CRM	Certified Reference Material - reported as percent recovery
Method Blank	In the case of solid samples these are performed on laboratory certified clean sands. In the case of water samples these are performed on de-ionised water.
Surr - Surrogate	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate	A second piece of analysis from a sample outside of the clients batch of samples but run within the laboratory batch of analysis.
Batch SPIKE	Spike recovery reported on a sample from outside of the clients batch of samples but run within the laboratory batch of analysis.
USEPA	United States Environment Protection Authority
APHA	American Public Health Association
ASLP	Australian Standard Leaching Procedure (AS4439.3)
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
CP	Client Parent - QC was performed on samples pertaining to this report
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

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

Results <10 times the LOR : No Limit

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

Results >20 times the LOR : RPD must lie between 0-30%

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

QC DATA GENERAL COMMENTS

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

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Test	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Method Blank					
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A					
TRH C6-C9	mg/kg	< 20	20	Pass	
TRH C10-C14	mg/kg	< 20	20	Pass	
TRH C15-C28	mg/kg	< 50	50	Pass	
TRH C29-C36	mg/kg	< 50	50	Pass	
Method Blank					
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A					
Benzene	mg/kg	< 0.1	0.1	Pass	
Toluene	mg/kg	< 0.1	0.1	Pass	
Ethylbenzene	mg/kg	< 0.1	0.1	Pass	
m&p-Xylenes	mg/kg	< 0.2	0.2	Pass	
o-Xylene	mg/kg	< 0.1	0.1	Pass	
Xylenes - Total	mg/kg	< 0.3	0.3	Pass	
Method Blank					
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010					
Naphthalene	mg/kg	< 0.5	0.5	Pass	
TRH C6-C10	mg/kg	< 20	20	Pass	
TRH C6-C10 less BTEX (F1)	mg/kg	< 20	20	Pass	
TRH >C10-C16	mg/kg	< 50	50	Pass	
TRH >C16-C34	mg/kg	< 100	100	Pass	
TRH >C34-C40	mg/kg	< 100	100	Pass	
Method Blank					
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons					
Acenaphthene	mg/kg	< 0.5	0.5	Pass	
Acenaphthylene	mg/kg	< 0.5	0.5	Pass	
Anthracene	mg/kg	< 0.5	0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5	0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5	0.5	Pass	
Benzo(b&j)fluoranthene	mg/kg	< 0.5	0.5	Pass	
Benzo(g,h,i)perylene	mg/kg	< 0.5	0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5	0.5	Pass	
Chrysene	mg/kg	< 0.5	0.5	Pass	
Dibenz(a,h)anthracene	mg/kg	< 0.5	0.5	Pass	
Fluoranthene	mg/kg	< 0.5	0.5	Pass	
Fluorene	mg/kg	< 0.5	0.5	Pass	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.5	0.5	Pass	
Naphthalene	mg/kg	< 0.5	0.5	Pass	
Phenanthrene	mg/kg	< 0.5	0.5	Pass	
Pyrene	mg/kg	< 0.5	0.5	Pass	
Method Blank					
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides					
Chlordanes - Total	mg/kg	< 0.1	0.1	Pass	
4,4'-DDD	mg/kg	< 0.05	0.05	Pass	
4,4'-DDE	mg/kg	< 0.05	0.05	Pass	
4,4'-DDT	mg/kg	< 0.05	0.05	Pass	
a-BHC	mg/kg	< 0.05	0.05	Pass	
Aldrin	mg/kg	< 0.05	0.05	Pass	
b-BHC	mg/kg	< 0.05	0.05	Pass	
d-BHC	mg/kg	< 0.05	0.05	Pass	
Dieldrin	mg/kg	< 0.05	0.05	Pass	

