APPENDIX H

JBS&G (50419-60498)

12 January 2015

Johnny & Joseph Chung
TH & TH Chung
Suite 107, 243 Pyrmont St
PYRMONT NSW 2009
C/- James Hsieh
Via email: hcom@optusnet.com.au

Lease Baseline Contamination Assessment – Part Lot 8 in DP DP1039882, 191 Miller Road Chester Hill, NSW

Dear Johnny and Joseph,

1. Introduction and Background

JBS&G Australia Pty Ltd (JBS&G) was requested by TH & TH Chung (the client) c/- of James Hsieh to complete a new lease baseline assessment for the industrial property known as Part Lot 8 in DP1039882 located at 191 Miller Road, Chester Hill, NSW. It is understood that the site is to be leased to Builder Recycling Properties Pty Ltd who propose to operate a recycling business at the property under a new Environment Protection License issued by the NSW EPA.

2. Objective

The objective of the investigation was to characterise site surface soil contamination conditions at the commencement of a new lease contract to a suitable level of confidence that future assessment(s) may evaluate the potential for site activities during the lease period to have resulted in material contamination of the site.

3. Scope of Works

The scope of works comprised:

- A review of available site history and background information;
- Installation of 16 test pits on an approximately even sampling grid across the proposed lease area to obtain samples of surface and near surface soils (access did not allow the installation of 4 of the 20 testpits, as proposed) [1];
- Analysis of selected soil samples at a laboratory NATA accredited for analysis for a broad range of contaminants of potential concern (COPC);
- Comparison of collected data against relevant endorsed criteria[2]; and
- Preparation of a baseline contamination assessment letter report presenting the results of the current works to provide an indication of current soil conditions prior to the proposed lease operations for comparison at the end of the lease agreement.

[1] Drain water and a yellow mineral solid sample were also collected and analysed at the request of the site contact.
[2] This is a lease baseline assessment only. Reference is made to site suitability criteria, although the limited scope/sampling density of this investigation does not allow for conclusions on site suitability.

4. Site History

According to TSA (2006[3]), the site has been utilised in the past for a range of industrial purposes primarily associated with chemical and fertiliser manufacturing.

In 2002 the site was remediated, with a number of buildings demolished. Following remedial works, the site was validated and confirmed as suitable for continued commercial/industrial land use, based on consideration of guidelines provided in the *Contaminated Land Management (CLM) Act* (HLA 2002[4]). An associated Site Audit Statement (SAS) (CH2M 2002[5]) determined that the site was suitable for continued commercial/industrial use subject to compliance of the adopted Site Management Plan (SMP) (HLA 2002).

JBS Environmental performed a Lease Baseline Contamination Assessment (JBS 2008[6]) of the site in 2008, which reported detections of various heavy metals, organochlorine pesticides, petroleum hydrocarbons and poly aromatic hydrocarbons including benzo(a)pyrene.

According to HLA (2002), the site is zoned for commercial/industrial use.

5. Data Quality Objectives

Data Quality Objectives (DQOs) were established for the assessment works, as described in the following sections.

5.1 State the Problem

The current contamination status of the site is unknown. The site has historically been associated with commercial/industrial uses, and has been the subject of a SAS and SMP. The site is proposed to be developed for continued commercial/industrial use (recycling business). Characterisation of the site surface soil contamination conditions was undertaken at the commencement of the new lease contract to allow future assessment(s) to suitably evaluate the potential for site activities during the lease period to have resulted in material contamination of the site.

In addition, during the field investigations JBS&G were requested by the client contact onsite (Danny Ghallaher) to collect for analysis a sample of water from a stormwater collection sump and a sample of a yellow mineral solid suspected of being sulfur reportedly collected from the stormwater drain but also found in limited locations in near-surface soils on the site.

5.2 Identify the Decision

The following specific decisions were required to be made as part of these investigations:

- Have levels of potential contaminants at the site been appropriately characterised and recorded?
- What levels of potential contaminants are present in the surface and near surface soil at the site?

5.3 Identify Inputs to the Decision

Inputs to the decisions included:

- Review of available documentation applicable to the site;
- Collection of surface and near surface soil samples;

[3] *Traffic Impact Statement – Proposed Metal Recycling Facility, 191 Miller Road Chester Hill NSW, 2006*. Thompson Stanbury Associates (TSA 2006)
[4] *Site Management Plan – 191 Miller Road Chester Hill NSW, 2002*. HLA Envirosciences Pty Limited (HLA 2002)
[5] *Site Audit Statement – 191 Miller Road Chester Hill NSW, 2006*. CH2M Hill Australia Pty Ltd (CH2M 2002)
[6] *Lease Baseline Contamination Assessment – Part Lot 8 DP1039882, 191 Miller Rd, Chester Hill, NSW, 2008*. JBS Environmental (JBS 2008)

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- Development of appropriate assessment criteria for evaluation of soil impacts;
- Laboratory analysis of samples of potentially contaminated media for COPC; and
- Confirmation that data generated by sample analysis are of sufficient quality to allow reliable comparison to assessment criteria as undertaken by assessment of quality assurance / quality control as per the data quality indicators.

5.4 Define the Study Boundaries

The study area is defined as 191 Miller Road, Chester Hill (Lot 8 in DP1039882) as shown in **Figure 2.**

The vertical extent of the soil investigation was to a maximum depth of 2.0 m.

Due to the nature of the COPC and with consideration to project deadline requirements, factors including temporal and seasonal variables were not assessed as part of this investigation. The temporal boundaries comprised the period of field investigation, being 11 December 2014.

5.5 Develop a Decision Rule

The decision rules are outlined as follows.

5.5.1 Characterisation of Potential Contaminants

The suitability of the characterisation assessment was determined using quality analysis, detailed in **Attachment 4**. The following rules were applied:

- If the quality analysis determined the data to be of sufficient quality, the characterisation assessment was suitable for the investigation objectives. Otherwise it was not.

5.5.2 Levels of Potential Contaminants in Surface and Near Surface Soils

Soil analytical data were compared to relevant criteria to determine the contamination status of surface and near-surface soils at the site:

- If concentrations of the potential contaminants in the samples collected from site exceeded concentrations detailed in the relevant criteria, the associated soil was determined to be contaminated. Otherwise, it was not.

5.6 Specify Limits on Decision Errors

This step is to establish the decision maker's tolerable limits on decision errors, which are used to establish performance goals for limiting uncertainty in the data. Data generated during this project must be appropriate to allow decisions to be made with confidence.

Specific limits for this project have been adopted in accordance with the appropriate guidance from the NSW EPA, NEPC (2013), appropriate indicators of data quality (DQIs used to assess quality assurance / quality control) and standard JBS&G procedures for field sampling and handling.

To assess the usability of the data prior to making decisions, the data were assessed against pre-determined DQIs for to precision, accuracy, representativeness, comparability, completeness and sensitivity (PARCCS parameters). The acceptable limit on decision error was adopted as 95% compliance with DQIs.

The pre-determined DQIs established for the project are discussed is **Attachment 4** in relation to the PARCCS parameters, and are shown in **Table A4.1** in **Attachment 4**.

5.7 Optimise the Design for Obtaining Data

The investigation activities were developed with due consideration to the previous 2008 lease baseline assessment (JBS 2008[7]).

[7] *Lease Baseline Contamination Assessment – Part Lot 8 DP1039882, 191 Miller Road, Chester Hill, NSW*. JBS Environmental Pty Ltd, 9 December 2008 (JBS 2008)

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The data collection requirements and sampling plan design for the assessment included 16 soil investigation locations placed across the site on a systematic grid, which was skewed where necessary (areas of suspected contamination, accessible areas, etc.). It is noted that 4 of the proposed testpits were not completed due to access restrictions, including certain parts of the central-southern area where excavation was not possible due to the presence of large stockpiles, and operational yards along the northern and western boundaries.

Additional locations (TP03-TP07) were placed in the north-western portion of the site, as anecdotal evidence from the site contact suggested that “contaminated” material was place/stockpiled there during past remedial activities.

Based upon the objectives of the investigation and the available site use information, the density of the investigation undertaken as part of this assessment was considered appropriate to facilitate decisions as necessary to meet the project objectives.

5.8 Sampling Methodology

Soil samples were collected via test excavations completed with a small tracked excavator. Sampling activities were toward near surface depths where it is anticipated future lease cessation assessments are the most likely to identify impacts associated with use of the site during the lease period. As such, soil samples were collected at the current ground surface (0.0-0.15 m) and then at depths of approximately 0.3 m, 0.5 m and 1.0 m, or 0.5 m into natural materials.

During the collection of soil samples, features such as seepage, discolouration, staining, odours and other indicators of contamination were noted on field reporting sheets and are recorded on borelogs provided as **Attachment 5.**

Collected samples were immediately transferred to laboratory supplied sample jars and 500 ml zip-lock asbestos bags. The sample jars were then transferred to a chilled ice box for sample preservation prior to and during shipment to the testing laboratory. A chain-of-custody form was completed and forwarded with the samples to the testing laboratory. Chain of custody forms are provided with laboratory documentation as **Attachment 6**. Based upon field observations, samples were analysed in accordance with the laboratory schedule (**Table 5.1**).

The water sample collected from the drain was sampled directly into water sample bottles/vials containing the appropriate preservatives, and immediately transferred into a chilled esky.

The mineral solid samples were placed into air-tight zip-lock bags and placed with the soil samples. One sample, comprising a large fragment of the material was received directly from the site contact, while the material was also noted in fill samples collected during test pit excavation.

5.8.1 Field PID Screening

Soil samples collected during the JBS&G sampling event were screened following works, due to poor weather during field works, using a photo-ionisation detector (PID) to assess the potential presence of VOCs including petroleum hydrocarbons. Samples obtained for PID screening were placed in a sealed plastic bag for a period of approximately 5 minutes to equilibrate, prior to a PID being attached to the bag. Readings were then monitored for a period of approximately 1 minute or until values stabilised and the stabilised/highest reading recorded on the borehole logs.

5.8.2 Soil Duplicate and Triplicate Sample Preparation

Field soil duplicate and triplicate samples for the investigation were obtained during sampling using the procedures outlined above at a frequency of 1 in 20 primary samples for both field intra-laboratory duplicates and field inter-laboratory duplicates. The soil samples were divided laterally into three samples with minimal disturbance to reduce the potential for loss of volatiles and placed in three clean glass jars and/or plastic bags. All jars were filled with no headspace to reduce the potential for loss of volatiles and separately labelled as the primary, duplicate and triplicate samples before being placed in the same chilled esky for laboratory transport.

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5.8.3 Soil Sampling Equipment Decontamination

The following procedures were used to clean non-disposable equipment prior to the collection of each sample:

- Scrubbing with a wire brush to remove gross contamination;
- Pressure spray with Decon 90 detergent and potable water mix;
- Pressure spray rinse with potable water; and
- Air drying.

Rinsate samples were obtained during field decontamination of reusable equipment. The rinsate sample was obtained by rinsing the reusable equipment (e.g. trowel) with laboratory grade demineralised water following the decontamination procedure. The water sample was then appropriately preserved and stored with the site soil samples prior to transport to the laboratory for chemical analysis.

5.9 Laboratory Analyses

JBS&G used Eurofins Pty Ltd at Lane Cove, NSW as the primary laboratory for the required analyses. The secondary laboratory was Envirolab Services Pty Ltd (Envirolab) at Chatswood, NSW. All laboratories are NATA accredited for the relevant analyses. In addition, the laboratories are required to meet JBS&G's internal QA/QC requirements.

Laboratory analysis of samples was conducted with reference to the investigation objectives. The analysis schedule is summarised in **Table 5.1**.

Table 5.1: Laboratory Analytical Schedule

Sample Type	No. of Sampling Locations	Analyses (exc. QA/QC)
Soil	16 test pit locations	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) – 25 samples PAH – 24 samples TRH/BTEX – 18 samples TRH/VOCs – 12 samples Asbestos – 24 samples OCPs/PCBs– 24 samples Sulfur – 1 sample
Water	1 sample	Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn) – 1 sample PAH – 1 sample TRH/BTEX – 1 sample OCPs/PCBs– 1 sample Sulfur – 1 sample
Mineral Solid	2 samples	Heavy Metals – 1 sample Sulfur – 2 samples

In addition to the above analyses, for QA/QC purposes field duplicates and triplicates will be analysed at a rate of 1/20 primary samples. Rinsate samples will be obtained from non-disposable sampling equipment, plus a single trip spike and single trip blank will accompany the soil sampling event.

6. Assessment Criteria

6.1 Regulatory Guidelines

The investigation was undertaken with consideration to aspects of the following guidelines, as relevant:

- *Contaminated Sites: Sampling Design Guidelines*, NSW EPA, 1995 (EPA 1995);
- *Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites*, NSW OEH, 2011 (OEH 2011);

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- *Contaminated Sites: Guidelines for the NSW Site Auditor Scheme*, 2nd Edition, NSW EPA, 2006 (DEC 2006);
- *National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013 (No. 1)*, National Environment Protection Council (NEPC 2013); and
- *Contaminated Sites: Guidelines on Duty to Report Contamination under the Contaminated Land Management Act 1997*, NSW DECC, June 2009 (DECC 2009).

6.2 Soil Criteria

The investigation was designed to provide a baseline assessment of the contamination status of the near-surface soil/fill and as such was not undertaken in strict accordance with published guidelines, which were prepared for the purposes of assessing site use suitability. Soil analytical data were, however, compared with relevant NEPC (2013) criteria for the purpose of characterising surface and sub-surface soil contamination at the site.

It is understood that the site is proposed to be developed for commercial/industrial (recycling business) uses. A "commercial/industrial" landuse exposure criteria scenario has therefore been adopted in development of health based screening criteria. The adopted criteria as presented in **Table 6.1** have been sourced from the following:

- Health based Investigation Levels (HILs) for commercial/industrial –HIL-D (NEPC 2013);
- Management Limits for TRH, coarse grained soils for commercial/industrial landuse (NEPC 2013); and
- Health Screening Levels (HSLs) for petroleum hydrocarbons considering potential for vapour intrusion, coarse grained soil for commercial/industrial landuse, at the most conservative level of 0.0-1.0 m depth (NEPC 2013);

The results of asbestos observations and analysis were assessed in general accordance with NEPC (2013) including DOH (2009[8]) guidance.

Table 6.1 Health Based Soil Investigation Criteria

	Limit of Reporting	Laboratory Method	Health Investigation/ Screening Levels Commercial/Industrial D (mg/kg)	Management Limits Commercial/ Industrial D (mg/kg)
METALS				
Arsenic	4.0	ICP-AES (USEPA 200.7)	3 000	-
Cadmium	0.4	ICP-AES (USEPA 200.7)	900	-
Chromium	1.0	ICP-AES (USEPA 200.7)	3 600[1]	-
Chromium (VI)	1.0	Alkali leach colorimetric (APHA3500-Cr/USEAP3060A)	3 600	-
Copper	1.0	ICP-AES (USEPA 200.7)	240 000	-
Nickel	1.0	ICP-AES (USEPA 200.7)	6 000	-
Lead	1.0	ICP-AES (USEPA 200.7)	1 500	-
Zinc	1.0	ICP-AES (USEPA 200.7)	400 000	-
Mercury (inorganic)	0.1	Cold Vapour ASS (USEPA 7471A)	730[2]	-
POLYCYCLIC AROMATIC HYDROCARBONS				
Carcinogenic PAHs (as B(a)P TEQ)[3]	0.028	GCMS (USEPA8270)	40	-
Total PAHs[4]	0.4	GCMS (USEPA8270)	4000	-
BTEX				
Benzene	1.0	Purge Trap-GCMS (USEPA8260)	3[6]	-
Toluene	1.0	Purge Trap-GCMS (USEPA8260)	-	-
Ethylbenzene	1.0	Purge Trap-GCMS (USEPA8260)	-	-

[8] *Guidelines for the Assessment Remediation and Management of Asbestos-Contaminated Sites in Western Australia May 2009*. Western Australia Department of Health (DOH) (DOH 2009)

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	Limit of Reporting	Laboratory Method	Health Investigation/ Screening Levels Commercial/Industrial D (mg/kg)	Management Limits Commercial/ Industrial D (mg/kg)
Total Xylenes	3.0	Purge Trap-GCMS (USEPA8260)	230	-
TOTAL RECOVERABLE HYDROCARBONS				
F1 C6-C10	10	TPH Purge Trap-GCMS (USEPA8260)	260[7]	700
F2 >C10-C16	50	TPH Purge Trap-GCMS (USEPA8260)	-	1000
F3 >C16-C34	100	Purge Trap-GCFID (USEPA8000)	-	3500
F4 >C34-C40	100	Purge Trap-GCFID (USEPA8000)	-	10 000
ORGANOCHLORINE PESTICIDES				
DDT + DDD + DDE	0.3	GCECD (USEPA8140,8080)	3600	-
Aldrin + Dieldrin	0.2	GCECD (USEPA8140,8080)	45	-
Chlordane	0.1	GCECD (USEPA8140,8080)	530	-
Endosulfan	0.3	GCECD (USEPA8140,8080)	2000	-
Endrin	0.1	GCECD (USEPA8140,8080)	100	-
Heptachlor	0.1	GCECD (USEPA8140,8080)	50	-
HCB	0.1	GCECD (USEPA8140,8080)	80	-
Methoxychlor	0.1	GCECD (USEPA8140,8080)	2500	-
PCBs				
Total PCBs	0.7	GCECD (USEPA8140,8080)	7	-
OTHER				
Asbestos	Presence	PLM / Dispersion Staining	No asbestos on the ground surface ACM must be less than 0.05% w/w Asbestos fibres/ fibrous asbestos must be less than 0.001%w/w	

Notes:
1. Guideline values presented are for Chromium (VI) in absence of total Chromium values. Where total Chromium results are elevated, samples will be analysed for Chromium (VI).
2. Guideline values are for inorganic mercury. Where elevated mercury concentrations are encountered and/or site information suggests the potential presence of elemental mercury and/or methyl mercury, consideration of applicability would be needed.
3. Carcinogenic PAHs calculated as per Benzo(a)pyrene Toxicity Equivalent Factor requirements presented in NEPC 2013
4. Total PAHs calculated as per requirements presented in NEPC 2013.
5. Management Limits are based on coarse grained soil, with F1 and F2 concentrations inclusive of naphthalene and BTEX compounds.
6. Soil Health Screening Levels for Vapour Intrusion: Sand Soils. Values presented are those for 0 to <1 m bgs as the most conservative level. Reference should be made to results tables for further detail of levels at greater depths. NL: Non-limiting.
7. Values for F1 C^6-C^9 are obtained by subtracting BTEX (Sum) from laboratory result for C^6-C^9 TRH.

7. Quality Assurance / Quality Control

An assessment of Quality Assurance / Quality Control (QA/QC) of the works has been undertaken in **Attachment 4**. The results of the field and laboratory QA/QC program indicates that the data obtained from the sampling and analysis can be considered appropriately accurate for the objectives of the assessment. However it should be noted that there is potential heterogeneity of contaminant distributions throughout fill based materials.

8. Results

8.1 Field Observations

Subsurface conditions encountered at the site during the field works are summarised below. Testpit logs and a table (**Table A5.1**) of geographical coordinates of the test pit locations are included as **Attachment 5**.

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Surface soils comprised brown silty clay fill material, which was overlain by approximately 0.2 m of sandy fill and/or roadbase gravels in some areas. Fill material generally extended to the program depth of 1.0 m bgs (below ground surface), although natural grey-brown silty clay was encountered at two locations, ranging from approximately 0.6 to 0.7 m bgs. Observed anthropogenic materials within fill included brick, concrete, plastic, timber and steel.

No soil staining, unusual discolouration or odours were noted in fill material or natural soil during the subsurface investigation, with the exception of suspected sulfur odours at TP11, where fragments of yellow mineral material suspected to include sulphur compounds were also observed.

No suspected asbestos containing materials (ACM) were identified at any testpit locations. PID readings were detected at all locations, with a maximum concentration of 0.4 ppm detected, as detailed on the borehole logs.

Water seepage was identified within six of the testpits, ranging from 0.4 to 1.0 m bgs. All testpits where water seepage was observed were located in the southern portion of the site.

The water sample was collected from a drain on the south-western boundary. The drain was approximately 1.5 m deep with a water level of approximately 0.3 m. The water in the drain was clear with a slight brown tinge, and a silt layer was present on the drain floor. Upgradient from the sampling location, the drain contained a weir/overflow.

The mineral solid suspected of being a sulfur compound was approximately 200 cm^3, hard, irregular shaped and bright yellow in colour.