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Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1016	mg/kg	< 0.1			0.1	Pass	
Aroclor-1221	mg/kg	< 0.1			0.1	Pass	
Aroclor-1232	mg/kg	< 0.1			0.1	Pass	
Aroclor-1242	mg/kg	< 0.1			0.1	Pass	
Aroclor-1248	mg/kg	< 0.1			0.1	Pass	
Aroclor-1254	mg/kg	< 0.1			0.1	Pass	
Aroclor-1260	mg/kg	< 0.1			0.1	Pass	
Total PCB	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
2,4,5-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2,4,6-Trichlorophenol	mg/kg	< 1			1.0	Pass	
2,6-Dichlorophenol	mg/kg	< 0.5			0.5	Pass	
4-Chloro-3-methylphenol	mg/kg	< 1			1.0	Pass	
Pentachlorophenol	mg/kg	< 1			1.0	Pass	
Tetrachlorophenols - Total	mg/kg	< 1			1.0	Pass	
Method Blank							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4,6-dinitrophenol	mg/kg	< 20			20	Pass	
2-Methyl-4,6-dinitrophenol	mg/kg	< 5			5	Pass	
2-Methylphenol (o-Cresol)	mg/kg	< 0.2			0.2	Pass	
2-Nitrophenol	mg/kg	< 1			1.0	Pass	
2,4-Dimethylphenol	mg/kg	< 0.5			0.5	Pass	
2,4-Dinitrophenol	mg/kg	< 5			5	Pass	
3&4-Methylphenol (m&p-Cresol)	mg/kg	< 0.4			0.4	Pass	
4-Nitrophenol	mg/kg	< 5			5	Pass	
Dinoseb	mg/kg	< 20			20	Pass	
Phenol	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Cyanide (total)	mg/kg	< 5			5	Pass	
Fluoride	mg/kg	< 100			100	Pass	
Method Blank							
IWRG 621 Metals : Metals M12 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	

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Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Molybdenum	mg/kg	< 10			10	Pass	
Nickel	mg/kg	< 5			5	Pass	
Selenium	mg/kg	< 2			2	Pass	
Silver	mg/kg	< 5			5	Pass	
Tin	mg/kg	< 10			10	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	88			70-130	Pass	
TRH C10-C14	%	115			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons and MGT 100A							
Benzene	%	77			70-130	Pass	
Toluene	%	79			70-130	Pass	
Ethylbenzene	%	75			70-130	Pass	
m&p-Xylenes	%	78			70-130	Pass	
Xylenes - Total	%	78			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions LM-LTM-ORG2010							
TRH C6-C10	%	88			70-130	Pass	
TRH >C10-C16	%	115			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	100			70-130	Pass	
Acenaphthylene	%	105			70-130	Pass	
Anthracene	%	108			70-130	Pass	
Benz(a)anthracene	%	99			70-130	Pass	
Benzo(a)pyrene	%	117			70-130	Pass	
Benzo(b&j)fluoranthene	%	70			70-130	Pass	
Benzo(g,h,i)perylene	%	87			70-130	Pass	
Benzo(k)fluoranthene	%	91			70-130	Pass	
Chrysene	%	113			70-130	Pass	
Dibenz(a,h)anthracene	%	95			70-130	Pass	
Fluoranthene	%	104			70-130	Pass	
Fluorene	%	97			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	81			70-130	Pass	
Naphthalene	%	93			70-130	Pass	
Phenanthrene	%	99			70-130	Pass	
Pyrene	%	106			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4,4'-DDD	%	129			70-130	Pass	
4,4'-DDE	%	116			70-130	Pass	
4,4'-DDT	%	85			70-130	Pass	
a-BHC	%	78			70-130	Pass	
Aldrin	%	94			70-130	Pass	
b-BHC	%	123			70-130	Pass	
d-BHC	%	90			70-130	Pass	
Dieldrin	%	106			70-130	Pass	
Endosulfan I	%	102			70-130	Pass	