8.2 Soil Analytical Results

Baseline levels of potential contaminants in soil samples are presented in **Table A** in **Attachment 3**. The soil sampling locations are shown in **Figure 2**. Detailed laboratory reports and chain of custody documentation is provided in **Attachment 6**.

Concentrations of COPCs in all analysed samples were below the adopted site criteria, with the exception of asbestos (discussed below).

8.2.1 Asbestos

Friable asbestos and/or asbestos fines were detected in soil samples collected from at TP06 (0.3 m), TP09 (0-0.15 m), TP16 (0-0.15 m), TP17 (0-0.15 m), TP18 (1.0 m) and TP20 (0-0.15 m) at concentrations that were greater than the criteria. Concentrations are shown on **Figure 3**. Asbestos was also detected in soil samples collected from TP05 (2.0 m), TP07 (2.0 m), TP18 (0-0.15) and TP19 (0.3 m), although at concentrations below the laboratory limit of reporting (LOR) of 0.001% w/w.

8.2.2 Sulfur

Suspected sulfur material was analysed for sulfur content, with reported concentrations ranging from 46 000 (TP14) to 69 000 (TP11) mg/kg. Soil from TP11 which contained suspected sulfur inclusions was also analysed, reporting a sulfur concentration of 1200 mg/kg.

8.3 Drain Water Sample

At the request of the client, a drain water grab sample was collected from the south-western boundary, as shown on **Figure 2**. The reported contaminant concentrations were below laboratory LOR, with the exception of some heavy metal concentrations, as shown in **Table 2**. Copper (39 µg/L), lead (100 µg/L), nickel (11 µg/L) and zinc (39 µg/L) additionally exceeded NEPC (2013) Groundwater investigation Levels (GILs) for Fresh Water.

Reported sulfur concentrations were below the laboratory LOR.

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9. Conclusions and Recommendations

9.1 Conclusions

Based on the results of this investigation, and subject to the limitations included as **Attachment 1**, the baseline soil contamination status of the site at the commencement of the lease period are shown in **Table A** in **Attachment 3**. The additional conclusions have been made:

- With the exception of fibrous asbestos, concentrations of the selected contaminants in the soil samples analysed were reported to be low and less than commercial/industrial criteria;
- Concentrations of fibrous asbestos/asbestos fine that exceeded the criteria for commercial/industrial land-use were detected at six locations, with asbestos detected at concentrations less than the laboratory limit of reporting (i.e. present in the soil samples) in a further four locations;
- A yellow solid reportedly collected from the stormwater drain, as well as being present in some soil samples, was found to contain high levels of sulfur; and
- Water collected from a storm water drain on the south-western boundary reported elevated levels of copper, lead, nickel and zinc.

9.2 Recommendations

It is recommended that the following be implemented:

- An Asbestos Management Plan due to the fibrous asbestos exceedences detected;
- Inclusion of the presence of asbestos in soil on a site asbestos register; and
- Assessment of the near surface soils prior to expiration of the current lease and comparison of the results with this baseline assessment.

Should you have any queries or require further clarification, please feel free to contact the undersigned on 02 8245 0300 or by email tcreese@jbsg.com.au.

Yours sincerely:

Tyler Creese
Environmental Consultant
JBS&G

Reviewed/Approved by:

Charlie Furr
Managing Principal
JBS&G

Attachments:
1) Limitations
2) Figures
3) Tables
4) Assessment of Quality Assurance/Quality Control
5) Borelogs and Decontamination Sheets
6) Laboratory Report and Chain of Custody Documentation

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Attachment 1 – Limitations

This report has been prepared for use by the client who has commissioned the works in accordance with the project brief only, and has been based in part on information obtained from the client and other parties.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by JBS&G, and should not be relied upon by other parties, who should make their own enquires.

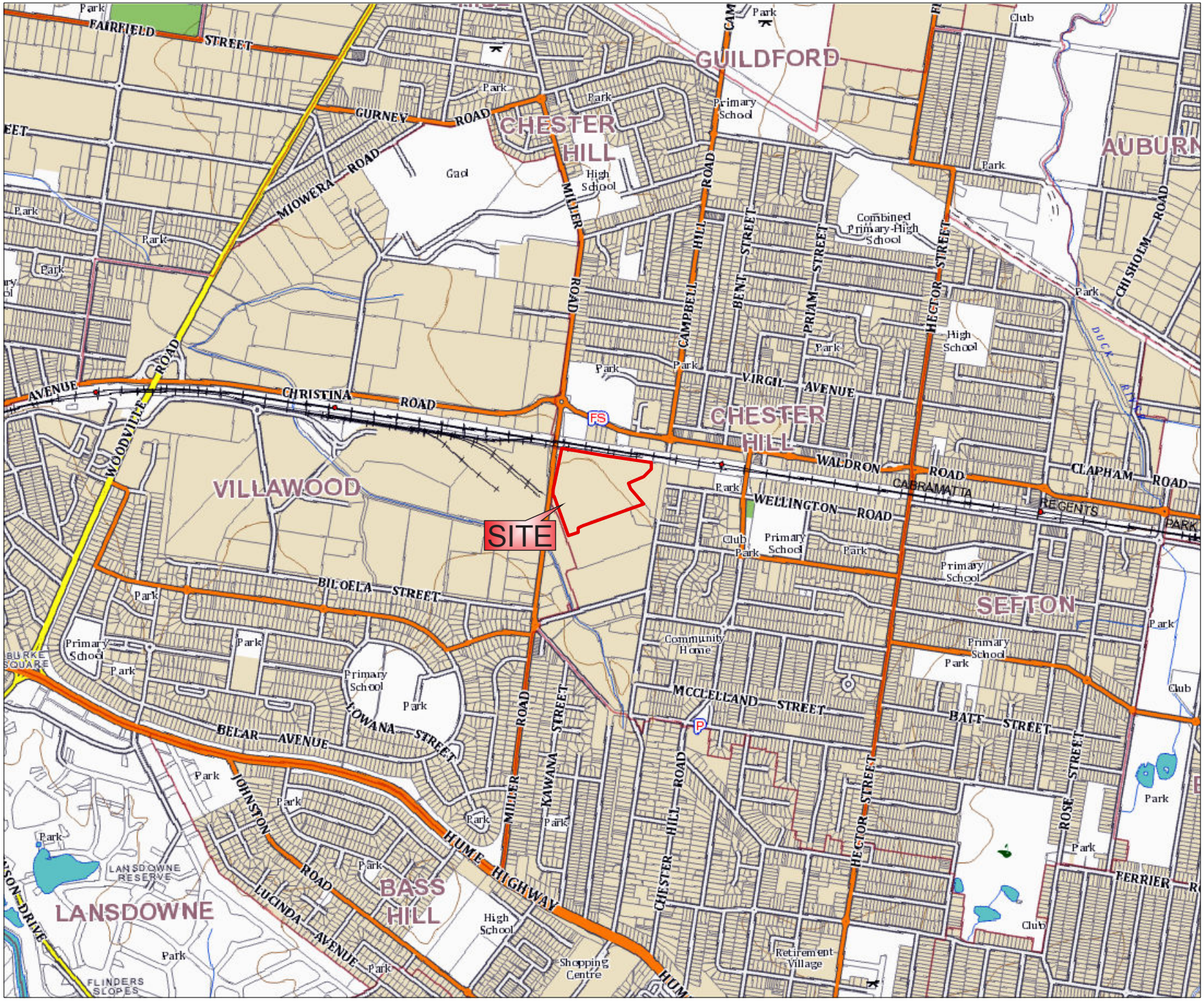
Sampling and chemical analysis of environmental media is based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate based on the regulatory requirements.

Limited sampling and laboratory analyses were undertaken as part of the investigations undertaken, as described herein. Ground conditions between sampling locations and media may vary, and this should be considered when extrapolating between sampling points. Chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

Changes to the subsurface conditions may occur subsequent to the investigations described herein, through natural processes or through the intentional or accidental addition of contaminants. The conclusions and recommendations reached in this report are based on the information obtained at the time of the investigations.

This report does not provide a complete assessment of the environmental status of the site, and it is limited to the scope defined herein. Should information become available regarding conditions at the site including previously unknown sources of contamination, JBS&G reserves the right to review the report in the context of the additional information.

Attachment 2 – Figures



Legend:

Approximate Site Boundary

JBS&G

Job No: 50419	
Client: TH & TH Chung	
Version: zMisc	Date: 06-Jan-2015
Drawn By: SE	Checked By: TC

Scale 1:18,000

0 210 420

metres

Coor. Sys. GDA 1994 MGA Zone 56

191 Miller Road
Chester Hill, NSW

SITE LOCATION

FIGURE 2

File Name: 50419_01
Reference: SIX Maps www.maps.six.nsw.gov.au, accessed 06-01-2015

Legend:

- Approximate Site Boundary
- Sample Location
- Drain Sample Location (water)

JBS&G

Job No: 50419

Client: TH & TH Chung

Version: zMisc	Date: 07-Jan-2015
Drawn By: SE	Checked By: TC

Scale 1:2,000

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

191 Miller Road
Chester Hill, NSW

SAMPLING LOCATIONS

FIGURE 2

File Name: 50419_02
Reference: Near Map www.nearmap.com.au, imagery date 21-11-2014, accessed 10-12-2014

Legend:

- Approximate Site Boundary
- Sample Location
- Drain Sample Location (water)

JBS&G

Job No: 50419

Client: TH & TH Chung

Version: zMisc	Date: 07-Jan-2015
Drawn By: SE	Checked By: TC

Scale 1:2,000

0 20 40
metres

Coor. Sys. GDA 1994 MGA Zone 56

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Chester Hill, NSW

ASBESTOS IN SOIL

FIGURE 3

File Name: 50419_03
Reference: Near Map www.nearmap.com.au, imagery date 21-11-2014, accessed 10-12-2014

Attachment 3 - Tables

	Metals & Metalloids								Polycyclic Aromatic Hydrocarbons																				BTEX						TRHs (NEPC 2013)					
	Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(a)pyrene TEQ (lower bound)*	Benzo(a)pyrene TEQ (medium bound)*	Benzo(a)pyrene TEQ (upper bound)*	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Carcinogenic PAHs as B(a)P TPE	Naphthalene	Phenanthrene	PAHs (Total)	Pyrene	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL	2	0.4	1	1	1	0.05	1	1	0.1	0.1	0.1	0.1	0.05	0.5	0.5	0.5	0.5	0.1	0.5	0.1	0.1	0.1	0.1	0.1		0.1	0.1	0.5	0.1	0.1	0.1	0.1	0.2	0.1	0.3	20	50	100	100	20	50
NEPC 2013 Management Limits - Commercial and Industrial, Coarse																																			700	1000	3500	10,000		
NEPC 2013 Soil HIL D	3000	900		240,000	1500	730	6000	400,000																	40			4000												
NEPC 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																														3				230					260	
Field ID	**Depth**	**Date**																																						
TP01 0-0.15M	0-0.15	11/12/2014	<2	<0.4	29	69	<5	<0.05	190	87	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP01 1.0M	1	11/12/2014	5.5	<0.4	24	80	32	0.06	82	190	0.7	1.1	4	8	9.1	14	14	14	8.2	7.5	8.4	7.6	1.3	22	1.4	6.2	13.63	<0.5	17	120	20	-	-	-	-	-	-	-	-	-	-	-	-
TP03 0-0.15M	0-0.15	11/12/2014	7.6	1.9	22	72	130	0.17	15	680	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	0.605	<0.5	<0.5	1.3	0.6	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP04 0.3M	0.3	11/12/2014	9.4	1.4	37	150	180	0.21	28	1100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP05 0.5M	0.5	11/12/2014	6.9	<0.4	26	65	120	0.09	23	250	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP05 2.0M	2	11/12/2014	7.4	<0.4	32	50	200	0.07	18	160	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
TP06 0.3M	0.3	11/12/2014	7.6	3.3	93	800	1300	0.29	49	8100	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	0.605	<0.5	<0.5	1.7	0.8	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	120	<100	<20	<50
TP07 2.0M	2	11/12/2014	7.6	1.7	53	42	45	<0.05	12	120	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
TP09 0-0.15M	0-0.15	11/12/2014	3.6	<0.4	16	25	48	0.06	9.6	74	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	<0.5	0.605	<0.5	<0.5	1.7	0.8	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP10 0-0.15	0-0.15	11/12/2014	5	<0.4	13	18	60	0.06	6.8	79	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP11 0-0.15M	0-0.15	11/12/2014	2.3	<0.4	6.8	13	28	<0.05	<5	61	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP11 1.0M	1	11/12/2014	67	<0.4	18	26	41	<0.05	7.1	45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
TP12 0.3	0.3	11/12/2014	9.8	<0.4	23	25	16	<0.05	9.6	19	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP014 0-0.15M	0-0.15	11/12/2014	4.8	<0.4	9.2	17	21	<0.05	5.6	37	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP16 0-0.15	0-0.15	11/12/2014	3.4	<0.4	8.7	21	55	0.09	5.3	93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP16 0.5	0.5	11/12/2014	3.9	<0.4	6.9	12	14	0.05	13	67	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
TP17 0-0.15	0-0.15	11/12/2014	4.3	<0.4	10	22	62	0.08	7.7	140	0.6	<0.5	1.9	1.8	1.6	2.1	2.4	2.6	1.3	0.8	1.4	1.5	<0.5	6.2	0.7	0.8	2.403	<0.5	6.5	30	5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	160	<100	<20	<50
TP17 1.0	1	11/12/2014	4.1	<0.4	13	18	42	0.06	11	92	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP18 0-0.15	0-0.15	11/12/2014	5.2	<0.4	15	17	75	0.08	7.2	88	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5	0.605	<0.5	<0.5	1.4	0.7	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP18 1.0	1	11/12/2014	3.9	<0.4	28	15	56	0.08	7.4	77	<0.5	<0.5	<0.5	0.6	0.6	0.7	1	1.3	<0.5	<0.5	<0.5	0.6	<0.5	0.9	<0.5	<0.5	0.9935	<0.5	<0.5	3.7	1	-	-	-	-	-	-	-	-	-	-	-	-
TP19 0.3	0.3	11/12/2014	3.7	<0.4	20	59	220	2.3	14	250	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
TP20 0-0.15	0-0.15	11/12/2014	<2	<0.4	18	46	<5	<0.05	110	52	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
QC02	2	11/12/2014	7.9	<0.4	15	31	81	<0.05	6.2	220	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
QC02/A	2	11/12/2014	8	<0.4	23	61	89	<0.1	14	200	<0.1	<0.1	<0.1	0.1	0.1	-	-	-	-	0.1	-	0.1	<0.1	0.2	<0.1	0.1	0.172	<0.1	<0.1	-	0.2	<0.2	<1	<0.5	<2	<1	-	<25	<50	<100	<100	<25	<50
QC03	1	11/12/2014	9.3	<0.4	11	34	36	<0.05	13	72	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.605	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.2	<0.1	<0.3	<20	<50	<100	<100	<20	<50
QC03/A	1	11/12/2014	<4	<0.4	8	6	17	<0.1	3	25	<0.1	<0.1	<0.1	<0.1	<0.05	-	-	-	-	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.086	<0.1	<0.1	-	<0.1	<0.2	<1	<0.5	<2	<1	-	<25	<50	<100	<100	<25	<50
TP14 - Sulfur	-	11/12/2014	<2	<0.4	<5	<5	<5	<0.05	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11 - Sulfur	-	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

							Sulfur		Polychlorinated Biphenyls							Organochlorine Pesticides																					Chlorinated Alkenes						
			1,2-Dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	Hexachlorobenzene	Sulfur	Carbon disulfide	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Aldrin	Aldrin + Dieldrin (Sum of Total)	alpha-BHC	beta-BHC	delta-BHC	Chlordane	DDD	DDE	DDT	Dieldrin	Endosulfan alpha	Endosulfan beta	Endosulfan Sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Toxaphene	1,1,2,2-tetrachloroethylene	1,1-Dichloroethene	4-chlorotoluene	cis-1,2-dichloroethene	cis-1,3-dichloropropene	trans-1,2-dichloroethene	trans-1,3-dichloropropene
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.5	0.5	0.5	0.05	100	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.05		0.05	0.05	0.05	0.1	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5
NEPC 2013 Management Limits - Commercial and Industrial, Coarse																																											
NEPC 2013 Soil HIL D						80									7		45				530								100			50			2500	160							
NEPC 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																											
Field ID	**Depth**	**Date**																																									
TP01 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP01 1.0M	1	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP03 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP04 0.3M	0.3	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP05 0.5M	0.5	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP05 2.0M	2	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP06 0.3M	0.3	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP07 2.0M	2	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP09 0-0.15M	0-0.15	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP10 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP11 0-0.15M	0-0.15	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP11 1.0M	1	11/12/2014	-	-	-	<0.05	1200	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP12 0.3	0.3	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP014 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP16 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.085	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP16 0.5	0.5	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP17 0-0.15	0-0.15	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP17 1.0	1	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP18 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP18 1.0	1	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
TP19 0.3	0.3	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
TP20 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC02	2	11/12/2014	-	-	-	<0.05	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.2	<1	-	-	-	-	-	-	-
QC02/A	2	11/12/2014	-	-	-	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
QC03	1	11/12/2014	<0.5	<0.5	<0.5	<0.05	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.1	<0.05	<0.2	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QC03/A	1	11/12/2014	<1	<1	<1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	-	<1	<1	<1	<1	<1	<1	<1
TP14 - Sulfur	-	11/12/2014	-	-	-	-	46,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11 - Sulfur	-	11/12/2014	-	-	-	-	69,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

			Miscellaneous Hydrocarbons							Chlorinated Alkanes																		Monocyclic Aromatic Hydrocarbons					Asbestos
			Trichloroethene	Vinyl Chloride	1,2-dibromoethane	2-Butanone (MEK)	4-Methyl-2-pentanone (MIBK)	Bromoform	Bromomethane	Dibromomethane	Iodomethane	1,1,1,2-tetrachloroethane	1,1,1-trichloroethane	1,1,2,2-tetrachloroethane	1,1,2-trichloroethane	1,1-dichloroethane	1,2,3-trichloropropane	1,2-dichloroethane	1,2-dichloropropane	1,3-dichloropropane	bromodichloromethane	dibromochloromethane	Carbon tetrachloride	Chloroform	Chloroethane	Chloromethane	Dichlorodifluoromethane	Dichloromethane	Trichlorofluoromethane	1,2,4-trimethyl benzene	1,3,5-trimethyl benzene	Bromobenzene	isopropylbenzene	styrene	Asbestos Fibres
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	0.001% w/w
EQL			0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	ACM must be less than 0.05% w/w. Asbestos fibres must be less than 0.001% w/w.
NEPC 2013 Management Limits - Commercial and Industrial, Coarse																																		
NEPC 2013 Soil HIL D																																		
NEPC 2013 Soil HSL D for Vapour Intrusion - Sand 0 to <1m																																		
Field ID	**Depth**	**Date**																																
TP01 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP01 1.0M	1	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP03 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP04 0.3M	0.3	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP05 0.5M	0.5	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP05 2.0M	2	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP06 0.3M	0.3	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.0016% w/w**
TP07 2.0M	2	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP09 0-0.15M	0-0.15	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.0032% w/w**
TP10 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP11 0-0.15M	0-0.15	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP11 1.0M	1	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP12 0.3	0.3	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP014 0-0.15M	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP16 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.0233% w/w**
TP16 0.5	0.5	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
TP17 0-0.15	0-0.15	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.0034% w/w**
TP17 1.0	1	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP18 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP18 1.0	1	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**0.0128% w/w**
TP19 0.3	0.3	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
TP20 0-0.15	0-0.15	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**0.0025% w/w**
QC02	2	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
QC02/A	2	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.001%
QC03	1	11/12/2014	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.001%
QC03/A	1	11/12/2014	<1	<1	<1	-	-	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1	<1	<1	<1	<1	<1	<0.001%
TP14 - Sulfur	-	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP11 - Sulfur	-	11/12/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Metals & Metalloids								Sulfur	Polycyclic Aromatic Hydrocarbons																BTEX					
		Arsenic (Total)	Cadmium	Chromium (Total)	Copper	Lead	Mercury (Inorganic)	Nickel	Zinc	Sulfur	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b,j)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	PAHs (Total)	Pyrene	Benzene	Ethylbenzene	Toluene	Xylene (m & p)	Xylene (o)	Xylene (Total)
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL		5	0.5	5	5	5	0.1	5	5	1000	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3
NEPC 2013 GIL - Fresh Waters			0.2		1.4	3.4	0.06	11	8															16				950				350	
Field_ID	**Date**																																
DRAIN	11/12/2014	7	<0.5	10	**39**	**100**	<0.1	**11**	**180**	<1000	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<1	<3

	TRHs (NEPC 2013)						Polychlorinated Biphenyls							Organochlorine Pesticides																			
	C6-C10 Fraction	>C10-C16 Fraction	>C16-C34 Fraction	>C34-C40 Fraction	C6 - C10 less BTEX (F1)	>C10 - C16 less Naphthalene (F2)	Aroclor 1016	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	PCBs (Total)	Aldrin	alpha-BHC	beta-BHC	delta-BHC	Chlordane	DDD	DDE	DDT	Dieldrin	Endosulfan alpha	Endosulfan beta	Endosulfan Sulphate	Endrin	Endrin aldehyde	Endrin ketone	Heptachlor	Heptachlor Epoxide	Lindane	Methoxychlor	Toxaphene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	20	50	100	100	20	50	5	5	5	5	5	5	5	0.1	0.1	0.1	0.1	1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	10
NEPC 2013 GIL - Fresh Waters									0.3		0.01							0.03			0.006					0.01			0.01		0.2		0.1
Field_ID **Date**																																	
DRAIN 11/12/2014	<20	<50	100	<100	<20	<50	<5	<5	<5	<5	<5	<5	<5	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1000

Field Duplicates (SOIL)
Filter: Lab_Report_Number in('4422'

Lab Report Number	442273	442273		442273	442273		442273	Interlab_D		442273	Interlab_D	
Field ID	TP05 2.0M	QC02	RPD	TP17 1.0	QC03	RPD	TP05 2.0M	QC02/A	RPD	TP17 1.0	QC03/A	RPD
Sampled Date/Time	11/12/2014	11/12/2014		11/12/2014	11/12/2014		11/12/2014	11/12/2014		11/12/2014	11/12/2014	

Chem_Group	ChemName	Units	EQL												
Metals & Metalloids	Arsenic (Total)	mg/kg	2 (Primary): 4 (Interlab)	7.4	7.9	7	**4.1**	**9.3**	**78**	7.4	8.0	8	4.1	<4.0	2
	Cadmium	mg/kg	0.4	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0	<0.4	<0.4	0
	Chromium (Total)	mg/kg	5 (Primary): 1 (Interlab)	**32.0**	**15.0**	**72**	13.0	11.0	17	32.0	23.0	33	13.0	8.0	48
	Copper	mg/kg	5 (Primary): 1 (Interlab)	50.0	31.0	47	**18.0**	**34.0**	**62**	50.0	61.0	20	**18.0**	**6.0**	**100**
	Lead	mg/kg	5 (Primary): 1 (Interlab)	**200.0**	**81.0**	**85**	42.0	36.0	15	**200.0**	**89.0**	**77**	**42.0**	**17.0**	**85**
	Mercury (Inorganic)	mg/kg	0.05 (Primary): 0.1 (Interlab)	0.07	<0.05	33	0.06	<0.05	18	0.07	<0.1	0	0.06	<0.1	0
	Nickel	mg/kg	5 (Primary): 1 (Interlab)	18.0	6.2	98	11.0	13.0	17	18.0	14.0	25	11.0	3.0	114
	Zinc	mg/kg	5 (Primary): 1 (Interlab)	160.0	220.0	32	92.0	72.0	24	160.0	200.0	22	**92.0**	**25.0**	**115**
Chlorinated Alkanes	1,1,1,2-tetrachloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,1,1-trichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,1,2,2-tetrachloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,1,2-trichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,1-dichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,2,3-trichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,2-dichloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,2-dichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,3-dichloropropane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	bromodichloromethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	dibromochloromethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Carbon tetrachloride	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Chloroform	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Chloroethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Chloromethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Dichlorodifluoromethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Dichloromethane	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Trichlorofluoromethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
Chlorinated Alkenes	1,1,2,2-tetrachloroethylene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,1-Dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	4-chlorotoluene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	cis-1,2-dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	cis-1,3-dichloropropene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	trans-1,2-dichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	trans-1,3-dichloropropene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Trichloroethene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Vinyl Chloride	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
Miscellaneous Hydrocarbons	1,2-dibromoethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	2-Butanone (MEK)	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	4-Methyl-2-pentanone (MI	mg/kg	0.5				<0.5	<0.5	0				<0.5		
	Bromoform	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Bromomethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Dibromomethane	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Iodomethane	mg/kg	0.5				<0.5	<0.5	0				<0.5		
Monocyclic Aromatic Hydrocarbons	1,2,4-trimethyl benzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,3,5-trimethyl benzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Bromobenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Isopropylbenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	styrene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
Polycyclic Aromatic Hydrocarbons	Acenaphthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Acenaphthylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Benz(a)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	<0.1	0
	Benzo(a)pyrene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	<0.05	0
	Benzo(a)pyrene TEQ (low	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Benzo(a)pyrene TEQ (me	mg/kg	0.5	0.6	0.6	0	0.6	0.6	0	0.6			0.6		
	Benzo(a)pyrene TEQ (upp	mg/kg	0.5	1.2	1.2	0	1.2	1.2	0	1.2			1.2		
	Benzo(b,j)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Benzo(g,h,i)perylene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	<0.1	0
	Benzo(k)fluoranthene	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Chrysene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	<0.1	0
	Dibenz(a,h)anthracene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Fluoranthene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.2	0	<0.5	<0.1	0
	Fluorene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.1	0	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Naphthalene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<0.1	0
	Phenanthrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	PAHs (Total)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
	Pyrene	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	0.2	0	<0.5	<0.1	0
BTEX	Benzene	mg/kg	0.1 (Primary): 0.2 (Interlab)				<0.1	<0.1	0				<0.1	<0.2	0
	Ethylbenzene	mg/kg	0.1 (Primary): 1 (Interlab)				<0.1	<0.1	0				<0.1	<1.0	0
	Toluene	mg/kg	0.1 (Primary): 0.5 (Interlab)				<0.1	<0.1	0				<0.1	<0.5	0
	Xylene (m & p)	mg/kg	0.2 (Primary): 2 (Interlab)				<0.2	<0.2	0				<0.2	<2.0	0
	Xylene (o)	mg/kg	0.1 (Primary): 1 (Interlab)				<0.1	<0.1	0				<0.1	<1.0	0
	Xylene (Total)	mg/kg	0.3				<0.3	<0.3	0				<0.3		
TRHs (NEPC 2013)	C6-C10 Fraction	mg/kg	20 (Primary): 25 (Interlab)				<20.0	<20.0	0				<20.0	<25.0	0
	>C10-C16 Fraction	mg/kg	50				<50.0	<50.0	0				<50.0	<50.0	0
	>C16-C34 Fraction	mg/kg	100				<100.0	<100.0	0				<100.0	<100.0	0
	>C34-C40 Fraction	mg/kg	100				<100.0	<100.0	0				<100.0	<100.0	0
	C6 - C10 less BTEX (F1)	mg/kg	20 (Primary): 25 (Interlab)				<20.0	<20.0	0				<20.0	<25.0	0
	>C10 - C16 less Naphthal	mg/kg	50				<50.0	<50.0	0				<50.0	<50.0	0
Chlorinated Benzenes	1,2-Dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,3-dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	1,4-dichlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Hexachlorobenzene	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
Polychlorinated Biphenyls	Aroclor 1016	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Aroclor 1232	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Aroclor 1242	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Aroclor 1248	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Aroclor 1254	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	Aroclor 1260	mg/kg	0.5 (Primary): 0.1 (Interlab)	<0.5	<0.5	0	<0.5	<0.5	0	<0.5	<0.1	0	<0.5	<0.1	0
	PCBs (Total)	mg/kg	0.5	<0.5	<0.5	0	<0.5	<0.5	0	<0.5			<0.5		
Sulfur	Carbon disulfide	mg/kg	0.5				<0.5	<0.5	0				<0.5		
Organochlorine Pesticides	Aldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	alpha-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	beta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	delta-BHC	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Chlordane	mg/kg	0.1	<0.1	<0.1	0	<0.1	<0.1	0	<0.1			<0.1		
	DDD	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	DDE	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	DDT	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Dieldrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan alpha	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan beta	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endosulfan Sulphate	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin aldehyde	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	<0.05	<0.05	0	<0.05			<0.05		
	Heptachlor	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	0.08	46	<0.05	<0.1	0	<0.05	<0.1	0
	Heptachlor Epoxide	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	0.1	67	<0.05	<0.1	0	<0.05	<0.1	0
	Lindane	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	<0.05	<0.05	0	<0.05	<0.1	0	<0.05	<0.1	0
	Methoxychlor	mg/kg	0.2 (Primary): 0.1 (Interlab)	<0.2	<0.2	0	<0.2	<0.2	0	<0.2	<0.1	0	<0.2	<0.1	0
	Toxaphene	mg/kg	1	<1.0	<1.0	0	<1.0	<1.0	0	<1.0			<1.0		
Surrogate	Surrogate Bromochlorome	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0
	Surrogate Chlorobenzene	mg/kg	0.5 (Primary): 1 (Interlab)				<0.5	<0.5	0				<0.5	<1.0	0

*RPDs have only been considered where a concentration is greater than 4 times the EQL.

**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (4-10 x EQL); 50 (10-30 x EQL); 50 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Attachment 4 – Assessment of Quality Assurance/Quality Control

The pre-determined data quality indicators (DQIs) established for the project are discussed below in relation to precision, accuracy, representativeness, comparability and completeness (Table A4.1).

- Precision - measures the reproducibility of measurements under a given set of conditions. The precision of the laboratory data and sampling techniques is assessed by calculating the Relative Percent Difference (RPD) of duplicate samples.
- Accuracy - measures the bias in a measurement system. The accuracy of the laboratory data that are generated during this study is a measure of the closeness of the analytical results obtained by a method to the 'true' value. Accuracy is assessed by reference to the analytical results of laboratory control samples, laboratory spikes and analyses against reference standards.
- Representativeness –expresses the degree which sample data accurately and precisely represents a characteristic of a population or an environmental condition. Representativeness is achieved by collecting samples on a representative basis across the site, and by using an adequate number of sample locations to characterise the site to the required accuracy.
- Comparability - expresses the confidence with which one data set can be compared with another. This is achieved through maintaining a level of consistency in techniques used to collect samples; ensuring analysing laboratories use consistent analysis techniques and reporting methods.
- Completeness – is defined as the percentage of measurements made which are judged to be valid measurements. The completeness goal is set at there being sufficient valid data generated during the study.
- Sensitivity – expresses the appropriateness of the chosen laboratory methods, including the limits of reporting, in producing reliable data in relation to the adopted site assessment criteria.

Table A4.1: Summary of Quality Assurance / Quality Control Program

Data Quality Indicator	Frequency	DQI Target
Precision		
Blind duplicates (soil intra-laboratory)	1/20 samples	<50% RPD
Laboratory duplicates	1/20 samples	<50% RPD
Trip blank	1/sampling event	<LOR
Rinsate blank	1/sampling event	<LOR
Trip spike	1/sampling event	70-30% recovery
Accuracy		
Surrogate spikes	All organic samples	70-130% recovery
Matrix spikes	1 per lab batch or 20 samples	70-130% recovery
Laboratory control samples	1 per lab batch or 20 samples	70-130% recovery
Representativeness		
Sampling appropriate for media and analytes	All samples	-
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times	All samples	-
Comparability		
Standard operating procedures used for sample collection and handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, field staff and laboratories	All works	All works
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Soil description and COCs completed and appropriate	All samples	All samples
Appropriate documentation completed	All works	All works
Satisfactory frequency and result for QC samples	All samples	All samples

Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
Analytical methods and limits of recovery appropriate for media and adopted Site assessment criteria	All samples	LOR<= Site assessment criteria

If the RPD between duplicates is greater than the pre-determined data quality indicator, a judgement will be made as to whether the excess is critical in relation to the validation of the data set or unacceptable sampling error is occurring in the field.
Lower recoveries may be recorded for some semi-volatile organic analyses.
DQIs have been calculated as per Table A4.1 and are summarised in Table A4.2 and discussed below.

Table A4.2: Data Quality Indicators

Data Quality Indicator	Frequency	DQI Target
Precision		
Blind duplicates	2/25 samples	**0-85% RPD**
Blind triplicates	2/25 samples	**0-115% RPD**
Laboratory duplicates	2 per lab batch	<50% RPD
Trip blank	Water 1	<LOR
Rinsate blank	Water 1	<LOR
Trip spike	Water 1	97-104%
Accuracy		
Surrogate spikes	Soil batch	70-129%
Matrix spikes	Soil batch	71-124%
Laboratory control samples	1 per lab batch or 20 samples	75-122% recovery
Representativeness		
Sampling appropriate for media and analytes	All samples	All sampling appropriate
Laboratory blanks	1 per lab batch	<LOR
Samples extracted and analysed within holding times	All samples	All samples extracted and analysed within holding times
Comparability		
Standard operating procedures used for sample collection and handling	All samples	All samples
Standard analytical methods used for all analyses	All samples	All samples
Consistent field conditions, field staff and laboratories	All works	All works
Limits of reporting appropriate and consistent	All samples	All samples
Completeness		
Soil description and COCs completed and appropriate	All samples	All samples
Appropriate documentation completed	All works	All works
Satisfactory frequency and result for QC samples	All samples	All samples
Data from critical samples is considered valid	-	Critical samples valid
Sensitivity		
LOR < adopted criteria	All samples	All samples

Discussion of QA/QC Results

Precision

Blind Duplicates

As presented in **Table C**, duplicate sample RPDs for arsenic (78%), chromium (72%), copper (62%) and lead (85%) exceeded the adopted acceptance standard. For the triplicate samples, RPDs for copper (100%), lead (85%) and zinc (115%) exceeded the adopted acceptance standard. The elevated RPDs for both intra-laboratory, inter-laboratory duplicates are considered to be the result of low chemical concentrations (close to the LOR) and the difficulties associated with obtaining representative samples of heterogeneous material. It is noted that none of the potential

contaminants that returned high RPD's exceeded the adopted site criteria in any of the analysed samples. The high RPD's are therefore not expected to impact the results of this investigation.

Trip spike

Trip spike results were reported within the acceptable range.

Trip blank

Trip blank results were reported below the laboratory LOR.

Rinsate blank

Rinsate blank results were reported below the laboratory LOR.

Accuracy

Surrogate Spikes

Surrogate spike results were reported within the acceptable range.

Matrix Spikes

Matrix spike results were reported within the acceptable range.

Representativeness

Sampling appropriate for media and analytes

The soil sampling methods undertaken in this investigation are considered appropriate.

Laboratory blanks

Laboratory blank results were reported below the laboratory LOR.

Holding times

All analyses have were undertaken within holding times.

Comparability

The laboratories (Eurofins MGT and Envirolab Services) are NATA accredited for all methods. JBS&G personnel undertook all sampling in accordance with standard JBS&G sampling methods.

Completeness

Documentation

All documentation is complete and correct.

Frequency for QC Samples

The frequency of analysis of all QC samples is considered appropriate.

Sensitivity

The LOR of all analysed samples was below the adopted site criteria.

Assessment of QA/QC

The results of the field and laboratory QA/QC program indicates that the data obtained from the sampling and analysis can be considered appropriately accurate for the objectives of the assessment. However it should be noted that there is potential heterogeneity of contaminant distributions throughout fill based materials.

Attachment 5 – Borelogs and Decontamination Records

Test Pit No: TP01

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravel, poorly graded roadbase, medium density, non-plastic, heterogeneous, dry.	TP01_0-0.15	0.1	D	No Odours, Stains or ACM Observed.
		Fill Silty clay, brown to grey, homogeneous, non-plastic, stiff, dry	TP01_0.3	-	D	
		Fill As above.	TP01_0.5	0.3	D	
1.0		**Fill** As above.	TP01_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP03

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravely sand, poorly graded, medium density, non-plastic, heterogeneous, dry.	TP03_0-0.15	0.2	D	No Odours, Stains or ACM Observed.
		Fill Silty clay, brown, homogeneous, non-plastic, firm, dry, with inclusions of shale.	TP03_0.3	-	D	
		Fill As above.	TP03_0.5	0.1	D	
1.0		**Fill** As above, with inclusions of brick.	TP03_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP04

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Silty Clay, dark brown, homogeneous, firm, non-plastic, dry.	TP04_0-0.15	0.2	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP04_0.3	-	D	
		Fill As above.	TP04_0.5	0.2	D	
1.0		**Fill** As above, with inclusions of brick and shale.	TP04_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP05

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 2

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.5

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Silty Clay, homogeneous, soft to firm, low plasticity, moist, with inclusions of irrigation pipe.	TP05_0.5	0.1	D	No Odours, Stains or ACM Observed.
1.0		**Fill** As above.	TP05_1.0	0.2	D	
		Fill As above, with inclusions of brick and shale.	TP05_2.0	0.1	D	
2.0		**End of Hole** End of hole @ 2.0 m bgs - program depth.				
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP06

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.6

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.13

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, brown, heterogeneous, loose, poorly graded, non-plastic, dry.	TP06_0-0.15	0.1	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP06_0.3	-	D	
		Fill As above.	TP06_0.5	0.3	D	
1.0		**Fill** Silty clay, brown to grey, homogeneous, stiff, non-plastic, dry.	TP06_1.1	-	D	
		End of Hole End of hole @ 1.6 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

JBS&G	**Test Pit No: TP07**	**Project No:** 50419 **Client:** TH &TH Chung **Project Name:** 191 Miller Rd, Chester Hill **Site Address:** 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 2

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.5

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Silty clay, brown to grey to white, homogeneous, soft, medium plasticity, damp.	TP07_0.5	0.1	D	No Odours, Stains or ACM Observed.
1.0		**Fill** As above, with inclusions of brick.	TP07_1.0	-	D	
2.0		**Fill** As above, with inclusions of brick and shale.	TP07_2.0	0.4	D	
		End of Hole End of hole @ 2.0 m bgs - program depth.				
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP09

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 0.2

Eastings (MGA): -
Northings (MGA): -
Reference Level: -
Elevation - Surface (m): Ground surface
Pit Dimension (m^3): 0.1

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Roadbase, gravel, grey to black, heterogeneous, moist.	TP09_0-0.15	0.3	D	No Odours, Stains or ACM Observed.
		End of Hole End of hole @ 0.2 m bgs - refusal on concrete.				
1.0						
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP10

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, heterogeneous, medium density, poorly graded, with inclusions of pipe metal and decomposing timber.	TP10_0-0.15	0.3	D	No Odours, Stains or ACM Observed.
		Fill Silty clay, brown, homogeneous, firm, non-plastic, wet.	TP10_0.3	0.3	D	
		Fill As above.	TP10_0.5	-	D	
		Fill As above, clay, grey to brown.				
1.0			TP10_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP11

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Crushed sandstone, yellow to brown, homogeneous, damp to wet, with inclusions of cobbles and sand.	TP11_0-0.15	0.4	D	No Odours, Stains or ACM Observed.
		Fill As above, smells of sulphur.	TP11_0.3	-	D	
		Fill Silty clay, brown, homogeneous, firm, non-plastic, wet.	TP11_0.5	0.2	D	
1.0		**Fill** Clay and Sandstone, with inclusions of yellow sulphur like material.	TP11_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

JBS&G	**Test Pit No: TP12**	**Project No:** 50419 **Client:** TH &TH Chung **Project Name:** 191 Miller Rd, Chester Hill **Site Address:** 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 0.75

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, with inclusions of decomposed timber.	TP12_0-0.15	0.3	D	No Odours, Stains or ACM Observed.
		Fill Silty clay, brown, homogeneous, very stiff, high plasticity.	TP12_0.3	-	D	
		Silty Clay Homogeneous, very stiff, high plasticity.	TP12_0.5	-	D	
1.0		**End of Hole** End of hole @ 1.0 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP14

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Silty clay, brown to yellow, homogeneous, stiff, low plasticity, wet.	TP14_0-0.15	0.1	D	No Odours, Stains or ACM Observed.
		Fill Crushed sandstone, yellow to brown, heterogeneous, soft, fine to medium sand.	TP14_0.3	0.2	D	
		Silty Clay Brown, homogeneous, stiff, non-plastic to low plasticity, wet.	TP14_0.5	-	D	
1.0		**Silty Clay** Grey to brown, homogeneous, stiff, non-plastic to low plasticity, wet.	TP14_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP16

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 0.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 0.375

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, brown, heterogeneous, poorly graded, wet, with inclusions of brick and timber.	TP16_0-0.15	0.1	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP16_0.3	-	D	
		Fill Clay, brown, homogeneous, firm, non-plastic, wet.	TP16_0.5	0.3	D	
		End of Hole End of hole @ 0.5 m bgs - refusal on stormwater pipe.				
1.0						
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP17