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Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endosulfan II	%	119			70-130	Pass	
Endosulfan sulphate	%	125			70-130	Pass	
Endrin	%	114			70-130	Pass	
Endrin aldehyde	%	120			70-130	Pass	
Endrin ketone	%	128			70-130	Pass	
g-BHC (Lindane)	%	86			70-130	Pass	
Heptachlor	%	90			70-130	Pass	
Heptachlor epoxide	%	98			70-130	Pass	
Hexachlorobenzene	%	85			70-130	Pass	
Methoxychlor	%	88			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls USEPA 8082 Polychlorinated Biphenyls							
Aroclor-1260	%	93			70-130	Pass	
LCS - % Recovery							
Phenols (Halogenated) USEPA 8270 Phenols							
2-Chlorophenol	%	99			30-130	Pass	
2,4-Dichlorophenol	%	84			30-130	Pass	
2,4,5-Trichlorophenol	%	104			30-130	Pass	
2,4,6-Trichlorophenol	%	80			30-130	Pass	
2,6-Dichlorophenol	%	116			30-130	Pass	
4-Chloro-3-methylphenol	%	117			30-130	Pass	
Pentachlorophenol	%	60			30-130	Pass	
Tetrachlorophenols - Total	%	69			30-130	Pass	
LCS - % Recovery							
Phenols (non-Halogenated) USEPA 8270 Phenols							
2-Cyclohexyl-4,6-dinitrophenol	%	49			30-130	Pass	
2-Methyl-4,6-dinitrophenol	%	76			30-130	Pass	
2-Methylphenol (o-Cresol)	%	65			30-130	Pass	
2-Nitrophenol	%	99			30-130	Pass	
2,4-Dimethylphenol	%	102			30-130	Pass	
2,4-Dinitrophenol	%	30			30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	%	107			30-130	Pass	
4-Nitrophenol	%	97			30-130	Pass	
Dinoseb	%	40			30-130	Pass	
Phenol	%	101			30-130	Pass	
LCS - % Recovery							
Cyanide (total)	%	89			70-130	Pass	
Fluoride	%	74			70-130	Pass	
LCS - % Recovery							
IWRG 621 Metals : Metals M12 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	%	91			80-120	Pass	
Cadmium	%	92			80-120	Pass	
Chromium	%	96			80-120	Pass	
Copper	%	96			80-120	Pass	
Lead	%	97			80-120	Pass	
Mercury	%	105			75-125	Pass	
Molybdenum	%	94			80-120	Pass	
Nickel	%	94			80-120	Pass	
Selenium	%	94			80-120	Pass	
Silver	%	90			80-120	Pass	
Tin	%	92			80-120	Pass	
Zinc	%	96			80-120	Pass	

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Test	Lab Sample ID	QA Source	Units	Result 1	Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1			
TRH C6-C9	M13-Oc03819	NCP	%	88		70-130	Pass
Spike - % Recovery							
BTEX				Result 1			
Benzene	M13-Oc03819	NCP	%	75		70-130	Pass
Toluene	M13-Oc03819	NCP	%	79		70-130	Pass
Ethylbenzene	M13-Oc03819	NCP	%	75		70-130	Pass
m&p-Xylenes	M13-Oc03819	NCP	%	78		70-130	Pass
o-Xylene	M13-Oc03819	NCP	%	75		70-130	Pass
Xylenes - Total	M13-Oc03819	NCP	%	77		70-130	Pass
Spike - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1			
TRH C10-C14	M13-Oc03229	NCP	%	97		70-130	Pass
Spike - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1			
TRH >C10-C16	M13-Oc03229	NCP	%	97		70-130	Pass
Spike - % Recovery							
Polycyclic Aromatic Hydrocarbons				Result 1			
Acenaphthene	M13-Oc03988	CP	%	121		70-130	Pass
Acenaphthylene	M13-Oc03988	CP	%	126		70-130	Pass
Anthracene	M13-Oc03988	CP	%	128		70-130	Pass
Benz(a)anthracene	M13-Oc03988	CP	%	123		70-130	Pass
Benzo(a)pyrene	M13-Oc03988	CP	%	106		70-130	Pass
Benzo(b&j)fluoranthene	M13-Oc03988	CP	%	100		70-130	Pass
Benzo(g,h,i)perylene	M13-Oc03988	CP	%	104		70-130	Pass
Benzo(k)fluoranthene	M13-Oc03988	CP	%	108		70-130	Pass
Chrysene	M13-Oc03988	CP	%	101		70-130	Pass
Dibenz(a,h)anthracene	M13-Oc03988	CP	%	105		70-130	Pass
Fluoranthene	M13-Oc03988	CP	%	122		70-130	Pass
Fluorene	M13-Oc03988	CP	%	122		70-130	Pass
Indeno(1,2,3-cd)pyrene	M13-Oc03988	CP	%	102		70-130	Pass
Naphthalene	M13-Oc03988	CP	%	112		70-130	Pass
Phenanthrene	M13-Oc03988	CP	%	126		70-130	Pass
Pyrene	M13-Oc03988	CP	%	125		70-130	Pass
Spike - % Recovery							
Organochlorine Pesticides				Result 1			
4,4'-DDD	M13-Oc03988	CP	%	116		70-130	Pass
4,4'-DDE	M13-Oc03988	CP	%	125		70-130	Pass
4,4'-DDT	M13-Oc03988	CP	%	90		70-130	Pass
a-BHC	M13-Oc03988	CP	%	80		70-130	Pass
Aldrin	M13-Oc03988	CP	%	105		70-130	Pass
b-BHC	M13-Oc03988	CP	%	116		70-130	Pass
d-BHC	M13-Oc03988	CP	%	90		70-130	Pass
Dieldrin	M13-Oc03988	CP	%	115		70-130	Pass
Endosulfan I	M13-Oc03988	CP	%	112		70-130	Pass
Endosulfan II	M13-Oc03988	CP	%	126		70-130	Pass
Endosulfan sulphate	M13-Oc03988	CP	%	126		70-130	Pass
Endrin	M13-Oc03988	CP	%	119		70-130	Pass
Endrin aldehyde	M13-Oc03988	CP	%	117		70-130	Pass
Endrin ketone	M13-Oc03988	CP	%	128		70-130	Pass
g-BHC (Lindane)	M13-Oc03988	CP	%	89		70-130	Pass
Heptachlor	M13-Oc03988	CP	%	95		70-130	Pass
Heptachlor epoxide	M13-Oc03988	CP	%	109		70-130	Pass
Hexachlorobenzene	M13-Oc03988	CP	%	93		70-130	Pass

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Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Methoxychlor	M13-Oc03988	CP	%	88		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1260	M13-Oc03988	CP	%	111		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M13-Oc03988	CP	%	130		30-130	Pass	
2,4-Dichlorophenol	M13-Oc03988	CP	%	125		30-130	Pass	
2,4,5-Trichlorophenol	M13-Oc03988	CP	%	110		30-130	Pass	
2,4,6-Trichlorophenol	M13-Oc03988	CP	%	108		30-130	Pass	
2,6-Dichlorophenol	M13-Oc03988	CP	%	106		30-130	Pass	
4-Chloro-3-methylphenol	M13-Oc03988	CP	%	115		30-130	Pass	
Pentachlorophenol	M13-Oc03988	CP	%	111		30-130	Pass	
Tetrachlorophenols - Total	M13-Oc03988	CP	%	105		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M13-Oc03988	CP	%	30		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M13-Oc03988	CP	%	110		30-130	Pass	
2-Methylphenol (o-Cresol)	M13-Oc03988	CP	%	96		30-130	Pass	
2-Nitrophenol	M13-Oc03988	CP	%	129		30-130	Pass	
2,4-Dimethylphenol	M13-Oc03988	CP	%	128		30-130	Pass	
2,4-Dinitrophenol	M13-Oc03988	CP	%	42		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M13-Oc03988	CP	%	105		30-130	Pass	
4-Nitrophenol	M13-Oc03988	CP	%	101		30-130	Pass	
Dinoseb	M13-Oc03988	CP	%	69		30-130	Pass	
Phenol	M13-Oc03988	CP	%	126		30-130	Pass	
Spike - % Recovery								
				Result 1				
Cyanide (total)	M13-Oc03142	NCP	%	98		70-130	Pass	
Spike - % Recovery								
IWRG 621 Metals : Metals M12				Result 1				
Mercury	M13-Oc03988	CP	%	109		70-130	Pass	
Spike - % Recovery								
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1				
TRH C6-C10	M13-Oc03819	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	M13-Oc03998	CP	%	121		70-130	Pass	
Acenaphthylene	M13-Oc03998	CP	%	125		70-130	Pass	
Anthracene	M13-Oc03998	CP	%	101		70-130	Pass	
Benz(a)anthracene	M13-Oc03998	CP	%	120		70-130	Pass	
Benzo(a)pyrene	M13-Oc03998	CP	%	107		70-130	Pass	
Benzo(b&j)fluoranthene	M13-Oc03998	CP	%	90		70-130	Pass	
Benzo(g,h,i)perylene	M13-Oc03998	CP	%	102		70-130	Pass	
Benzo(k)fluoranthene	M13-Oc03998	CP	%	106		70-130	Pass	
Chrysene	M13-Oc03998	CP	%	108		70-130	Pass	
Dibenz(a,h)anthracene	M13-Oc03998	CP	%	113		70-130	Pass	
Fluoranthene	M13-Oc03998	CP	%	123		70-130	Pass	
Fluorene	M13-Oc03998	CP	%	121		70-130	Pass	
Indeno(1,2,3-cd)pyrene	M13-Oc03998	CP	%	97		70-130	Pass	
Naphthalene	M13-Oc03998	CP	%	114		70-130	Pass	
Phenanthrene	M13-Oc03998	CP	%	118		70-130	Pass	
Pyrene	M13-Oc03998	CP	%	128		70-130	Pass	
Spike - % Recovery								
Organochlorine Pesticides				Result 1				