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, brown, heterogeneous, poorly graded, non-plastic, wet, with inclusions of brick.	TP17_0-0.15	0.2	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP17_0.3	-	D	
		Fill As above.	TP17_0.5	0.1	D	
1.0		**Fill** As above.	TP17_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP18

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 1.125

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravel, brown, heterogeneous, poorly graded, non-plastic, wet, with inclusions of brick.	TP18_0-0.15	0.3	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP18_0.3	-	D	
		Fill As above.	TP18_0.5	0.1	D	
1.0		**Fill** As above.	TP18_1.0	-	D	
		End of Hole End of hole @ 1.5 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP19

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 0.5

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 0.375

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravelly sand, brown, heterogeneous, poorly graded, non-plastic, damp to moist.	TP19_0-0.15	0.2	D	No Odours, Stains or ACM Observed.
		Fill As above.	TP19_0.3	0.1	D	
		End of Hole End of hole @ 0.5 m bgs - refusal on concrete slab.				
1.0						
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Test Pit No: TP20

Project No: 50419
Client: TH &TH Chung
Project Name: 191 Miller Rd, Chester Hill
Site Address: 191 Miller Rd, Chester Hill, NSW

Date: 11/12/14
Contractor: TH & TH Chung
Excavation Plant: Excavator
Method: Test Pit
Total Hole Depth (mbgs): 1

Eastings (MGA): -
Northings (MGA): -
Reference Level: Ground surface
Elevation - Surface (m): -
Pit Dimension (m^3): 0.75

SUBSURFACE PROFILE			SAMPLE			
Depth	Graphic Log	Lithologic Description	Sample ID	PID (ppm)	Sample Type	Comments
0.0		**Fill** Gravel, grey, heterogeneous, poorly graded, non-plastic, wet.	TP20_0-0.15	0.3	D	No Odours, Stains or ACM Observed.
		Fill Clay, grey to brown, homogeneous, firm to stiff, high plasticity, wet.	TP20_0.3	-	D	
		Natural Grey to brown, stiff.	TP20_0.5	0.2	D	Water filled hole from approximately 0.8 m bgs
1.0		**End of Hole** End of hole @ 1.0 m bgs - program depth.				
2.0						
3.0						
4.0						

Method	*Sample Type*	*Reference Level*	*Log Details*
TP - Test Pit	*D - Disturbed sample*	*AHD - Australian Height Datum* *BGS - Below Ground Surface*	*Logged By:* JN *Project Manager:* TC

NOTE: This bore log is for environmental assessment purposes only and is not intended to provide geotechnical information

Table A5.1 Sample Location Coordinates

Location	Easting	Northing
TP01	314460.2	6248964
TP03	314460.5	6248903
TP04	314445.6	6248908
TP05	314502.1	6248916
TP06	314521.2	6248916
TP07	314483	6248914
TP09	314716.9	6248934
TP10	314525.6	6248881
TP11	314635.1	6248898
TP12	314486.2	6248854
TP14	314644.1	6248868
TP16	314541.1	6248799
TP17	314574.3	6248794
TP18	314633	6248813
TP19	314561.9	6248855
TP20	314665.9	6248819
DRAIN	314444	6248767

Field Equipment Calibration and Decontamination

PROJECT NAME: Miller Rd, Chester Hill	**PROJECT NO:** 5041 9
FIELD DATES: 11/12/14	**FIELD STAFF:** JN

CALIBRATION SUMMARY
EQUIPMENT: PID
CALIBRATION STANDARD: —

DATE	TIME	READING (ppm_v)	COMMENTS
10/12/14	5:00pm	0.00	Zeroed (carbon) + calibrated (iso)

DECONTAMINATION SUMMARY			
EQUIPMENT: Towel			
1. Was the equipment decontaminated appropriately prior to sampling at each location?	Y	N	NA
2. Was excess soil removed by scraping, brushing or wiping with disposable towels?	Y	N	NA
3. Was the equipment contaminated with grease, tar or similar material? If so, was the equipment steam cleaned or rinsed with pesticide-grade acetone:hexane?	Y Y	N N	NA
4. Was phosphate-free detergent used to wash the equipment?	Y	N	NA
5. Was the equipment rinsed with clean water?	Y	N	NA
6. Was the equipment then rinsed with deionised water?	Y	N	NA
7. Were all sample containers cleaned and acid or solvent washed prior to sample collection?	Y	N	NA
WERE ANY ADDITIONAL DECONTAMINATION MEASURES REQUIRED? PROVIDE DETAILS. New gloves used for each sample.			

Attachment 6 – Laboratory Reports and Chain of Custody Documentation

eurofins | mgt

Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Tyler Creese**

Report **442273-S**
Project name 191 MILLER ROAD CHESTER HILL 50419
Received Date Dec 12, 2014

Client Sample ID **Sample Matrix** **Eurofins | mgt Sample No.** **Date Sampled** Test/Reference	LOR	Unit	**TP01 0-0.15M** **Soil** **S14-De12435** **Dec 11, 2014**	**TP01 1.0M** **Soil** **S14-De12438** **Dec 11, 2014**	**TP03 0-0.15M** **Soil** **S14-De12439** **Dec 11, 2014**	**TP04 0.3M** **Soil** **S14-De12444** **Dec 11, 2014**
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	54	< 50
TRH C29-C36	50	mg/kg	< 50	-	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	-	54	< 50
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	%	99	-	108	101
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
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	< 0.5	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP01 0-0.15M Soil S14-De12435 Dec 11, 2014	TP01 1.0M Soil S14-De12438 Dec 11, 2014	TP03 0-0.15M Soil S14-De12439 Dec 11, 2014	TP04 0.3M Soil S14-De12444 Dec 11, 2014
Volatile Organics						
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	< 0.5	-
Benzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	-	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	-	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
o-Xylene	0.1	mg/kg	< 0.1	-	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	-	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	-	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	-	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	< 0.5	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	< 0.3	-
Fluorobenzene (surr.)	1	%	97	-	89	-
4-Bromofluorobenzene (surr.)	1	%	99	-	108	-
Polycyclic Aromatic Hydrocarbons						
Comments				R14		
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	14	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	14	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	14	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	1.1	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	4.0	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	8.0	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	9.1	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP01 0-0.15M Soil S14-De12435 Dec 11, 2014	TP01 1.0M Soil S14-De12438 Dec 11, 2014	TP03 0-0.15M Soil S14-De12439 Dec 11, 2014	TP04 0.3M Soil S14-De12444 Dec 11, 2014
Polycyclic Aromatic Hydrocarbons						
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	8.2	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	7.5	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	8.4	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	7.6	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	1.3	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	22	0.7	< 0.5
Fluorene	0.5	mg/kg	< 0.5	1.4	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	6.2	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	17	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	20	0.6	< 0.5
Total PAH	0.5	mg/kg	< 0.5	120	1.3	< 0.5
2-Fluorobiphenyl (surr.)	1	%	104	105	106	102
p-Terphenyl-d14 (surr.)	1	%	104	97	99	101
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	0.07	< 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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	127	80	86	84
Tetrachloro-m-xylene (surr.)	1	%	100	97	122	110
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	127	80	86	84
% Moisture	0.1	%	4.6	16	11	14

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP01 0-0.15M Soil S14-De12435 Dec 11, 2014	TP01 1.0M Soil S14-De12438 Dec 11, 2014	TP03 0-0.15M Soil S14-De12439 Dec 11, 2014	TP04 0.3M Soil S14-De12444 Dec 11, 2014
Heavy Metals						
Arsenic	2	mg/kg	< 2	5.5	7.6	9.4
Cadmium	0.4	mg/kg	< 0.4	< 0.4	1.9	1.4
Chromium	5	mg/kg	29	24	22	37
Copper	5	mg/kg	69	80	72	150
Lead	5	mg/kg	< 5	32	130	180
Mercury	0.05	mg/kg	< 0.05	0.06	0.17	0.21
Nickel	5	mg/kg	190	82	15	28
Zinc	5	mg/kg	87	190	680	1100

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP05 0.5M Soil S14-De12447 Dec 11, 2014	TP05 2.0M Soil S14-De12449 Dec 11, 2014	TP06 0.3M Soil S14-De12451 Dec 11, 2014	TP07 2.0M Soil S14-De12456 Dec 11, 2014
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	-	65	-
TRH C29-C36	50	mg/kg	< 50	-	74	-
TRH C10-36 (Total)	50	mg/kg	< 50	-	140	-
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	%	95	-	104	-
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	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-	120	-
TRH >C34-C40	100	mg/kg	< 100	-	< 100	-
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP05 0.5M Soil S14-De12447 Dec 11, 2014	TP05 2.0M Soil S14-De12449 Dec 11, 2014	TP06 0.3M Soil S14-De12451 Dec 11, 2014	TP07 2.0M Soil S14-De12456 Dec 11, 2014
Volatile Organics						
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	-
Benzene	0.1	mg/kg	< 0.1	-	-	-
Bromobenzene	0.5	mg/kg	< 0.5	-	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	-
Bromoform	0.5	mg/kg	< 0.5	-	-	-
Bromomethane	0.5	mg/kg	< 0.5	-	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	-
Chloroethane	0.5	mg/kg	< 0.5	-	-	-
Chloroform	0.5	mg/kg	< 0.5	-	-	-
Chloromethane	0.5	mg/kg	< 0.5	-	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	-
Dibromomethane	0.5	mg/kg	< 0.5	-	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	-
Iodomethane	0.5	mg/kg	< 0.5	-	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	-
o-Xylene	0.1	mg/kg	< 0.1	-	-	-
Styrene	0.5	mg/kg	< 0.5	-	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	-
Toluene	0.1	mg/kg	< 0.1	-	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	-
Trichloroethene	0.5	mg/kg	< 0.5	-	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	-
Fluorobenzene (surr.)	1	%	88	-	-	-
4-Bromofluorobenzene (surr.)	1	%	95	-	-	-
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
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

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP05 0.5M Soil S14-De12447 Dec 11, 2014	TP05 2.0M Soil S14-De12449 Dec 11, 2014	TP06 0.3M Soil S14-De12451 Dec 11, 2014	TP07 2.0M Soil S14-De12456 Dec 11, 2014
Polycyclic Aromatic Hydrocarbons						
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	0.9	< 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	0.8	< 0.5
Total PAH	0.5	mg/kg	< 0.5	< 0.5	1.7	< 0.5
2-Fluorobiphenyl (surr.)	1	%	103	102	100	103
p-Terphenyl-d14 (surr.)	1	%	102	102	101	102
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	84	88	83	89
Tetrachloro-m-xylene (surr.)	1	%	117	122	91	110
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	84	88	83	89

Client Sample ID			TP05 0.5M	TP05 2.0M	TP06 0.3M	TP07 2.0M
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12447**	**S14-De12449**	**S14-De12451**	**S14-De12456**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
% Moisture	0.1	%	15	16	8.6	17
Heavy Metals						
Arsenic	2	mg/kg	6.9	7.4	7.6	7.6
Cadmium	0.4	mg/kg	< 0.4	< 0.4	3.3	1.7
Chromium	5	mg/kg	26	32	93	53
Copper	5	mg/kg	65	50	800	42
Lead	5	mg/kg	120	200	1300	45
Mercury	0.05	mg/kg	0.09	0.07	0.29	< 0.05
Nickel	5	mg/kg	23	18	49	12
Zinc	5	mg/kg	250	160	8100	120

Client Sample ID			TP09 0-0.15M	TP11 0-0.15M	TP11 1.0M	TP10 0-0.15
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12457**	**S14-De12458**	**S14-De12461**	**S14-De12465**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	-	52
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	-	52
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	%	70	98	-	100
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
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	-	-	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	-	-	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	-	-	-	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP09 0-0.15M Soil S14-De12457 Dec 11, 2014	TP11 0-0.15M Soil S14-De12458 Dec 11, 2014	TP11 1.0M Soil S14-De12461 Dec 11, 2014	TP10 0-0.15 Soil S14-De12465 Dec 11, 2014
Volatile Organics						
1.2-Dichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	-	-	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	-	-	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	-	-	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	-	-	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	-	-	-	< 0.5
4-Chlorotoluene	0.5	mg/kg	-	-	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	-	-	-	< 0.5
Benzene	0.1	mg/kg	-	-	-	< 0.1
Bromobenzene	0.5	mg/kg	-	-	-	< 0.5
Bromochloromethane	0.5	mg/kg	-	-	-	< 0.5
Bromodichloromethane	0.5	mg/kg	-	-	-	< 0.5
Bromoform	0.5	mg/kg	-	-	-	< 0.5
Bromomethane	0.5	mg/kg	-	-	-	< 0.5
Carbon disulfide	0.5	mg/kg	-	-	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	-	-	-	< 0.5
Chlorobenzene	0.5	mg/kg	-	-	-	< 0.5
Chloroethane	0.5	mg/kg	-	-	-	< 0.5
Chloroform	0.5	mg/kg	-	-	-	< 0.5
Chloromethane	0.5	mg/kg	-	-	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	-	-	-	< 0.5
Dibromochloromethane	0.5	mg/kg	-	-	-	< 0.5
Dibromomethane	0.5	mg/kg	-	-	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	-	-	-	< 0.5
Ethylbenzene	0.1	mg/kg	-	-	-	< 0.1
Iodomethane	0.5	mg/kg	-	-	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	-	-	-	< 0.5
m&p-Xylenes	0.2	mg/kg	-	-	-	< 0.2
Methylene Chloride	0.5	mg/kg	-	-	-	< 0.5
o-Xylene	0.1	mg/kg	-	-	-	< 0.1
Styrene	0.5	mg/kg	-	-	-	< 0.5
Tetrachloroethene	0.5	mg/kg	-	-	-	< 0.5
Toluene	0.1	mg/kg	-	-	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	-	-	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	-	-	-	< 0.5
Trichloroethene	0.5	mg/kg	-	-	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	-	-	-	< 0.5
Vinyl chloride	0.5	mg/kg	-	-	-	< 0.5
Xylenes - Total	0.3	mg/kg	-	-	-	< 0.3
Fluorobenzene (surr.)	1	%	-	-	-	84
4-Bromofluorobenzene (surr.)	1	%	-	-	-	100
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP09 0-0.15M Soil S14-De12457 Dec 11, 2014	TP11 0-0.15M Soil S14-De12458 Dec 11, 2014	TP11 1.0M Soil S14-De12461 Dec 11, 2014	TP10 0-0.15 Soil S14-De12465 Dec 11, 2014
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	0.9	< 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	0.8	< 0.5	< 0.5	< 0.5
Total PAH	0.5	mg/kg	1.7	< 0.5	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	102	111	108	104
p-Terphenyl-d14 (surr.)	1	%	105	113	109	97
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	84	90	122	112
Tetrachloro-m-xylene (surr.)	1	%	110	121	89	106
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP09 0-0.15M Soil S14-De12457 Dec 11, 2014	TP11 0-0.15M Soil S14-De12458 Dec 11, 2014	TP11 1.0M Soil S14-De12461 Dec 11, 2014	TP10 0-0.15 Soil S14-De12465 Dec 11, 2014
Polychlorinated Biphenyls (PCB)						
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	84	90	122	112
Sulphur	100	mg/kg	-	-	1200	-
% Moisture	0.1	%	10.0	9.9	20	10
Heavy Metals						
Arsenic	2	mg/kg	3.6	2.3	67	5.0
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	16	6.8	18	13
Copper	5	mg/kg	25	13	26	18
Lead	5	mg/kg	48	28	41	60
Mercury	0.05	mg/kg	0.06	< 0.05	< 0.05	0.06
Nickel	5	mg/kg	9.6	< 5	7.1	6.8
Zinc	5	mg/kg	74	61	45	79

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.3 Soil S14-De12470 Dec 11, 2014	TP16 0-0.15 Soil S14-De12472 Dec 11, 2014	TP16 0.5 Soil S14-De12474 Dec 11, 2014	TP17 0-0.15 Soil S14-De12475 Dec 11, 2014
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	72
TRH C29-C36	50	mg/kg	< 50	58	-	110
TRH C10-36 (Total)	50	mg/kg	< 50	58	-	180
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	%	100	107	-	97
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
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	160
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.3 Soil S14-De12470 Dec 11, 2014	TP16 0-0.15 Soil S14-De12472 Dec 11, 2014	TP16 0.5 Soil S14-De12474 Dec 11, 2014	TP17 0-0.15 Soil S14-De12475 Dec 11, 2014
Volatile Organics						
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	-
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	-
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	-
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	-
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	-
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	-
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	-
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	-
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	-
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	-
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	-
Fluorobenzene (surr.)	1	%	81	86	-	-
4-Bromofluorobenzene (surr.)	1	%	100	107	-	-

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP12 0.3 Soil S14-De12470 Dec 11, 2014	TP16 0-0.15 Soil S14-De12472 Dec 11, 2014	TP16 0.5 Soil S14-De12474 Dec 11, 2014	TP17 0-0.15 Soil S14-De12475 Dec 11, 2014
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	< 0.5	2.1
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	0.6	2.4
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.2	2.6
Acenaphthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.6
Acenaphthylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.9
Benz(a)anthracene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.8
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.6
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.3
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.4
Chrysene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	1.5
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	6.2
Fluorene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.7
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	0.8
Naphthalene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	6.5
Pyrene	0.5	mg/kg	< 0.5	< 0.5	< 0.5	5.0
Total PAH	0.5	mg/kg	< 0.5	< 0.5	< 0.5	30
2-Fluorobiphenyl (surr.)	1	%	104	100	106	104
p-Terphenyl-d14 (surr.)	1	%	103	104	102	103
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	0.06	< 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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1
Dibutylchlorendate (surr.)	1	%	112	122	106	123
Tetrachloro-m-xylene (surr.)	1	%	111	115	105	109

Client Sample ID			TP12 0.3	TP16 0-0.15	TP16 0.5	TP17 0-0.15
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S14-De12470	S14-De12472	S14-De12474	S14-De12475
Date Sampled			Dec 11, 2014	Dec 11, 2014	Dec 11, 2014	Dec 11, 2014
Test/Reference	LOR	Unit				
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	112	122	106	123
% Moisture	0.1	%	21	10	16	12
Heavy Metals						
Arsenic	2	mg/kg	9.8	3.4	3.9	4.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	23	8.7	6.9	10
Copper	5	mg/kg	25	21	12	22
Lead	5	mg/kg	16	55	14	62
Mercury	0.05	mg/kg	< 0.05	0.09	0.05	0.08
Nickel	5	mg/kg	9.6	5.3	13	7.7
Zinc	5	mg/kg	19	93	67	140

Client Sample ID			TP17 1.0	TP18 0-0.15	TP18 1.0	TP19 0.3
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins | mgt Sample No.			S14-De12478	S14-De12479	S14-De12482	S14-De12484
Date Sampled			Dec 11, 2014	Dec 11, 2014	Dec 11, 2014	Dec 11, 2014
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	< 20	-	< 20
TRH C10-C14	20	mg/kg	< 20	< 20	-	< 20
TRH C15-C28	50	mg/kg	< 50	< 50	-	< 50
TRH C29-C36	50	mg/kg	< 50	< 50	-	63
TRH C10-36 (Total)	50	mg/kg	< 50	< 50	-	63
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	%	99	95	-	107
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
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	< 50	-	< 50
TRH >C16-C34	100	mg/kg	< 100	< 100	-	< 100
TRH >C34-C40	100	mg/kg	< 100	< 100	-	< 100

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP17 1.0 Soil S14-De12478 Dec 11, 2014	TP18 0-0.15 Soil S14-De12479 Dec 11, 2014	TP18 1.0 Soil S14-De12482 Dec 11, 2014	TP19 0.3 Soil S14-De12484 Dec 11, 2014
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Benzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromoform	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloroform	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	< 0.2	-	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
Styrene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Toluene	0.1	mg/kg	< 0.1	< 0.1	-	< 0.1
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5

Client Sample ID Sample Matrix Eurofins | mgt Sample No. Date Sampled Test/Reference	LOR	Unit	TP17 1.0 Soil S14-De12478 Dec 11, 2014	TP18 0-0.15 Soil S14-De12479 Dec 11, 2014	TP18 1.0 Soil S14-De12482 Dec 11, 2014	TP19 0.3 Soil S14-De12484 Dec 11, 2014
Volatile Organics						
Vinyl chloride	0.5	mg/kg	< 0.5	< 0.5	-	< 0.5
Xylenes - Total	0.3	mg/kg	< 0.3	< 0.3	-	< 0.3
Fluorobenzene (surr.)	1	%	85	88	-	85
4-Bromofluorobenzene (surr.)	1	%	99	95	-	107
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	< 0.5	0.7	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	0.6	1.0	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	1.2	1.3	1.2
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	0.6	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	< 0.5	0.6	< 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	0.6	< 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	0.7	0.9	< 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	0.7	1.0	< 0.5
Total PAH	0.5	mg/kg	< 0.5	1.4	3.7	< 0.5
2-Fluorobiphenyl (surr.)	1	%	98	103	91	100
p-Terphenyl-d14 (surr.)	1	%	100	106	92	105
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	0.2	mg/kg	< 0.2	< 0.2	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	< 1	< 1	< 1

Client Sample ID			TP17 1.0	TP18 0-0.15	TP18 1.0	TP19 0.3
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12478**	**S14-De12479**	**S14-De12482**	**S14-De12484**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Dibutylchlorendate (surr.)	1	%	113	114	129	110
Tetrachloro-m-xylene (surr.)	1	%	105	107	115	101
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	113	114	129	110
% Moisture	0.1	%	8.8	11	14	9.3
Heavy Metals						
Arsenic	2	mg/kg	4.1	5.2	3.9	3.7
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	13	15	28	20
Copper	5	mg/kg	18	17	15	59
Lead	5	mg/kg	42	75	56	220
Mercury	0.05	mg/kg	0.06	0.08	0.08	2.3
Nickel	5	mg/kg	11	7.2	7.4	14
Zinc	5	mg/kg	92	88	77	250

Client Sample ID			TP20 0-0.15	SULFUR NEAR 14	QC02	QC03
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12485**	**S14-De12488**	**S14-De12494**	**S14-De12495**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	20	mg/kg	< 20	-	< 20	< 20
TRH C10-C14	20	mg/kg	< 20	-	< 20	< 20
TRH C15-C28	50	mg/kg	< 50	-	< 50	< 50
TRH C29-C36	50	mg/kg	< 50	-	< 50	< 50
TRH C10-36 (Total)	50	mg/kg	< 50	-	< 50	< 50
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	%	103	-	94	104
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

Client Sample ID			TP20 0-0.15	SULFUR NEAR 14	QC02	QC03
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12485**	**S14-De12488**	**S14-De12494**	**S14-De12495**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-	< 50	< 50
TRH >C16-C34	100	mg/kg	< 100	-	< 100	< 100
TRH >C34-C40	100	mg/kg	< 100	-	< 100	< 100
Volatile Organics						
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-	-	< 0.5
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-	-	< 0.5
4-Chlorotoluene	0.5	mg/kg	< 0.5	-	-	< 0.5
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-	-	< 0.5
Benzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Bromobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromochloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromodichloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromoform	0.5	mg/kg	< 0.5	-	-	< 0.5
Bromomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Carbon disulfide	0.5	mg/kg	< 0.5	-	-	< 0.5
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-	-	< 0.5
Chlorobenzene	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloroethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloroform	0.5	mg/kg	< 0.5	-	-	< 0.5
Chloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibromochloromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Dibromomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Ethylbenzene	0.1	mg/kg	< 0.1	-	-	< 0.1
Iodomethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-	-	< 0.5
m&p-Xylenes	0.2	mg/kg	< 0.2	-	-	< 0.2
Methylene Chloride	0.5	mg/kg	< 0.5	-	-	< 0.5
o-Xylene	0.1	mg/kg	< 0.1	-	-	< 0.1
Styrene	0.5	mg/kg	< 0.5	-	-	< 0.5
Tetrachloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Toluene	0.1	mg/kg	< 0.1	-	-	< 0.1

Client Sample ID			TP20 0-0.15	SULFUR NEAR 14	QC02	QC03
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12485**	**S14-De12488**	**S14-De12494**	**S14-De12495**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Volatile Organics						
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichloroethene	0.5	mg/kg	< 0.5	-	-	< 0.5
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-	-	< 0.5
Vinyl chloride	0.5	mg/kg	< 0.5	-	-	< 0.5
Xylenes - Total	0.3	mg/kg	< 0.3	-	-	< 0.3
Fluorobenzene (surr.)	1	%	87	-	-	82
4-Bromofluorobenzene (surr.)	1	%	103	-	-	104
Polycyclic Aromatic Hydrocarbons						
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-	0.6	0.6
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-	1.2	1.2
Acenaphthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Chrysene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Fluorene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Naphthalene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Phenanthrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Pyrene	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PAH	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
2-Fluorobiphenyl (surr.)	1	%	103	-	114	108
p-Terphenyl-d14 (surr.)	1	%	103	-	116	108
Organochlorine Pesticides						
Chlordanes - Total	0.1	mg/kg	< 0.1	-	< 0.1	< 0.1
4.4'-DDD	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
a-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Aldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
b-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
d-BHC	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Dieldrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Heptachlor	0.05	mg/kg	< 0.05	-	< 0.05	0.08

Client Sample ID			TP20 0-0.15	SULFUR NEAR 14	QC02	QC03
Sample Matrix			**Soil**	**Soil**	**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12485**	**S14-De12488**	**S14-De12494**	**S14-De12495**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Organochlorine Pesticides						
Heptachlor epoxide	0.05	mg/kg	< 0.05	-	< 0.05	0.10
Hexachlorobenzene	0.05	mg/kg	< 0.05	-	< 0.05	< 0.05
Methoxychlor	0.2	mg/kg	< 0.2	-	< 0.2	< 0.2
Toxaphene	1	mg/kg	< 1	-	< 1	< 1
Dibutylchlorendate (surr.)	1	%	111	-	124	109
Tetrachloro-m-xylene (surr.)	1	%	113	-	120	96
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1232	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1242	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1248	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1254	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Aroclor-1260	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Total PCB	0.5	mg/kg	< 0.5	-	< 0.5	< 0.5
Dibutylchlorendate (surr.)	1	%	111	-	124	109
Sulphur	100	mg/kg	-	46000	-	-
% Moisture	0.1	%	6.3	0.7	17	17
Heavy Metals						
Arsenic	2	mg/kg	< 2	< 2	7.9	9.3
Cadmium	0.4	mg/kg	< 0.4	< 0.4	< 0.4	< 0.4
Chromium	5	mg/kg	18	< 5	15	11
Copper	5	mg/kg	46	< 5	31	34
Lead	5	mg/kg	< 5	< 5	81	36
Mercury	0.05	mg/kg	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	5	mg/kg	110	< 5	6.2	13
Zinc	5	mg/kg	52	< 5	220	72

Client Sample ID			TP014 0-0.15M	TP11-SULPHUR
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12781**	**S14-De12788**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				
TRH C6-C9	20	mg/kg	< 20	-
TRH C10-C14	20	mg/kg	< 20	-
TRH C15-C28	50	mg/kg	< 50	-
TRH C29-C36	50	mg/kg	< 50	-
TRH C10-36 (Total)	50	mg/kg	< 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	%	98	-

Client Sample ID			TP014 0-0.15M	TP11-SULPHUR
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12781**	**S14-De12788**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit		
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	-
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50	-
TRH >C16-C34	100	mg/kg	< 100	-
TRH >C34-C40	100	mg/kg	< 100	-
Volatile Organics				
1.1-Dichloroethane	0.5	mg/kg	< 0.5	-
1.1-Dichloroethene	0.5	mg/kg	< 0.5	-
1.1.1-Trichloroethane	0.5	mg/kg	< 0.5	-
1.1.1.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-
1.1.2-Trichloroethane	0.5	mg/kg	< 0.5	-
1.1.2.2-Tetrachloroethane	0.5	mg/kg	< 0.5	-
1.2-Dibromoethane	0.5	mg/kg	< 0.5	-
1.2-Dichlorobenzene	0.5	mg/kg	< 0.5	-
1.2-Dichloroethane	0.5	mg/kg	< 0.5	-
1.2-Dichloropropane	0.5	mg/kg	< 0.5	-
1.2.3-Trichloropropane	0.5	mg/kg	< 0.5	-
1.2.4-Trimethylbenzene	0.5	mg/kg	< 0.5	-
1.3-Dichlorobenzene	0.5	mg/kg	< 0.5	-
1.3-Dichloropropane	0.5	mg/kg	< 0.5	-
1.3.5-Trimethylbenzene	0.5	mg/kg	< 0.5	-
1.4-Dichlorobenzene	0.5	mg/kg	< 0.5	-
2-Butanone (MEK)	0.5	mg/kg	< 0.5	-
4-Chlorotoluene	0.5	mg/kg	< 0.5	-
4-Methyl-2-pentanone (MIBK)	0.5	mg/kg	< 0.5	-
Benzene	0.1	mg/kg	< 0.1	-
Bromobenzene	0.5	mg/kg	< 0.5	-
Bromochloromethane	0.5	mg/kg	< 0.5	-
Bromodichloromethane	0.5	mg/kg	< 0.5	-
Bromoform	0.5	mg/kg	< 0.5	-
Bromomethane	0.5	mg/kg	< 0.5	-
Carbon disulfide	0.5	mg/kg	< 0.5	-
Carbon Tetrachloride	0.5	mg/kg	< 0.5	-
Chlorobenzene	0.5	mg/kg	< 0.5	-
Chloroethane	0.5	mg/kg	< 0.5	-
Chloroform	0.5	mg/kg	< 0.5	-
Chloromethane	0.5	mg/kg	< 0.5	-
cis-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-
cis-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-
Dibromochloromethane	0.5	mg/kg	< 0.5	-
Dibromomethane	0.5	mg/kg	< 0.5	-
Dichlorodifluoromethane	0.5	mg/kg	< 0.5	-
Ethylbenzene	0.1	mg/kg	< 0.1	-
Iodomethane	0.5	mg/kg	< 0.5	-
Isopropyl benzene (Cumene)	0.5	mg/kg	< 0.5	-
m&p-Xylenes	0.2	mg/kg	< 0.2	-
Methylene Chloride	0.5	mg/kg	< 0.5	-

Client Sample ID			TP014 0-0.15M	TP11-SULPHUR
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12781**	**S14-De12788**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit		
Volatile Organics				
o-Xylene	0.1	mg/kg	< 0.1	-
Styrene	0.5	mg/kg	< 0.5	-
Tetrachloroethene	0.5	mg/kg	< 0.5	-
Toluene	0.1	mg/kg	< 0.1	-
trans-1.2-Dichloroethene	0.5	mg/kg	< 0.5	-
trans-1.3-Dichloropropene	0.5	mg/kg	< 0.5	-
Trichloroethene	0.5	mg/kg	< 0.5	-
Trichlorofluoromethane	0.5	mg/kg	< 0.5	-
Vinyl chloride	0.5	mg/kg	< 0.5	-
Xylenes - Total	0.3	mg/kg	< 0.3	-
Fluorobenzene (surr.)	1	%	89	-
4-Bromofluorobenzene (surr.)	1	%	98	-
Polycyclic Aromatic Hydrocarbons				
Benzo(a)pyrene TEQ (lower bound) *	0.5	mg/kg	< 0.5	-
Benzo(a)pyrene TEQ (medium bound) *	0.5	mg/kg	0.6	-
Benzo(a)pyrene TEQ (upper bound) *	0.5	mg/kg	1.2	-
Acenaphthene	0.5	mg/kg	< 0.5	-
Acenaphthylene	0.5	mg/kg	< 0.5	-
Anthracene	0.5	mg/kg	< 0.5	-
Benz(a)anthracene	0.5	mg/kg	< 0.5	-
Benzo(a)pyrene	0.5	mg/kg	< 0.5	-
Benzo(b&j)fluoranthene[N07]	0.5	mg/kg	< 0.5	-
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5	-
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5	-
Chrysene	0.5	mg/kg	< 0.5	-
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5	-
Fluoranthene	0.5	mg/kg	< 0.5	-
Fluorene	0.5	mg/kg	< 0.5	-
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5	-
Naphthalene	0.5	mg/kg	< 0.5	-
Phenanthrene	0.5	mg/kg	< 0.5	-
Pyrene	0.5	mg/kg	< 0.5	-
Total PAH	0.5	mg/kg	< 0.5	-
2-Fluorobiphenyl (surr.)	1	%	94	-
p-Terphenyl-d14 (surr.)	1	%	96	-
Organochlorine Pesticides				
Chlordanes - Total	0.1	mg/kg	< 0.1	-
4.4'-DDD	0.05	mg/kg	< 0.05	-
4.4'-DDE	0.05	mg/kg	< 0.05	-
4.4'-DDT	0.05	mg/kg	< 0.05	-
a-BHC	0.05	mg/kg	< 0.05	-
Aldrin	0.05	mg/kg	< 0.05	-
b-BHC	0.05	mg/kg	< 0.05	-
d-BHC	0.05	mg/kg	< 0.05	-
Dieldrin	0.05	mg/kg	< 0.05	-
Endosulfan I	0.05	mg/kg	< 0.05	-
Endosulfan II	0.05	mg/kg	< 0.05	-
Endosulfan sulphate	0.05	mg/kg	< 0.05	-
Endrin	0.05	mg/kg	< 0.05	-

Client Sample ID			TP014 0-0.15M	TP11-SULPHUR
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S14-De12781**	**S14-De12788**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit		
Organochlorine Pesticides				
Endrin aldehyde	0.05	mg/kg	< 0.05	-
Endrin ketone	0.05	mg/kg	< 0.05	-
g-BHC (Lindane)	0.05	mg/kg	< 0.05	-
Heptachlor	0.05	mg/kg	< 0.05	-
Heptachlor epoxide	0.05	mg/kg	< 0.05	-
Hexachlorobenzene	0.05	mg/kg	< 0.05	-
Methoxychlor	0.2	mg/kg	< 0.2	-
Toxaphene	1	mg/kg	< 1	-
Dibutylchlorendate (surr.)	1	%	90	-
Tetrachloro-m-xylene (surr.)	1	%	108	-
Polychlorinated Biphenyls (PCB)				
Aroclor-1016	0.5	mg/kg	< 0.5	-
Aroclor-1232	0.5	mg/kg	< 0.5	-
Aroclor-1242	0.5	mg/kg	< 0.5	-
Aroclor-1248	0.5	mg/kg	< 0.5	-
Aroclor-1254	0.5	mg/kg	< 0.5	-
Aroclor-1260	0.5	mg/kg	< 0.5	-
Total PCB	0.5	mg/kg	< 0.5	-
Dibutylchlorendate (surr.)	1	%	90	-
Sulphur	100	mg/kg	-	69000
% Moisture	0.1	%	19	16
Heavy Metals				
Arsenic	2	mg/kg	4.8	-
Cadmium	0.4	mg/kg	< 0.4	-
Chromium	5	mg/kg	9.2	-
Copper	5	mg/kg	17	-
Lead	5	mg/kg	21	-
Mercury	0.05	mg/kg	< 0.05	-
Nickel	5	mg/kg	5.6	-
Zinc	5	mg/kg	37	-

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 15, 2014	14 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Dec 15, 2014	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 15, 2014	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 15, 2014	14 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Dec 15, 2014	14 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Dec 15, 2014	28 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8	Sydney	Dec 16, 2014	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Volatile Organics	Sydney	Dec 15, 2014	7 Day
- Method: E016 Volatile Organic Compounds (VOC)			
Sulphur	Sydney	Dec 16, 2014	7 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
% Moisture	Sydney	Dec 15, 2014	14 Day
- Method: LTM-GEN-7080 'Moisture Content in Soil or other Solid Matrices byGravimetry'			

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NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 191 MILLER ROAD CHESTER HILL 50419

Order No.:
Report #: 442273
Phone: 02 8245 0300
Fax:

Received: Dec 12, 2014 2:00 PM
Due: Dec 19, 2014
Priority: 5 Day
Contact Name: Tyler Creese

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
TP01 0-0.15M	Dec 11, 2014		Soil	S14-De12435	X	X								X	X
TP01 0.3M	Dec 11, 2014		Soil	S14-De12436			X								
TP01 0.5M	Dec 11, 2014		Soil	S14-De12437			X								
TP01 1.0M	Dec 11, 2014		Soil	S14-De12438	X	X			X	X	X		X		
TP03 0-0.15M	Dec 11, 2014		Soil	S14-De12439	X	X								X	X
TP03 0.3M	Dec 11, 2014		Soil	S14-De12440			X								
TP03 0.5M	Dec 11, 2014		Soil	S14-De12441			X								
TP03 1.0M	Dec 11, 2014		Soil	S14-De12442			X								
TP04 0-0.15M	Dec 11, 2014		Soil	S14-De12443			X								
TP04 0.3M	Dec 11, 2014		Soil	S14-De12444	X	X									X

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP04 0.5M	Dec 11, 2014		Soil	S14-De12445			X								
TP04 1.0M	Dec 11, 2014		Soil	S14-De12446			X								
TP05 0.5M	Dec 11, 2014		Soil	S14-De12447	X	X								X	X
TP05 1.0M	Dec 11, 2014		Soil	S14-De12448			X								
TP05 2.0M	Dec 11, 2014		Soil	S14-De12449	X	X			X	X	X		X		
TP06 0-0.15M	Dec 11, 2014		Soil	S14-De12450			X								
TP06 0.3M	Dec 11, 2014		Soil	S14-De12451	X	X									X
TP06 0.5M	Dec 11, 2014		Soil	S14-De12452			X								
TP06 1.1M	Dec 11, 2014		Soil	S14-De12453			X								
TP07 0.5M	Dec 11, 2014		Soil	S14-De12454			X								
TP07 1.0M	Dec 11, 2014		Soil	S14-De12455			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP07 2.0M	Dec 11, 2014		Soil	S14-De12456	X	X			X	X	X		X		
TP09 0-0.15M	Dec 11, 2014		Soil	S14-De12457	X	X									X
TP11 0-0.15M	Dec 11, 2014		Soil	S14-De12458	X	X									X
TP11 0.3M	Dec 11, 2014		Soil	S14-De12459			X								
TP11 0.5M	Dec 11, 2014		Soil	S14-De12460			X								
TP11 1.0M	Dec 11, 2014		Soil	S14-De12461	X	X		X	X	X	X		X		
TP14 0.3M	Dec 11, 2014		Soil	S14-De12462			X								
TP14 0.5M	Dec 11, 2014		Soil	S14-De12463			X								
TP14 1.0M	Dec 11, 2014		Soil	S14-De12464			X								
TP10 0-0.15	Dec 11, 2014		Soil	S14-De12465	X	X								X	X
TP10 0.3	Dec 11, 2014		Soil	S14-De12466			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP10 0.5	Dec 11, 2014		Soil	S14-De12467			X								
TP10 1.0	Dec 11, 2014		Soil	S14-De12468			X								
TP12 0-0.15	Dec 11, 2014		Soil	S14-De12469			X								
TP12 0.3	Dec 11, 2014		Soil	S14-De12470	X	X								X	X
TP12 0.5	Dec 11, 2014		Soil	S14-De12471			X								
TP16 0-0.15	Dec 11, 2014		Soil	S14-De12472	X	X								X	X
TP16 0.3	Dec 11, 2014		Soil	S14-De12473			X								
TP16 0.5	Dec 11, 2014		Soil	S14-De12474	X	X			X	X	X		X		
TP17 0-0.15	Dec 11, 2014		Soil	S14-De12475	X	X									X
TP17 0.3	Dec 11, 2014		Soil	S14-De12476			X								
TP17 0.5	Dec 11, 2014		Soil	S14-De12477			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP17 1.0	Dec 11, 2014		Soil	S14-De12478	X	X								X	X
TP18 0-0.15	Dec 11, 2014		Soil	S14-De12479	X	X								X	X
TP18 0.3	Dec 11, 2014		Soil	S14-De12480			X								
TP18 0.5	Dec 11, 2014		Soil	S14-De12481			X								
TP18 1.0	Dec 11, 2014		Soil	S14-De12482	X	X			X	X	X		X		
TP19 0-0.15	Dec 11, 2014		Soil	S14-De12483			X								
TP19 0.3	Dec 11, 2014		Soil	S14-De12484	X	X								X	X
TP20 0-0.15	Dec 11, 2014		Soil	S14-De12485	X	X								X	X
TP20 0.3	Dec 11, 2014		Soil	S14-De12486			X								
TP20 0.5	Dec 11, 2014		Soil	S14-De12487			X								
SULFUR NEAR 14	Dec 11, 2014		Soil	S14-De12488	X			X			X				

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
DRAIN	Dec 11, 2014		Water	S14-De12489				X							X
RINSATE	Dec 11, 2014		Water	S14-De12490											X
TRIP SPIKE	Dec 11, 2014		Water	S14-De12491								X			
TRIP BLANK	Dec 11, 2014		Water	S14-De12492								X			
QC01	Dec 11, 2014		Soil	S14-De12493			X								
QC02	Dec 11, 2014		Soil	S14-De12494	X	X									X
QC03	Dec 11, 2014		Soil	S14-De12495	X	X								X	X
QC04	Dec 11, 2014		Soil	S14-De12496			X								
TP014 0-0.15M	Dec 11, 2014		Soil	S14-De12781	X	X								X	X
TP16-1M	Dec 11, 2014		Soil	S14-De12782			X								
TP11-SULPHUR	Dec 11, 2014		Soil	S14-De12788	X			X							

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Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	442273	**Due:**	Dec 19, 2014
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Tyler Creese
Project Name:	191 MILLER ROAD CHESTER HILL 50419				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP19-SULPHUR	Dec 11, 2014		Soil	S14-De12789			X								

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 LORs are matrix dependant. Quoted LORs 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 Advice.