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Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
4.4'-DDD	M13-Oc03998	CP	%	125		70-130	Pass	
4.4'-DDE	M13-Oc03998	CP	%	112		70-130	Pass	
4.4'-DDT	M13-Oc03998	CP	%	87		70-130	Pass	
a-BHC	M13-Oc03998	CP	%	128		70-130	Pass	
Aldrin	M13-Oc03998	CP	%	118		70-130	Pass	
b-BHC	M13-Oc03998	CP	%	128		70-130	Pass	
d-BHC	M13-Oc03998	CP	%	128		70-130	Pass	
Dieldrin	M13-Oc03998	CP	%	110		70-130	Pass	
Endosulfan I	M13-Oc03998	CP	%	122		70-130	Pass	
Endosulfan II	M13-Oc03998	CP	%	115		70-130	Pass	
Endosulfan sulphate	M13-Oc03998	CP	%	113		70-130	Pass	
Endrin	M13-Oc03998	CP	%	117		70-130	Pass	
Endrin aldehyde	M13-Oc03998	CP	%	106		70-130	Pass	
Endrin ketone	M13-Oc03998	CP	%	106		70-130	Pass	
g-BHC (Lindane)	M13-Oc03998	CP	%	122		70-130	Pass	
Heptachlor	M13-Oc03998	CP	%	116		70-130	Pass	
Heptachlor epoxide	M13-Oc03998	CP	%	124		70-130	Pass	
Hexachlorobenzene	M13-Oc03998	CP	%	120		70-130	Pass	
Methoxychlor	M13-Oc03998	CP	%	96		70-130	Pass	
Spike - % Recovery								
Polychlorinated Biphenyls				Result 1				
Aroclor-1260	M13-Oc03998	CP	%	125		70-130	Pass	
Spike - % Recovery								
Phenols (Halogenated)				Result 1				
2-Chlorophenol	M13-Oc03998	CP	%	122		30-130	Pass	
2,4-Dichlorophenol	M13-Oc03998	CP	%	108		30-130	Pass	
2,4,5-Trichlorophenol	M13-Oc03998	CP	%	105		30-130	Pass	
2,4,6-Trichlorophenol	M13-Oc03998	CP	%	104		30-130	Pass	
2,6-Dichlorophenol	M13-Oc03998	CP	%	105		30-130	Pass	
4-Chloro-3-methylphenol	M13-Oc03998	CP	%	111		30-130	Pass	
Pentachlorophenol	M13-Oc03998	CP	%	106		30-130	Pass	
Tetrachlorophenols - Total	M13-Oc03998	CP	%	101		30-130	Pass	
Spike - % Recovery								
Phenols (non-Halogenated)				Result 1				
2-Cyclohexyl-4,6-dinitrophenol	M13-Oc03998	CP	%	52		30-130	Pass	
2-Methyl-4,6-dinitrophenol	M13-Oc03998	CP	%	106		30-130	Pass	
2-Methylphenol (o-Cresol)	M13-Oc03998	CP	%	85		30-130	Pass	
2-Nitrophenol	M13-Oc03998	CP	%	123		30-130	Pass	
2,4-Dimethylphenol	M13-Oc03998	CP	%	124		30-130	Pass	
2,4-Dinitrophenol	M13-Oc03998	CP	%	33		30-130	Pass	
3&4-Methylphenol (m&p-Cresol)	M13-Oc03998	CP	%	102		30-130	Pass	
4-Nitrophenol	M13-Oc03998	CP	%	117		30-130	Pass	
Dinoseb	M13-Oc03998	CP	%	61		30-130	Pass	
Phenol	M13-Oc03998	CP	%	128		30-130	Pass	
Spike - % Recovery								
				Result 1				
Fluoride	M13-Oc03998	CP	%	77		70-130	Pass	
Spike - % Recovery								
IWRG 621 Metals : Metals M12				Result 1				
Arsenic	M13-Oc03998	CP	%	86		75-125	Pass	
Cadmium	M13-Oc03998	CP	%	99		75-125	Pass	
Chromium	M13-Oc03998	CP	%	95		75-125	Pass	
Copper	M13-Oc03998	CP	%	108		75-125	Pass	
Lead	M13-Oc03998	CP	%	101		75-125	Pass	
Mercury	M13-Oc03998	CP	%	108		70-130	Pass	

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Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Molybdenum	M13-Oc03998	CP	%	101			75-125	Pass	
Nickel	M13-Oc03998	CP	%	101			75-125	Pass	
Selenium	M13-Oc03998	CP	%	92			75-125	Pass	
Silver	M13-Oc03998	CP	%	75			75-125	Pass	
Tin	M13-Oc03998	CP	%	103			75-125	Pass	
Zinc	M13-Oc03998	CP	%	102			75-125	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M13-Oc03982	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	M13-Oc03982	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	M13-Oc03982	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	M13-Oc03982	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	M13-Oc03982	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	M13-Oc03982	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	M13-Oc03982	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	M13-Oc03982	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M13-Oc03982	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	M13-Oc03982	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C10-C14	M13-Oc03229	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M13-Oc03229	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	M13-Oc03229	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
TRH >C10-C16	M13-Oc03229	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M13-Oc03229	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	M13-Oc03229	NCP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g,h,i)perylene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a,h)anthracene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

Duplicate								
Organochlorine Pesticides				Result 1	Result 2	RPD		
4,4'-DDD	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDE	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
4,4'-DDT	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
a-BHC	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Aldrin	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
b-BHC	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
d-BHC	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Dieldrin	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan I	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan II	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endosulfan sulphate	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin aldehyde	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Endrin ketone	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
g-BHC (Lindane)	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Heptachlor epoxide	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Hexachlorobenzene	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Methoxychlor	M13-Oc03988	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass
Toxaphene	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Polychlorinated Biphenyls				Result 1	Result 2	RPD		
Aroclor-1016	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1221	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1232	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1242	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1248	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1254	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Aroclor-1260	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Total PCB	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass
Duplicate								
Phenols (Halogenated)				Result 1	Result 2	RPD		
2-Chlorophenol	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dichlorophenol	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4,5-Trichlorophenol	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4,6-Trichlorophenol	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,6-Dichlorophenol	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chloro-3-methylphenol	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
Pentachlorophenol	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
Tetrachlorophenols - Total	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
Duplicate								
Phenols (non-Halogenated)				Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M13-Oc03988	CP	mg/kg	< 20	< 20	<1	30%	Pass
2-Methyl-4,6-dinitrophenol	M13-Oc03988	CP	mg/kg	< 5	< 5	<1	30%	Pass
2-Methylphenol (o-Cresol)	M13-Oc03988	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass
2-Nitrophenol	M13-Oc03988	CP	mg/kg	< 1	< 1	<1	30%	Pass
2,4-Dimethylphenol	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2,4-Dinitrophenol	M13-Oc03988	CP	mg/kg	< 5	< 5	<1	30%	Pass
3&4-Methylphenol (m&p-Cresol)	M13-Oc03988	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass
4-Nitrophenol	M13-Oc03988	CP	mg/kg	< 5	< 5	<1	30%	Pass
Dinoseb	M13-Oc03988	CP	mg/kg	< 20	< 20	<1	30%	Pass
Phenol	M13-Oc03988	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