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: Nephelometric Turbidity Units

TERMS

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

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.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
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	
TRH C10-36 (Total)	mg/kg	< 0			50	Pass	
Method Blank							
BTEX							
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							
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							
Volatile Organics							
1.1-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
1.1.1-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.1.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2-Trichloroethane	mg/kg	< 0.5			0.5	Pass	
1.1.2.2-Tetrachloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dibromoethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloroethane	mg/kg	< 0.5			0.5	Pass	
1.2-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.3-Trichloropropane	mg/kg	< 0.5			0.5	Pass	
1.2.4-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
1.3-Dichloropropane	mg/kg	< 0.5			0.5	Pass	
1.3.5-Trimethylbenzene	mg/kg	< 0.5			0.5	Pass	
1.4-Dichlorobenzene	mg/kg	< 0.5			0.5	Pass	
2-Butanone (MEK)	mg/kg	< 0.5			0.5	Pass	
4-Chlorotoluene	mg/kg	< 0.5			0.5	Pass	
4-Methyl-2-pentanone (MIBK)	mg/kg	< 0.5			0.5	Pass	
Bromobenzene	mg/kg	< 0.5			0.5	Pass	
Bromochloromethane	mg/kg	< 0.5			0.5	Pass	
Bromodichloromethane	mg/kg	< 0.5			0.5	Pass	
Bromoform	mg/kg	< 0.5			0.5	Pass	
Bromomethane	mg/kg	< 0.5			0.5	Pass	
Carbon disulfide	mg/kg	< 0.5			0.5	Pass	
Carbon Tetrachloride	mg/kg	< 0.5			0.5	Pass	
Chlorobenzene	mg/kg	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chloroethane	mg/kg	< 0.5			0.5	Pass	
Chloroform	mg/kg	< 0.5			0.5	Pass	
Chloromethane	mg/kg	< 0.5			0.5	Pass	
cis-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
cis-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Dibromochloromethane	mg/kg	< 0.5			0.5	Pass	
Dibromomethane	mg/kg	< 0.5			0.5	Pass	
Dichlorodifluoromethane	mg/kg	< 0.5			0.5	Pass	
Iodomethane	mg/kg	< 0.5			0.5	Pass	
Isopropyl benzene (Cumene)	mg/kg	< 0.5			0.5	Pass	
Methylene Chloride	mg/kg	< 0.5			0.5	Pass	
Styrene	mg/kg	< 0.5			0.5	Pass	
Tetrachloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.2-Dichloroethene	mg/kg	< 0.5			0.5	Pass	
trans-1.3-Dichloropropene	mg/kg	< 0.5			0.5	Pass	
Trichloroethene	mg/kg	< 0.5			0.5	Pass	
Trichlorofluoromethane	mg/kg	< 0.5			0.5	Pass	
Vinyl chloride	mg/kg	< 0.5			0.5	Pass	
Method Blank							
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							
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	
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	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
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	< 0.2			0.2	Pass	
Toxaphene	mg/kg	< 1			1	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/kg	< 0.5			0.5	Pass	
Aroclor-1232	mg/kg	< 0.5			0.5	Pass	
Aroclor-1242	mg/kg	< 0.5			0.5	Pass	
Aroclor-1248	mg/kg	< 0.5			0.5	Pass	
Aroclor-1254	mg/kg	< 0.5			0.5	Pass	
Aroclor-1260	mg/kg	< 0.5			0.5	Pass	
Total PCB	mg/kg	< 0			0.5	Pass	
Method Blank							
Sulphur	mg/kg	< 100			100	Pass	
Method Blank							
Heavy Metals							
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	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.05			0.05	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	99			70-130	Pass	
TRH C10-C14	%	80			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	93			70-130	Pass	
Toluene	%	93			70-130	Pass	
Ethylbenzene	%	95			70-130	Pass	
m&p-Xylenes	%	98			70-130	Pass	
o-Xylene	%	106			70-130	Pass	
Xylenes - Total	%	101			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	122			70-130	Pass	
TRH C6-C10	%	92			70-130	Pass	
TRH >C10-C16	%	88			70-130	Pass	
LCS - % Recovery							
Volatile Organics							
1.1-Dichloroethane	%	108			75-125	Pass	
1.1-Dichloroethene	%	108			70-130	Pass	
1.1.1-Trichloroethane	%	104			70-130	Pass	
1.1.1.2-Tetrachloroethane	%	82			70-130	Pass	
1.1.2-Trichloroethane	%	92			70-130	Pass	
1.1.2.2-Tetrachloroethane	%	95			70-130	Pass	
1.2-Dibromoethane	%	90			70-130	Pass	
1.2-Dichlorobenzene	%	94			70-130	Pass	
1.2-Dichloroethane	%	91			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1.2-Dichloropropane	%	88			70-130	Pass	
1.2.3-Trichloropropane	%	85			70-130	Pass	
1.2.4-Trimethylbenzene	%	87			70-130	Pass	
1.3-Dichlorobenzene	%	91			70-130	Pass	
1.3-Dichloropropane	%	93			70-130	Pass	
1.3.5-Trimethylbenzene	%	87			70-130	Pass	
1.4-Dichlorobenzene	%	93			70-130	Pass	
2-Butanone (MEK)	%	106			70-130	Pass	
4-Chlorotoluene	%	87			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	%	101			70-130	Pass	
Bromobenzene	%	80			70-130	Pass	
Bromochloromethane	%	116			70-130	Pass	
Bromodichloromethane	%	79			70-130	Pass	
Bromoform	%	72			70-130	Pass	
Bromomethane	%	89			70-130	Pass	
Carbon disulfide	%	83			70-130	Pass	
Carbon Tetrachloride	%	102			70-130	Pass	
Chlorobenzene	%	91			70-130	Pass	
Chloroethane	%	76			70-130	Pass	
Chloroform	%	93			70-130	Pass	
Chloromethane	%	114			70-130	Pass	
cis-1.2-Dichloroethene	%	107			70-130	Pass	
cis-1.3-Dichloropropene	%	78			70-130	Pass	
Dibromochloromethane	%	75			70-130	Pass	
Dibromomethane	%	90			70-130	Pass	
Dichlorodifluoromethane	%	119			70-130	Pass	
Iodomethane	%	86			70-130	Pass	
Isopropyl benzene (Cumene)	%	92			70-130	Pass	
Methylene Chloride	%	106			70-130	Pass	
Styrene	%	92			70-130	Pass	
Tetrachloroethene	%	91			70-130	Pass	
trans-1.2-Dichloroethene	%	108			70-130	Pass	
trans-1.3-Dichloropropene	%	78			70-130	Pass	
Trichloroethene	%	90			70-130	Pass	
Trichlorofluoromethane	%	101			70-130	Pass	
Vinyl chloride	%	115			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	121			70-130	Pass	
Acenaphthylene	%	115			70-130	Pass	
Anthracene	%	117			70-130	Pass	
Benz(a)anthracene	%	111			70-130	Pass	
Benzo(a)pyrene	%	117			70-130	Pass	
Benzo(b&j)fluoranthene	%	84			70-130	Pass	
Benzo(g.h.i)perylene	%	121			70-130	Pass	
Benzo(k)fluoranthene	%	119			70-130	Pass	
Chrysene	%	118			70-130	Pass	
Dibenz(a.h)anthracene	%	117			70-130	Pass	
Fluoranthene	%	116			70-130	Pass	
Fluorene	%	118			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	121			70-130	Pass	
Naphthalene	%	117			70-130	Pass	
Phenanthrene	%	111			70-130	Pass	
Pyrene	%	120			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	111			70-130	Pass	
4.4'-DDD	%	123			70-130	Pass	
4.4'-DDE	%	104			70-130	Pass	
4.4'-DDT	%	83			70-130	Pass	
a-BHC	%	97			70-130	Pass	
Aldrin	%	116			70-130	Pass	
b-BHC	%	113			70-130	Pass	
d-BHC	%	89			70-130	Pass	
Dieldrin	%	111			70-130	Pass	
Endosulfan I	%	129			70-130	Pass	
Endosulfan II	%	111			70-130	Pass	
Endosulfan sulphate	%	105			70-130	Pass	
Endrin	%	107			70-130	Pass	
Endrin aldehyde	%	123			70-130	Pass	
Endrin ketone	%	108			70-130	Pass	
g-BHC (Lindane)	%	109			70-130	Pass	
Heptachlor	%	105			70-130	Pass	
Heptachlor epoxide	%	111			70-130	Pass	
Methoxychlor	%	93			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	71			70-130	Pass	
LCS - % Recovery							
Sulphur	%	114			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	104			70-130	Pass	
Cadmium	%	106			70-130	Pass	
Chromium	%	92			70-130	Pass	
Copper	%	98			70-130	Pass	
Lead	%	106			70-130	Pass	
Mercury	%	104			70-130	Pass	
Nickel	%	97			70-130	Pass	
Zinc	%	109			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S14-De12438	CP	%	108			70-130	Pass	
4.4'-DDD	S14-De12438	CP	%	122			70-130	Pass	
4.4'-DDE	S14-De12438	CP	%	104			70-130	Pass	
4.4'-DDT	S14-De12438	CP	%	80			70-130	Pass	
a-BHC	S14-De12438	CP	%	88			70-130	Pass	
Aldrin	S14-De12438	CP	%	112			70-130	Pass	
b-BHC	S14-De12438	CP	%	102			70-130	Pass	
d-BHC	S14-De12438	CP	%	88			70-130	Pass	
Dieldrin	S14-De12438	CP	%	107			70-130	Pass	
Endosulfan I	S14-De12438	CP	%	105			70-130	Pass	
Endosulfan II	S14-De12438	CP	%	106			70-130	Pass	
Endosulfan sulphate	S14-De12438	CP	%	109			70-130	Pass	
Endrin	S14-De12438	CP	%	109			70-130	Pass	
Endrin aldehyde	S14-De12438	CP	%	117			70-130	Pass	
Endrin ketone	S14-De12438	CP	%	116			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
g-BHC (Lindane)	S14-De12438	CP	%	107			70-130	Pass	
Heptachlor	S14-De12438	CP	%	99			70-130	Pass	
Heptachlor epoxide	S14-De12438	CP	%	109			70-130	Pass	
Methoxychlor	S14-De12438	CP	%	101			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S14-De12438	CP	%	71			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-De12438	CP	%	103			70-130	Pass	
Cadmium	S14-De12438	CP	%	108			70-130	Pass	
Chromium	S14-De12438	CP	%	114			70-130	Pass	
Copper	S14-De12438	CP	%	88			70-130	Pass	
Mercury	S14-De12438	CP	%	103			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S14-De12439	CP	%	88			70-130	Pass	
TRH C10-C14	S14-De12439	CP	%	88			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-De12439	CP	%	83			70-130	Pass	
Toluene	S14-De12439	CP	%	83			70-130	Pass	
Ethylbenzene	S14-De12439	CP	%	84			70-130	Pass	
m&p-Xylenes	S14-De12439	CP	%	87			70-130	Pass	
o-Xylene	S14-De12439	CP	%	87			70-130	Pass	
Xylenes - Total	S14-De12439	CP	%	87			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S14-De12439	CP	%	99			70-130	Pass	
TRH C6-C10	S14-De12439	CP	%	83			70-130	Pass	
TRH >C10-C16	S14-De12439	CP	%	100			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethane	S14-De12439	CP	%	116			75-125	Pass	
1.1-Dichloroethene	S14-De12439	CP	%	112			70-130	Pass	
1.1.1-Trichloroethane	S14-De12439	CP	%	112			70-130	Pass	
1.1.1.2-Tetrachloroethane	S14-De12439	CP	%	90			70-130	Pass	
1.1.2-Trichloroethane	S14-De12439	CP	%	91			70-130	Pass	
1.1.2.2-Tetrachloroethane	S14-De12439	CP	%	97			70-130	Pass	
1.2-Dibromoethane	S14-De12439	CP	%	87			70-130	Pass	
1.2-Dichlorobenzene	S14-De12439	CP	%	98			70-130	Pass	
1.2-Dichloroethane	S14-De12439	CP	%	93			70-130	Pass	
1.2-Dichloropropane	S14-De12439	CP	%	87			70-130	Pass	
1.2.3-Trichloropropane	S14-De12439	CP	%	86			70-130	Pass	
1.2.4-Trimethylbenzene	S14-De12439	CP	%	90			70-130	Pass	
1.3-Dichlorobenzene	S14-De12439	CP	%	94			70-130	Pass	
1.3-Dichloropropane	S14-De12439	CP	%	91			70-130	Pass	
1.3.5-Trimethylbenzene	S14-De12439	CP	%	91			70-130	Pass	
1.4-Dichlorobenzene	S14-De12439	CP	%	96			70-130	Pass	
2-Butanone (MEK)	S14-De12439	CP	%	104			70-130	Pass	
4-Chlorotoluene	S14-De12439	CP	%	90			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	S14-De12439	CP	%	85			70-130	Pass	
Bromobenzene	S14-De12439	CP	%	86			70-130	Pass	
Bromochloromethane	S14-De12439	CP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Bromodichloromethane	S14-De12439	CP	%	78			70-130	Pass	
Bromomethane	S14-De12439	CP	%	76			70-130	Pass	
Carbon disulfide	S14-De12439	CP	%	85			70-130	Pass	
Carbon Tetrachloride	S14-De12439	CP	%	111			70-130	Pass	
Chlorobenzene	S14-De12439	CP	%	99			70-130	Pass	
Chloroethane	S14-De12439	CP	%	70			70-130	Pass	
Chloroform	S14-De12439	CP	%	104			70-130	Pass	
Chloromethane	S14-De12439	CP	%	119			70-130	Pass	
cis-1.2-Dichloroethene	S14-De12439	CP	%	116			70-130	Pass	
cis-1.3-Dichloropropene	S14-De12439	CP	%	75			70-130	Pass	
Dibromochloromethane	S14-De12439	CP	%	71			70-130	Pass	
Dibromomethane	S14-De12439	CP	%	89			70-130	Pass	
Dichlorodifluoromethane	S14-De12439	CP	%	119			70-130	Pass	
Iodomethane	S14-De12439	CP	%	95			70-130	Pass	
Isopropyl benzene (Cumene)	S14-De12439	CP	%	99			70-130	Pass	
Methylene Chloride	S14-De12439	CP	%	114			70-130	Pass	
Styrene	S14-De12439	CP	%	98			70-130	Pass	
Tetrachloroethene	S14-De12439	CP	%	90			70-130	Pass	
trans-1.2-Dichloroethene	S14-De12439	CP	%	117			70-130	Pass	
trans-1.3-Dichloropropene	S14-De12439	CP	%	75			70-130	Pass	
Trichloroethene	S14-De12439	CP	%	91			70-130	Pass	
Trichlorofluoromethane	S14-De12439	CP	%	109			70-130	Pass	
Vinyl chloride	S14-De12439	CP	%	119			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Toxaphene	S14-De15002	NCP	%	116			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S14-De12465	CP	%	119			70-130	Pass	
Acenaphthylene	S14-De12465	CP	%	119			70-130	Pass	
Anthracene	S14-De12465	CP	%	118			70-130	Pass	
Benz(a)anthracene	S14-De12465	CP	%	105			70-130	Pass	
Benzo(a)pyrene	S14-De12465	CP	%	98			70-130	Pass	
Benzo(b&j)fluoranthene	S14-De12465	CP	%	76			70-130	Pass	
Benzo(g.h.i)perylene	S14-De12465	CP	%	122			70-130	Pass	
Benzo(k)fluoranthene	S14-De12465	CP	%	125			70-130	Pass	
Chrysene	S14-De12465	CP	%	113			70-130	Pass	
Dibenz(a.h)anthracene	S14-De12465	CP	%	111			70-130	Pass	
Fluoranthene	S14-De12465	CP	%	124			70-130	Pass	
Fluorene	S14-De12465	CP	%	118			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S14-De12465	CP	%	125			70-130	Pass	
Naphthalene	S14-De12465	CP	%	118			70-130	Pass	
Phenanthrene	S14-De12465	CP	%	119			70-130	Pass	
Pyrene	S14-De12465	CP	%	123			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
Chlordanes - Total	S14-De12465	CP	%	118			70-130	Pass	
4.4'-DDD	S14-De12465	CP	%	123			70-130	Pass	
4.4'-DDE	S14-De12465	CP	%	124			70-130	Pass	
4.4'-DDT	S14-De12465	CP	%	74			70-130	Pass	
a-BHC	S14-De12465	CP	%	97			70-130	Pass	
Aldrin	S14-De12465	CP	%	112			70-130	Pass	
b-BHC	S14-De12465	CP	%	112			70-130	Pass	
d-BHC	S14-De12465	CP	%	84			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Dieldrin	S14-De12465	CP	%	124			70-130	Pass	
Endosulfan I	S14-De12465	CP	%	93			70-130	Pass	
Endosulfan II	S14-De12465	CP	%	102			70-130	Pass	
Endosulfan sulphate	S14-De12465	CP	%	98			70-130	Pass	
Endrin	S14-De12465	CP	%	101			70-130	Pass	
Endrin aldehyde	S14-De12465	CP	%	117			70-130	Pass	
Endrin ketone	S14-De12465	CP	%	105			70-130	Pass	
g-BHC (Lindane)	S14-De12465	CP	%	108			70-130	Pass	
Heptachlor	S14-De12465	CP	%	93			70-130	Pass	
Heptachlor epoxide	S14-De12465	CP	%	108			70-130	Pass	
Methoxychlor	S14-De12465	CP	%	115			70-130	Pass	
Spike - % Recovery									
Polychlorinated Biphenyls (PCB)				Result 1					
Aroclor-1260	S14-De12465	CP	%	112			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-De12465	CP	%	97			70-130	Pass	
Cadmium	S14-De12465	CP	%	104			70-130	Pass	
Chromium	S14-De12465	CP	%	91			70-130	Pass	
Copper	S14-De12465	CP	%	82			70-130	Pass	
Lead	S14-De12465	CP	%	100			70-130	Pass	
Mercury	S14-De12465	CP	%	107			70-130	Pass	
Nickel	S14-De12465	CP	%	92			70-130	Pass	
Zinc	S14-De12465	CP	%	110			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	S14-De12478	CP	%	97			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-De12478	CP	%	88			70-130	Pass	
Toluene	S14-De12478	CP	%	95			70-130	Pass	
Ethylbenzene	S14-De12478	CP	%	95			70-130	Pass	
m&p-Xylenes	S14-De12478	CP	%	97			70-130	Pass	
o-Xylene	S14-De12478	CP	%	97			70-130	Pass	
Xylenes - Total	S14-De12478	CP	%	97			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S14-De12478	CP	%	109			70-130	Pass	
TRH C6-C10	S14-De12478	CP	%	92			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-De12488	CP	%	98			70-130	Pass	
Cadmium	S14-De12488	CP	%	99			70-130	Pass	
Chromium	S14-De12488	CP	%	89			70-130	Pass	
Copper	S14-De12488	CP	%	90			70-130	Pass	
Lead	S14-De12488	CP	%	87			70-130	Pass	
Mercury	S14-De12488	CP	%	100			70-130	Pass	
Nickel	S14-De12488	CP	%	92			70-130	Pass	
Zinc	S14-De12488	CP	%	104			70-130	Pass	
Spike - % Recovery									
Polycyclic Aromatic Hydrocarbons				Result 1					
Acenaphthene	S14-De12494	CP	%	109			70-130	Pass	
Acenaphthylene	S14-De12494	CP	%	100			70-130	Pass	
Anthracene	S14-De12494	CP	%	112			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Benz(a)anthracene	S14-De12494	CP	%	110			70-130	Pass	
Benzo(a)pyrene	S14-De12494	CP	%	111			70-130	Pass	
Benzo(b&j)fluoranthene	S14-De12494	CP	%	114			70-130	Pass	
Benzo(g.h.i)perylene	S14-De12494	CP	%	119			70-130	Pass	
Benzo(k)fluoranthene	S14-De12494	CP	%	112			70-130	Pass	
Chrysene	S14-De12494	CP	%	115			70-130	Pass	
Dibenz(a.h)anthracene	S14-De12494	CP	%	114			70-130	Pass	
Fluoranthene	S14-De12494	CP	%	122			70-130	Pass	
Fluorene	S14-De12494	CP	%	107			70-130	Pass	
Indeno(1.2.3-cd)pyrene	S14-De12494	CP	%	122			70-130	Pass	
Naphthalene	S14-De12494	CP	%	101			70-130	Pass	
Phenanthrene	S14-De12494	CP	%	109			70-130	Pass	
Pyrene	S14-De12494	CP	%	122			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-De12781	CP	%	94			70-130	Pass	
Toluene	S14-De12781	CP	%	93			70-130	Pass	
Ethylbenzene	S14-De12781	CP	%	89			70-130	Pass	
m&p-Xylenes	S14-De12781	CP	%	90			70-130	Pass	
o-Xylene	S14-De12781	CP	%	91			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S14-De12781	CP	%	119			70-130	Pass	
Spike - % Recovery									
Volatile Organics				Result 1					
1.1-Dichloroethane	S14-De12781	CP	%	107			75-125	Pass	
1.1-Dichloroethene	S14-De12781	CP	%	104			70-130	Pass	
1.1.1-Trichloroethane	S14-De12781	CP	%	107			70-130	Pass	
1.1.1.2-Tetrachloroethane	S14-De12781	CP	%	80			70-130	Pass	
1.1.2-Trichloroethane	S14-De12781	CP	%	91			70-130	Pass	
1.1.2.2-Tetrachloroethane	S14-De12781	CP	%	84			70-130	Pass	
1.2-Dibromoethane	S14-De12781	CP	%	88			70-130	Pass	
1.2-Dichlorobenzene	S14-De12781	CP	%	101			70-130	Pass	
1.2-Dichloroethane	S14-De12781	CP	%	96			70-130	Pass	
1.2-Dichloropropane	S14-De12781	CP	%	91			70-130	Pass	
1.2.3-Trichloropropane	S14-De12781	CP	%	88			70-130	Pass	
1.2.4-Trimethylbenzene	S14-De12781	CP	%	94			70-130	Pass	
1.3-Dichlorobenzene	S14-De12781	CP	%	98			70-130	Pass	
1.3-Dichloropropane	S14-De12781	CP	%	93			70-130	Pass	
1.3.5-Trimethylbenzene	S14-De12781	CP	%	95			70-130	Pass	
1.4-Dichlorobenzene	S14-De12781	CP	%	100			70-130	Pass	
2-Butanone (MEK)	S14-De12781	CP	%	91			70-130	Pass	
4-Chlorotoluene	S14-De12781	CP	%	96			70-130	Pass	
4-Methyl-2-pentanone (MIBK)	S14-De12781	CP	%	80			70-130	Pass	
Bromobenzene	S14-De12781	CP	%	90			70-130	Pass	
Bromochloromethane	S14-De12781	CP	%	105			70-130	Pass	
Bromodichloromethane	S14-De12781	CP	%	82			70-130	Pass	
Bromomethane	S14-De12781	CP	%	76			70-130	Pass	
Carbon disulfide	S14-De12781	CP	%	76			70-130	Pass	
Carbon Tetrachloride	S14-De12781	CP	%	104			70-130	Pass	
Chlorobenzene	S14-De12781	CP	%	89			70-130	Pass	
Chloroethane	S14-De12781	CP	%	76			70-130	Pass	
Chloroform	S14-De12781	CP	%	97			70-130	Pass	
Chloromethane	S14-De12781	CP	%	103			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
cis-1.2-Dichloroethene	S14-De12781	CP	%	113			70-130	Pass	
cis-1.3-Dichloropropene	S14-De12781	CP	%	77			70-130	Pass	
Dibromochloromethane	S14-De12781	CP	%	72			70-130	Pass	
Dibromomethane	S14-De12781	CP	%	90			70-130	Pass	
Dichlorodifluoromethane	S14-De12781	CP	%	107			70-130	Pass	
Iodomethane	S14-De12781	CP	%	84			70-130	Pass	
Isopropyl benzene (Cumene)	S14-De12781	CP	%	88			70-130	Pass	
Methylene Chloride	S14-De12781	CP	%	104			70-130	Pass	
Styrene	S14-De12781	CP	%	84			70-130	Pass	
Tetrachloroethene	S14-De12781	CP	%	95			70-130	Pass	
trans-1.2-Dichloroethene	S14-De12781	CP	%	109			70-130	Pass	
trans-1.3-Dichloropropene	S14-De12781	CP	%	77			70-130	Pass	
Trichloroethene	S14-De12781	CP	%	102			70-130	Pass	
Trichlorofluoromethane	S14-De12781	CP	%	101			70-130	Pass	
Vinyl chloride	S14-De12781	CP	%	118			70-130	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	S14-De12435	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	S14-De12435	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	S14-De12435	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH C29-C36	S14-De12435	CP	mg/kg	< 50	< 50	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S14-De12435	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S14-De12435	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S14-De12435	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S14-De12435	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
o-Xylene	S14-De12435	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S14-De12435	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S14-De12435	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S14-De12435	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	S14-De12435	CP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	S14-De12435	CP	mg/kg	< 100	< 100	<1	30%	Pass	
TRH >C34-C40	S14-De12435	CP	mg/kg	< 100	< 100	<1	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate								
Volatile Organics				Result 1	Result 2	RPD		
1.3.5-Trimethylbenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
1.4-Dichlorobenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
2-Butanone (MEK)	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Chlorotoluene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
4-Methyl-2-pentanone (MIBK)	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromobenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromochloromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromodichloromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromoform	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Bromomethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon disulfide	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Carbon Tetrachloride	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chlorobenzene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloroform	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chloromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.2-Dichloroethene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
cis-1.3-Dichloropropene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromochloromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibromomethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dichlorodifluoromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Iodomethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Isopropyl benzene (Cumene)	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Methylene Chloride	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Styrene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Tetrachloroethene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.2-Dichloroethene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
trans-1.3-Dichloropropene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichloroethene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Trichlorofluoromethane	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Vinyl chloride	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Duplicate								
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD		
Acenaphthene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Acenaphthylene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Anthracene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benz(a)anthracene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(a)pyrene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(b&j)fluoranthene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(g.h.i)perylene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Benzo(k)fluoranthene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Chrysene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Dibenz(a.h)anthracene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluoranthene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Fluorene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Indeno(1.2.3-cd)pyrene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Naphthalene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Phenanthrene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass
Pyrene	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass

Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S14-De12435	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S14-De12435	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S14-De12435	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S14-De12435	CP	%	4.6	4.8	4.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S14-De12435	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S14-De12435	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S14-De12435	CP	mg/kg	29	25	13	30%	Pass	
Copper	S14-De12435	CP	mg/kg	69	82	17	30%	Pass	
Lead	S14-De12435	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S14-De12435	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S14-De12435	CP	mg/kg	190	190	1.0	30%	Pass	
Zinc	S14-De12435	CP	mg/kg	87	73	18	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Fluorene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S14-De12461	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S14-De12461	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S14-De12461	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S14-De12461	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1254	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S14-De12461	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Sulphur	S14-De12461	CP	mg/kg	1200	1300	10	30%	Pass	
% Moisture	S14-De12461	CP	%	20	18	7.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Cadmium	S14-De12461	CP	mg/kg	< 0.4	**	15	30%	Pass	
Chromium	S14-De12461	CP	mg/kg	18	**	15	30%	Pass	
Zinc	S14-De12461	CP	mg/kg	45	**	10	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	S14-De12475	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S14-De12475	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Toluene	S14-De12475	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Ethylbenzene	S14-De12475	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
m&p-Xylenes	S14-De12475	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	

Duplicate									
BTEX				Result 1	Result 2	RPD			
o-Xylene	S14-De12475	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes - Total	S14-De12475	CP	mg/kg	< 0.3	< 0.3	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S14-De12475	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	S14-De12475	CP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S14-De12475	CP	mg/kg	< 20	< 20	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Acenaphthylene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Anthracene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benz(a)anthracene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(a)pyrene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(b&j)fluoranthene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(g.h.i)perylene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Benzo(k)fluoranthene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chrysene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibenz(a.h)anthracene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluoranthene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Fluorene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Naphthalene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Phenanthrene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Pyrene	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
Chlordanes - Total	S14-De12485	CP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
4.4'-DDD	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
d-BHC	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	S14-De12485	CP	mg/kg	< 0.2	< 0.2	<1	30%	Pass	
Toxaphene	S14-De12485	CP	mg/kg	< 1	< 1	<1	30%	Pass	
Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1016	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1232	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1242	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1248	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Polychlorinated Biphenyls (PCB)				Result 1	Result 2	RPD			
Aroclor-1254	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Aroclor-1260	S14-De12485	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S14-De12485	CP	%	6.3	5.5	14	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S14-De12485	CP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S14-De12485	CP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S14-De12485	CP	mg/kg	18	18	3.0	30%	Pass	
Copper	S14-De12485	CP	mg/kg	46	41	10	30%	Pass	
Lead	S14-De12485	CP	mg/kg	< 5	< 5	<1	30%	Pass	
Mercury	S14-De12485	CP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Nickel	S14-De12485	CP	mg/kg	110	120	5.0	30%	Pass	
Zinc	S14-De12485	CP	mg/kg	52	54	3.0	30%	Pass	
Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
1.1-Dichloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1-Dichloroethene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1-Trichloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.1.2-Tetrachloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2-Trichloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.1.2.2-Tetrachloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dibromoethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichlorobenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2-Dichloropropane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.3-Trichloropropane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.2.4-Trimethylbenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichlorobenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3-Dichloropropane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.3.5-Trimethylbenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
1.4-Dichlorobenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
2-Butanone (MEK)	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Chlorotoluene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
4-Methyl-2-pentanone (MIBK)	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromobenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromochloromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromodichloromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromoform	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Bromomethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon disulfide	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Carbon Tetrachloride	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chlorobenzene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloroform	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Chloromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.2-Dichloroethene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
cis-1.3-Dichloropropene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromochloromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dibromomethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Dichlorodifluoromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Iodomethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Isopropyl benzene (Cumene)	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Duplicate									
Volatile Organics				Result 1	Result 2	RPD			
Methylene Chloride	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Styrene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Tetrachloroethene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.2-Dichloroethene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
trans-1.3-Dichloropropene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichloroethene	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Trichlorofluoromethane	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
Vinyl chloride	S14-De12495	CP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	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
R14	These results have been confirmed by repeat analysis

Authorised By

Charl Du Preez	Analytical Services Manager
Bob Symons	Senior Analyst-Inorganic (NSW)
Ivan Taylor	Senior Analyst-Metal (NSW)
Nibha Vaidya	Senior Analyst-Asbestos (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Glenn Jackson

National 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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Certificate of Analysis

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Attention: **Tyler Creese**

Report **442273-W**
Project name 191 MILLER ROAD CHESTER HILL 50419
Received Date Dec 12, 2014

Client Sample ID			**DRAIN**	**RINSATE**	**TRIP SPIKE**	**TRIP BLANK**
Sample Matrix			**Water**	**Water**	**Water**	**Water**
Eurofins | mgt Sample No.			**S14-De12489**	**S14-De12490**	**S14-De12491**	**S14-De12492**
Date Sampled			**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**	**Dec 11, 2014**
Test/Reference	LOR	Unit				
Total Recoverable Hydrocarbons - 1999 NEPM Fractions						
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05	-	-
TRH C15-C28	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C29-C36	0.1	mg/L	< 0.1	< 0.1	-	-
TRH C10-36 (Total)	0.1	mg/L	< 0.1	< 0.1	-	-
BTEX						
Benzene	0.001	mg/L	< 0.001	< 0.001	99%	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001	97%	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001	100%	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002	104%	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001	103%	< 0.001
Xylenes - Total	0.003	mg/L	< 0.003	< 0.003	104%	< 0.003
4-Bromofluorobenzene (surr.)	1	%	86	81	103	81
Total Recoverable Hydrocarbons - 2013 NEPM Fractions						
Naphthalene[N02]	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02	-	-
TRH C6-C10 less BTEX (F1)[N04]	0.02	mg/L	< 0.02	< 0.02	-	-
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C10-C16 less Naphthalene (F2)[N01]	0.05	mg/L	< 0.05	< 0.05	-	-
TRH >C16-C34	0.1	mg/L	0.1	< 0.1	-	-
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1	-	-
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	0.001	mg/L	< 0.001	< 0.001	-	-
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001	-	-
Anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(b&j)fluoranthene[N07]	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(g.h.i)perylene	0.001	mg/L	< 0.001	< 0.001	-	-
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001	-	-
Chrysene	0.001	mg/L	< 0.001	< 0.001	-	-
Dibenz(a.h)anthracene	0.001	mg/L	< 0.001	< 0.001	-	-
Fluoranthene	0.001	mg/L	< 0.001	< 0.001	-	-
Fluorene	0.001	mg/L	< 0.001	< 0.001	-	-
Indeno(1.2.3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Naphthalene	0.001	mg/L	< 0.001	< 0.001	-	-

Client Sample ID			DRAIN	RINSATE	TRIP SPIKE	TRIP BLANK
Sample Matrix			Water	Water	Water	Water
Eurofins | mgt Sample No.			S14-De12489	S14-De12490	S14-De12491	S14-De12492
Date Sampled			Dec 11, 2014	Dec 11, 2014	Dec 11, 2014	Dec 11, 2014
Test/Reference	LOR	Unit				
Polycyclic Aromatic Hydrocarbons						
Phenanthrene	0.001	mg/L	< 0.001	< 0.001	-	-
Pyrene	0.001	mg/L	< 0.001	< 0.001	-	-
Total PAH	0.001	mg/L	< 0.001	< 0.001	-	-
2-Fluorobiphenyl (surr.)	1	%	100	87	-	-
p-Terphenyl-d14 (surr.)	1	%	108	98	-	-
Organochlorine Pesticides						
Chlordanes - Total	0.001	mg/L	< 0.001	< 0.001	-	-
4.4'-DDD	0.0001	mg/L	< 0.0001	< 0.0001	-	-
4.4'-DDE	0.0001	mg/L	< 0.0001	< 0.0001	-	-
4.4'-DDT	0.0001	mg/L	< 0.0001	< 0.0001	-	-
a-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Aldrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
b-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
d-BHC	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Dieldrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan I	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan II	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endosulfan sulphate	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin aldehyde	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Endrin ketone	0.0001	mg/L	< 0.0001	< 0.0001	-	-
g-BHC (Lindane)	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Heptachlor	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Heptachlor epoxide	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Hexachlorobenzene	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Methoxychlor	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Toxaphene	0.01	mg/L	< 1	< 1	-	-
Dibutylchlorendate (surr.)	1	%	96	122	-	-
Tetrachloro-m-xylene (surr.)	1	%	80	76	-	-
Polychlorinated Biphenyls (PCB)						
Aroclor-1016	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1232	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1242	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1248	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1254	0.005	mg/L	< 0.005	< 0.005	-	-
Aroclor-1260	0.005	mg/L	< 0.005	< 0.005	-	-
Total PCB	0.005	mg/L	< 0.005	< 0.005	-	-
Dibutylchlorendate (surr.)	1	%	96	122	-	-
Sulphur	1	mg/L	< 1	-	-	-
Heavy Metals						
Arsenic	0.005	mg/L	0.007	< 0.005	-	-
Cadmium	0.0005	mg/L	< 0.0005	< 0.0005	-	-
Chromium	0.005	mg/L	0.010	< 0.005	-	-
Copper	0.005	mg/L	0.039	< 0.005	-	-
Lead	0.005	mg/L	0.10	< 0.005	-	-
Mercury	0.0001	mg/L	< 0.0001	< 0.0001	-	-
Nickel	0.005	mg/L	0.011	< 0.005	-	-
Zinc	0.005	mg/L	0.18	< 0.005	-	-

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Dec 16, 2014	7 Day
- Method: TRH C6-C36 - LTM-ORG-2010			
BTEX	Sydney	Dec 12, 2014	14 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Dec 16, 2014	7 Day
- Method: TRH C6-C40 - LTM-ORG-2010			
Polycyclic Aromatic Hydrocarbons	Sydney	Dec 16, 2014	7 Day
- Method: E007 Polyaromatic Hydrocarbons (PAH)			
Organochlorine Pesticides	Sydney	Dec 16, 2014	7 Day
- Method: E013 Organochlorine Pesticides (OC)			
Polychlorinated Biphenyls (PCB)	Sydney	Dec 16, 2014	7 Day
- Method: E013 Polychlorinated Biphenyls (PCB)			
Metals M8	Sydney	Dec 17, 2014	28 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			
Sulphur	Sydney	Dec 17, 2014	7 Day
- Method: LTM-MET-3040_R0 TOTAL AND DISSOLVED METALS AND MERCURY IN WATERS BY ICP-MS			

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NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 191 MILLER ROAD CHESTER HILL 50419

Order No.:
Report #: 442273
Phone: 02 8245 0300
Fax:

Received: Dec 12, 2014 2:00 PM
Due: Dec 19, 2014
Priority: 5 Day
Contact Name: Tyler Creese

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
TP01 0-0.15M	Dec 11, 2014		Soil	S14-De12435	X	X								X	X
TP01 0.3M	Dec 11, 2014		Soil	S14-De12436			X								
TP01 0.5M	Dec 11, 2014		Soil	S14-De12437			X								
TP01 1.0M	Dec 11, 2014		Soil	S14-De12438	X	X			X	X	X		X		
TP03 0-0.15M	Dec 11, 2014		Soil	S14-De12439	X	X								X	X
TP03 0.3M	Dec 11, 2014		Soil	S14-De12440			X								
TP03 0.5M	Dec 11, 2014		Soil	S14-De12441			X								
TP03 1.0M	Dec 11, 2014		Soil	S14-De12442			X								
TP04 0-0.15M	Dec 11, 2014		Soil	S14-De12443			X								
TP04 0.3M	Dec 11, 2014		Soil	S14-De12444	X	X									X

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP04 0.5M	Dec 11, 2014		Soil	S14-De12445			X								
TP04 1.0M	Dec 11, 2014		Soil	S14-De12446			X								
TP05 0.5M	Dec 11, 2014		Soil	S14-De12447	X	X								X	X
TP05 1.0M	Dec 11, 2014		Soil	S14-De12448			X								
TP05 2.0M	Dec 11, 2014		Soil	S14-De12449	X	X			X	X	X		X		
TP06 0-0.15M	Dec 11, 2014		Soil	S14-De12450			X								
TP06 0.3M	Dec 11, 2014		Soil	S14-De12451	X	X									X
TP06 0.5M	Dec 11, 2014		Soil	S14-De12452			X								
TP06 1.1M	Dec 11, 2014		Soil	S14-De12453			X								
TP07 0.5M	Dec 11, 2014		Soil	S14-De12454			X								
TP07 1.0M	Dec 11, 2014		Soil	S14-De12455			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP07 2.0M	Dec 11, 2014		Soil	S14-De12456	X	X			X	X	X		X		
TP09 0-0.15M	Dec 11, 2014		Soil	S14-De12457	X	X									X
TP11 0-0.15M	Dec 11, 2014		Soil	S14-De12458	X	X									X
TP11 0.3M	Dec 11, 2014		Soil	S14-De12459			X								
TP11 0.5M	Dec 11, 2014		Soil	S14-De12460			X								
TP11 1.0M	Dec 11, 2014		Soil	S14-De12461	X	X		X	X	X	X		X		
TP14 0.3M	Dec 11, 2014		Soil	S14-De12462			X								
TP14 0.5M	Dec 11, 2014		Soil	S14-De12463			X								
TP14 1.0M	Dec 11, 2014		Soil	S14-De12464			X								
TP10 0-0.15	Dec 11, 2014		Soil	S14-De12465	X	X								X	X
TP10 0.3	Dec 11, 2014		Soil	S14-De12466			X								

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Eurofins | mgt Client Manager: Charl Du Preez

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP10 0.5	Dec 11, 2014		Soil	S14-De12467			X								
TP10 1.0	Dec 11, 2014		Soil	S14-De12468			X								
TP12 0-0.15	Dec 11, 2014		Soil	S14-De12469			X								
TP12 0.3	Dec 11, 2014		Soil	S14-De12470	X	X								X	X
TP12 0.5	Dec 11, 2014		Soil	S14-De12471			X								
TP16 0-0.15	Dec 11, 2014		Soil	S14-De12472	X	X								X	X
TP16 0.3	Dec 11, 2014		Soil	S14-De12473			X								
TP16 0.5	Dec 11, 2014		Soil	S14-De12474	X	X			X	X	X		X		
TP17 0-0.15	Dec 11, 2014		Soil	S14-De12475	X	X									X
TP17 0.3	Dec 11, 2014		Soil	S14-De12476			X								
TP17 0.5	Dec 11, 2014		Soil	S14-De12477			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP17 1.0	Dec 11, 2014		Soil	S14-De12478	X	X								X	X
TP18 0-0.15	Dec 11, 2014		Soil	S14-De12479	X	X								X	X
TP18 0.3	Dec 11, 2014		Soil	S14-De12480			X								
TP18 0.5	Dec 11, 2014		Soil	S14-De12481			X								
TP18 1.0	Dec 11, 2014		Soil	S14-De12482	X	X			X	X	X		X		
TP19 0-0.15	Dec 11, 2014		Soil	S14-De12483			X								
TP19 0.3	Dec 11, 2014		Soil	S14-De12484	X	X								X	X
TP20 0-0.15	Dec 11, 2014		Soil	S14-De12485	X	X								X	X
TP20 0.3	Dec 11, 2014		Soil	S14-De12486			X								
TP20 0.5	Dec 11, 2014		Soil	S14-De12487			X								
SULFUR NEAR 14	Dec 11, 2014		Soil	S14-De12488	X			X			X				

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Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 191 MILLER ROAD CHESTER HILL 50419

Order No.:
Report #: 442273
Phone: 02 8245 0300
Fax:

Received: Dec 12, 2014 2:00 PM
Due: Dec 19, 2014
Priority: 5 Day
Contact Name: Tyler Creese

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
DRAIN	Dec 11, 2014		Water	S14-De12489				X							X
RINSATE	Dec 11, 2014		Water	S14-De12490											X
TRIP SPIKE	Dec 11, 2014		Water	S14-De12491								X			
TRIP BLANK	Dec 11, 2014		Water	S14-De12492								X			
QC01	Dec 11, 2014		Soil	S14-De12493			X								
QC02	Dec 11, 2014		Soil	S14-De12494	X	X									X
QC03	Dec 11, 2014		Soil	S14-De12495	X	X								X	X
QC04	Dec 11, 2014		Soil	S14-De12496			X								
TP014 0-0.15M	Dec 11, 2014		Soil	S14-De12781	X	X								X	X
TP16-1M	Dec 11, 2014		Soil	S14-De12782			X								
TP11-SULPHUR	Dec 11, 2014		Soil	S14-De12788	X			X							

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Company Name:	JBS & G Australia (NSW & WA) P/L	**Order No.:**		**Received:**	Dec 12, 2014 2:00 PM
Address:	Level 1, 50 Margaret St Sydney NSW 2000	**Report #:**	442273	**Due:**	Dec 19, 2014
		Phone:	02 8245 0300	**Priority:**	5 Day
		Fax:		**Contact Name:**	Tyler Creese
Project Name:	191 MILLER ROAD CHESTER HILL 50419				

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP19-SULPHUR	Dec 11, 2014		Soil	S14-De12789			X								

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 LORs are matrix dependant. Quoted LORs 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 Advice.