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Duplicate					Result 1	Result 2	RPD		
Cyanide (total)	M13-Oc03988	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
IWRG 621 Metals : Metals M12					Result 1	Result 2	RPD		
Mercury	M13-Oc03988	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions					Result 1	Result 2	RPD		
TRH C6-C9	M13-Oc03997	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
BTEX					Result 1	Result 2	RPD		
Benzene	M13-Oc03997	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Toluene	M13-Oc03997	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Ethylbenzene	M13-Oc03997	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
m&p-Xylenes	M13-Oc03997	CP	mg/kg	< 0.2	< 0.2	< 1	30%	Pass	
o-Xylene	M13-Oc03997	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Xylenes - Total	M13-Oc03997	CP	mg/kg	< 0.3	< 0.3	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
Total Recoverable Hydrocarbons - 2013 NEPM Fractions					Result 1	Result 2	RPD		
Naphthalene	M13-Oc03997	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
TRH C6-C10	M13-Oc03997	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
TRH C6-C10 less BTEX (F1)	M13-Oc03997	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
Fluoride	M13-Oc03997	CP	mg/kg	< 100	< 100	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
Polycyclic Aromatic Hydrocarbons					Result 1	Result 2	RPD		
Acenaphthene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Acenaphthylene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Anthracene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Benz(a)anthracene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Benzo(a)pyrene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Benzo(b&j)fluoranthene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Benzo(g,h,i)perylene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Benzo(k)fluoranthene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Chrysene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Dibenz(a,h)anthracene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Fluoranthene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Fluorene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Indeno(1,2,3-cd)pyrene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Naphthalene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Phenanthrene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Pyrene	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Duplicate					Result 1	Result 2	RPD		
Organochlorine Pesticides					Result 1	Result 2	RPD		
Chlordanes - Total	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
4,4'-DDD	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
4,4'-DDE	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
4,4'-DDT	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
a-BHC	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Aldrin	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
b-BHC	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
d-BHC	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Dieldrin	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Endosulfan I	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Endosulfan II	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	

Duplicate									
Organochlorine Pesticides					Result 1	Result 2	RPD		
Endosulfan sulphate	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Endrin	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Endrin aldehyde	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Endrin ketone	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
g-BHC (Lindane)	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Heptachlor	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Heptachlor epoxide	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Hexachlorobenzene	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Methoxychlor	M13-Oc03998	CP	mg/kg	< 0.05	< 0.05	< 1	30%	Pass	
Toxaphene	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls					Result 1	Result 2	RPD		
Aroclor-1016	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1221	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1232	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1242	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1248	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1254	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Aroclor-1260	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Total PCB	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	
Duplicate									
Phenols (Halogenated)					Result 1	Result 2	RPD		
2-Chlorophenol	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
2,4-Dichlorophenol	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
2,4,5-Trichlorophenol	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
2,4,6-Trichlorophenol	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
2,6-Dichlorophenol	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
4-Chloro-3-methylphenol	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
Pentachlorophenol	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
Tetrachlorophenols - Total	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
Duplicate									
Phenols (non-Halogenated)					Result 1	Result 2	RPD		
2-Cyclohexyl-4,6-dinitrophenol	M13-Oc03998	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
2-Methyl-4,6-dinitrophenol	M13-Oc03998	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
2-Methylphenol (o-Cresol)	M13-Oc03998	CP	mg/kg	< 0.2	< 0.2	< 1	30%	Pass	
2-Nitrophenol	M13-Oc03998	CP	mg/kg	< 1	< 1	< 1	30%	Pass	
2,4-Dimethylphenol	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
2,4-Dinitrophenol	M13-Oc03998	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
3&4-Methylphenol (m&p-Cresol)	M13-Oc03998	CP	mg/kg	< 0.4	< 0.4	< 1	30%	Pass	
4-Nitrophenol	M13-Oc03998	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
Dinoseb	M13-Oc03998	CP	mg/kg	< 20	< 20	< 1	30%	Pass	
Phenol	M13-Oc03998	CP	mg/kg	< 0.5	< 0.5	< 1	30%	Pass	
Duplicate									
					Result 1	Result 2	RPD		
Cyanide (total)	M13-Oc03998	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
Fluoride	M13-Oc03998	CP	mg/kg	< 100	< 100	< 1	30%	Pass	
Duplicate									
IWRG 621 Metals : Metals M12					Result 1	Result 2	RPD		
Arsenic	M13-Oc03998	CP	mg/kg	25	29	16	30%	Pass	
Cadmium	M13-Oc03998	CP	mg/kg	0.5	0.5	4.0	30%	Pass	
Chromium	M13-Oc03998	CP	mg/kg	17	14	20	30%	Pass	
Copper	M13-Oc03998	CP	mg/kg	< 5	< 5	< 1	30%	Pass	
Lead	M13-Oc03998	CP	mg/kg	< 5	6.6	35	30%	Fail	Q15
Mercury	M13-Oc03998	CP	mg/kg	< 0.1	< 0.1	< 1	30%	Pass	

Duplicate									
IWRG 621 Metals : Metals M12				Result 1	Result 2	RPD			
Molybdenum	M13-Oc03998	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Nickel	M13-Oc03998	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Selenium	M13-Oc03998	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Silver	M13-Oc03998	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Tin	M13-Oc03998	CP	mg/kg	< 10	< 10	<1	30%	Pass	
Zinc	M13-Oc03998	CP	mg/kg	< 5	< 5	<1	30%	Pass	

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Comments

Sample Integrity

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

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
Q15	The RPD reported passes Eurofins mgt's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Authorised By

Andrew Thexton	Client Services
Carroll Lee	Senior Analyst-Volatile (VIC)
Emily Rosenberg	Senior Analyst-Metal (VIC)
Huong Le	Senior Analyst-Inorganic (VIC)
Stacey Jenkins	Senior Analyst-Organic (VIC)



Glenn Jackson

Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Uncertainty data is available on request

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APPENDIX D**Site Inspection Photographs**

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280 EVANS ROAD, CRANBOURNE WEST - Environmental Site Assessment



Photo 1: Saturated ground surface.



Photo 2: View of Borehole 7.



Photo 3: View of site.

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Photo 4: Typical Borehole through Fill.



Photo 5: Typical Fill material.



Photo 6: View of Borehole 6.

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Title Photographs

Locality 280 Evans Road

Cranbourne West, Victoria

Dwg. No 130479/2 Photos

Prepared by HD 10/10/2013

Checked PA 21/10/2013

Environmental Site Inspection

Investigation date: 2/10/2013

Project: 130479 Evans Rd/2

Sheet No Photo 1

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280 EVANS ROAD, CRANBOURNE WEST - Environmental Site Assessment



Photo 7: View of Borehole 8.



Photo 8: View of Borehole 9.

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Photo 9: Typical Borehole & excavator material.



Photo 10: View of Borehole 23.

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Photo 11: View of northern drain.

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Photo 12: View along front of house.



Photo 13: View towards Borehole 18 location.



Photo 14: View towards Borehole 14 location.

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Photo 15: View of shed near Borehole 15.



Photo 16: View towards Borehole 17 location.

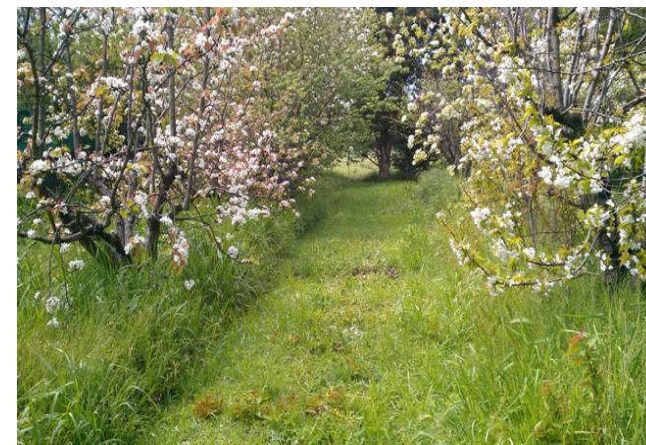


Photo 6: View towards Borehole 19 location.

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Checked PA 21/10/2013

Environmental Site Inspection

Investigation date: 3/10/2013

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APPENDIX E

Geoaquitarads Environmental Stage 1 Preliminary Site Investigation Report

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