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: Nephelometric Turbidity Units

TERMS

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

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.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total	mg/L	< 0.003			0.003	Pass	
Method Blank							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	mg/L	< 0.02			0.02	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH C6-C10 less BTEX (F1)	mg/L	< 0.02			0.02	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g.h.i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a.h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1.2.3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Organochlorine Pesticides							
Chlordanes - Total	mg/L	< 0.001			0.001	Pass	
4.4'-DDD	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDE	mg/L	< 0.0001			0.0001	Pass	
4.4'-DDT	mg/L	< 0.0001			0.0001	Pass	
a-BHC	mg/L	< 0.0001			0.0001	Pass	
Aldrin	mg/L	< 0.0001			0.0001	Pass	
b-BHC	mg/L	< 0.0001			0.0001	Pass	
d-BHC	mg/L	< 0.0001			0.0001	Pass	
Dieldrin	mg/L	< 0.0001			0.0001	Pass	
Endosulfan I	mg/L	< 0.0001			0.0001	Pass	
Endosulfan II	mg/L	< 0.0001			0.0001	Pass	
Endosulfan sulphate	mg/L	< 0.0001			0.0001	Pass	
Endrin	mg/L	< 0.0001			0.0001	Pass	
Endrin aldehyde	mg/L	< 0.0001			0.0001	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin ketone	mg/L	< 0.0001			0.0001	Pass	
g-BHC (Lindane)	mg/L	< 0.0001			0.0001	Pass	
Heptachlor	mg/L	< 0.0001			0.0001	Pass	
Heptachlor epoxide	mg/L	< 0.0001			0.0001	Pass	
Hexachlorobenzene	mg/L	< 0.0001			0.0001	Pass	
Methoxychlor	mg/L	< 0.0001			0.0001	Pass	
Method Blank							
Polychlorinated Biphenyls (PCB)							
Aroclor-1016	mg/L	< 0.005			0.005	Pass	
Aroclor-1232	mg/L	< 0.005			0.005	Pass	
Aroclor-1242	mg/L	< 0.005			0.005	Pass	
Aroclor-1248	mg/L	< 0.005			0.005	Pass	
Aroclor-1254	mg/L	< 0.005			0.005	Pass	
Aroclor-1260	mg/L	< 0.005			0.005	Pass	
Total PCB	mg/L	< 0.005			0.005	Pass	
Method Blank							
Sulphur	mg/L	< 1			1	Pass	
Method Blank							
Heavy Metals							
Arsenic	mg/L	< 0.005			0.005	Pass	
Cadmium	mg/L	< 0.0005			0.0005	Pass	
Chromium	mg/L	< 0.005			0.005	Pass	
Copper	mg/L	< 0.005			0.005	Pass	
Lead	mg/L	< 0.005			0.005	Pass	
Mercury	mg/L	< 0.0001			0.0001	Pass	
Nickel	mg/L	< 0.005			0.005	Pass	
Zinc	mg/L	< 0.005			0.005	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions							
TRH C6-C9	%	87			70-130	Pass	
TRH C10-C14	%	81			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	103			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	105			70-130	Pass	
m&p-Xylenes	%	110			70-130	Pass	
o-Xylene	%	107			70-130	Pass	
Xylenes - Total	%	109			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 2013 NEPM Fractions							
Naphthalene	%	115			70-130	Pass	
TRH C6-C10	%	93			70-130	Pass	
TRH >C10-C16	%	86			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	95			70-130	Pass	
Acenaphthylene	%	91			70-130	Pass	
Anthracene	%	96			70-130	Pass	
Benz(a)anthracene	%	85			70-130	Pass	
Benzo(a)pyrene	%	89			70-130	Pass	
Benzo(b&j)fluoranthene	%	88			70-130	Pass	
Benzo(g.h.i)perylene	%	95			70-130	Pass	
Benzo(k)fluoranthene	%	97			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chrysene	%	95			70-130	Pass	
Dibenz(a.h)anthracene	%	76			70-130	Pass	
Fluoranthene	%	94			70-130	Pass	
Fluorene	%	92			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	88			70-130	Pass	
Naphthalene	%	104			70-130	Pass	
Phenanthrene	%	95			70-130	Pass	
Pyrene	%	101			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides							
Chlordanes - Total	%	110			70-130	Pass	
4.4'-DDD	%	90			70-130	Pass	
4.4'-DDT	%	120			70-130	Pass	
a-BHC	%	70			70-130	Pass	
Aldrin	%	90			70-130	Pass	
b-BHC	%	100			70-130	Pass	
d-BHC	%	70			70-130	Pass	
Dieldrin	%	120			70-130	Pass	
Endosulfan I	%	110			70-130	Pass	
Endosulfan II	%	130			70-130	Pass	
Endosulfan sulphate	%	120			70-130	Pass	
Endrin	%	120			70-130	Pass	
Endrin aldehyde	%	130			70-130	Pass	
Endrin ketone	%	130			70-130	Pass	
g-BHC (Lindane)	%	100			70-130	Pass	
Heptachlor	%	110			70-130	Pass	
Heptachlor epoxide	%	110			70-130	Pass	
Methoxychlor	%	100			70-130	Pass	
LCS - % Recovery							
Polychlorinated Biphenyls (PCB)							
Aroclor-1260	%	130			70-130	Pass	
LCS - % Recovery							
Sulphur	%	99			70-130	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			70-130	Pass	
Cadmium	%	101			70-130	Pass	
Chromium	%	93			70-130	Pass	
Copper	%	96			70-130	Pass	
Lead	%	105			70-130	Pass	
Mercury	%	90			70-130	Pass	
Nickel	%	94			70-130	Pass	
Zinc	%	105			70-130	Pass	

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	S14-De12356	NCP	%	99			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	S14-De12356	NCP	%	106			70-130	Pass	
Toluene	S14-De12356	NCP	%	104			70-130	Pass	
Ethylbenzene	S14-De12356	NCP	%	106			70-130	Pass	
m&p-Xylenes	S14-De12356	NCP	%	111			70-130	Pass	
o-Xylene	S14-De12356	NCP	%	108			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Xylenes - Total	S14-De12356	NCP	%	110			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1					
Naphthalene	S14-De12356	NCP	%	113			70-130	Pass	
TRH C6-C10	S14-De12356	NCP	%	89			70-130	Pass	
Spike - % Recovery									
				Result 1					
Sulphur	M14-De11329	NCP	%	100			70-130	Pass	
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S14-De12356	NCP	%	107			70-130	Pass	
Cadmium	S14-De12356	NCP	%	99			70-130	Pass	
Chromium	S14-De12356	NCP	%	95			70-130	Pass	
Copper	S14-De12356	NCP	%	91			70-130	Pass	
Lead	S14-De12356	NCP	%	97			70-130	Pass	
Mercury	S14-De12356	NCP	%	82			70-130	Pass	
Nickel	S14-De12356	NCP	%	91			70-130	Pass	
Zinc	S14-De12356	NCP	%	94			70-130	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	S14-De12355	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S14-De12355	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S14-De12355	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S14-De12355	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S14-De12355	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S14-De12355	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total	S14-De12355	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 2013 NEPM Fractions				Result 1	Result 2	RPD			
Naphthalene	S14-De12355	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10	S14-De12355	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C6-C10 less BTEX (F1)	S14-De12355	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g.h.i)perylene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a.h)anthracene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1.2.3-cd)pyrene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S14-De11315	NCP	mg/L	0.16	0.16	3.0	30%	Pass	
Phenanthrene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S14-De11315	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate									
				Result 1	Result 2	RPD			
Sulphur	S14-De12489	CP	mg/L	< 1	180	2.0	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Cadmium	S14-De11723	NCP	mg/L	< 0.0005	< 0.0005	<1	30%	Pass	
Chromium	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Copper	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Lead	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Mercury	S14-De11723	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass	
Nickel	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Zinc	S14-De11723	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	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

Authorised By

Charl Du Preez	Analytical Services Manager
Ivan Taylor	Senior Analyst-Metal (NSW)
Ryan Hamilton	Senior Analyst-Organic (NSW)
Ryan Hamilton	Senior Analyst-Volatile (NSW)

Glenn Jackson

National 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

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 18217

Accredited for compliance with ISO/IEC 17025. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

JBS & G Australia (NSW & WA) P/L
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention:	Tyler Creese
Report	442273-AID
Project Name	191 MILLER ROAD CHESTER HILL 50419
Received Date	Dec 12, 2014
Date Reported	Dec 19, 2014

Methodology:

Asbestos ID	Conducted in accordance with the Australian Standard AS 4964 – 2004: Method for the Qualitative Identification of Asbestos in Bulk Samples and in-house Method LTM-ASB-8020 by polarised light microscopy (PLM) and dispersion staining (DS) techniques. Bulk samples include building materials, soils and ores.
Subsampling Soil Samples	The whole sample submitted is first dried and then sieved through a 10mm sieve followed by a 2mm sieve. All fibrous matter viz greater than 10mm, greater than 2mm as well as the material passing through the 2mm sieve are retained and analysed for the presence of asbestos. If the sub 2mm fraction is greater than approximately 30 to 60g then a sub-sampling routine based on ISO 3082:2009(E) Iron ores - Sampling and Sample preparation procedures is employed. Depending on the nature and size of the soil sample, the sub-2 mm residue material may need to be sub-sampled for trace analysis in accordance with AS 4964-2004.
Bonded asbestos-containing material (ACM)	The material is first examined and any fibres isolated and where required interfering organic fibres or matter may be removed by treating the sample for several hours at a temperature not exceeding 400 ± 30°C. The resultant material is then ground and examined in accordance with AS 4964-2004.
Limit of Reporting	The nominal detection limit of the AS4964 method is around 0.01%. The examination of large sample sizes (at least 500 ml is recommended) may improve the likelihood of identifying asbestos material in the greater than 2 mm fraction. The NEPM screening level of 0.001% w/w asbestos in soil for FA and AF (i.e. non-bonded/friable asbestos) only applies where the FA and AF are able to be quantified by gravimetric procedures. This screening level is not applicable to free fibres. NOTE: NATA News, September 2011 – page 34, states, “Weighing of fibres is problematic and can lead to loss of fibres and potential exposure for laboratory analysts. To request laboratories to report information which is outside the scope of AS 4964-2004 and the scope of their accreditation is misleading and is most unwise” therefore such values reported are outside the scope of Eurofins | mgt NATA accreditation as designated by an asterisk.

Project Name 191 MILLER ROAD CHESTER HILL 50419
Project ID
Date Sampled Dec 11, 2014
Report 442273-AID

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
TP01 0-0.15M	14-De12435	Dec 11, 2014	Approximate Sample 1586g Sample consisted of: Light green coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP01 1.0M	14-De12438	Dec 11, 2014	Approximate Sample 666g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP03 0-0.15M	14-De12439	Dec 11, 2014	Approximate Sample 933g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP04 0.3M	14-De12444	Dec 11, 2014	Approximate Sample 611g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP05 0.5M	14-De12447	Dec 11, 2014	Approximate Sample 906g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP05 2.0M	14-De12449	Dec 11, 2014	Approximate Sample 804.49g Sample consisted of: Brown coarse-grained soil and rocks	AF: Chrysotile and crocidolite asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0060g Estimated asbestos content in AF = 0.0060g Total estimated asbestos concentration in AF = 0.0007% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
TP06 0.3M	14-De12451	Dec 11, 2014	Approximate Sample 1332.2g Sample consisted of: Grey coarse-grained soil and rocks	AF: Chrysotile and crocidolite asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0216g Estimated asbestos content in AF = 0.0216g Total estimated asbestos concentration in AF = 0.0016% w/w* Organic fibre detected. No respirable fibres detected.[M11]
TP07 2.0M	14-De12456	Dec 11, 2014	Approximate Sample 89.6.51g Sample consisted of: Brown coarse-grained soil and rocks	AF: Chrysotile and crocidolite asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0036g Estimated asbestos content in AF = 0.0036g Total estimated asbestos concentration in AF = 0.0004% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP09 0-0.15M	14-De12457	Dec 11, 2014	Approximate Sample 1122.03g Sample consisted of: Light brown coarse-grained soil and rocks	AF: Chrysotile asbestos detected in fibre cement fragment. Raw weight of AF = 0.2405g Estimated asbestos content in AF = 0.0361g Total estimated asbestos concentration in AF = 0.0032% w/w* Organic fibre detected. No respirable fibres detected.[M11]
TP11 0-0.15M	14-De12458	Dec 11, 2014	Approximate Sample 937g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP11 1.0M	14-De12461	Dec 11, 2014	Approximate Sample 802g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP10 0-0.15	14-De12465	Dec 11, 2014	Approximate Sample 801g Sample consisted of: Grey coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP12 0.3	14-De12470	Dec 11, 2014	Approximate Sample 546g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
TP16 0-0.15	14-De12472	Dec 11, 2014	Approximate Sample 1074.62g Sample consisted of: Grey coarse-grained soil and rocks	ACM: Chrysotile asbestos detected in fibre cement fragment. Raw weight of ACM = 1.6721g Total estimated asbestos content in ACM = 0.2508g Total estimated asbestos concentration in ACM = 0.0233% w/w Organic fibre detected. No respirable fibres detected.[M11]
TP16 0.5	14-De12474	Dec 11, 2014	Approximate Sample 782g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP17 0-0.15	14-De12475	Dec 11, 2014	Approximate Sample 936.32g Sample consisted of: Grey coarse-grained soil and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments. Raw weight of ACM = 2.4788 g Total estimated asbestos content in ACM = 0.3718g Total estimated asbestos concentration in ACM = 0.0397% w/w FA: Chrysotile asbestos detected in weathered fibre cement fragments. Raw weight of FA = 0.0356g Estimated asbestos content in FA = 0.0320g Total estimated asbestos concentration in FA = 0.0034% w/w* Organic fibre detected. No respirable fibres detected.[M11]
TP17 1.0	14-De12478	Dec 11, 2014	Approximate Sample 627g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP18 0-0.15	14-De12479	Dec 11, 2014	Approximate Sample 917.66g Sample consisted of: Brown coarse-grained soil and rocks	AF: Chrysotile asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0008g Estimated asbestos content in AF = 0.0008g Total estimated asbestos concentration in AF = 0.0001% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
TP18 1.0	14-De12482	Dec 11, 2014	Approximate Sample 878.67g Sample consisted of: Brown coarse-grained soil and rocks	FA: Chrysotile, amosite and crocidolite asbestos detected in weathered fibre cement fragments. Raw weight of FA = 0.1738g Estimated asbestos content in FA = 0.1043g AF: Chrysotile asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0079g Estimated asbestos content in AF = 0.0079g Total estimated asbestos content in FA and AF = 0.1122g Total estimated asbestos concentration in FA and AF = 0.0128% w/w Organic fibre detected. No respirable fibres detected.[M11]
TP19 0.3	14-De12484	Dec 11, 2014	Approximate Sample 1024.57g Sample consisted of: Light brown coarse-grained soil and rocks	ACM: Chrysotile, amosite and crocidolite asbestos detected in fibre cement fragments. Raw weight of ACM = 0.5613g Total estimated asbestos content in ACM = 0.0842g Total estimated asbestos concentration in ACM = 0.0082% w/w* No asbestos detected at the reporting limit of 0.01% w/w. FA: Crocidolite asbestos detected in the form of loose fibre bundles. Raw weight of FA = 0.0041g Estimated asbestos content in FA = 0.0041g Total estimated asbestos concentration in FA = 0.0004% w/w* No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP20 0-0.15	14-De12485	Dec 11, 2014	Approximate Sample 1105.46g Sample consisted of: Grey coarse-grained soil and rocks	AF: Amosite asbestos detected in the form of loose fibre bundles. Raw weight of AF = 0.0280g Estimated asbestos content in AF = 0.0280g Total estimated asbestos concentration in AF = 0.0025% w/w* Organic fibre detected. No respirable fibres detected.[M11]
QC02	14-De12494	Dec 11, 2014	Approximate Sample 750g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

Client Sample ID	Eurofins | mgt Sample No.	Date Sampled	Sample Description	Result
QC03	14-De12495	Dec 11, 2014	Approximate Sample 655g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]
TP014 0-0.15M	14-De12781	Dec 11, 2014	Approximate Sample 794g Sample consisted of: Brown coarse-grained soil and rocks	No asbestos detected at the reporting limit of 0.001% w/w.* Organic fibre detected. No respirable fibres detected.[M11]

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).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Asbestos – LTM-ASB-8020	Sydney	Dec 15, 2014	Indefinite

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NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
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NSW 2000

Project Name: 191 MILLER ROAD CHESTER HILL 50419

Order No.:
Report #: 442273
Phone: 02 8245 0300
Fax:

Received: Dec 12, 2014 2:00 PM
Due: Dec 19, 2014
Priority: 5 Day
Contact Name: Tyler Creese

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**											
TP01 0-0.15M	Dec 11, 2014		Soil	S14-De12435	X	X								X	X
TP01 0.3M	Dec 11, 2014		Soil	S14-De12436			X								
TP01 0.5M	Dec 11, 2014		Soil	S14-De12437			X								
TP01 1.0M	Dec 11, 2014		Soil	S14-De12438	X	X			X	X	X		X		
TP03 0-0.15M	Dec 11, 2014		Soil	S14-De12439	X	X								X	X
TP03 0.3M	Dec 11, 2014		Soil	S14-De12440			X								
TP03 0.5M	Dec 11, 2014		Soil	S14-De12441			X								
TP03 1.0M	Dec 11, 2014		Soil	S14-De12442			X								
TP04 0-0.15M	Dec 11, 2014		Soil	S14-De12443			X								
TP04 0.3M	Dec 11, 2014		Soil	S14-De12444	X	X									X

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP04 0.5M	Dec 11, 2014		Soil	S14-De12445			X								
TP04 1.0M	Dec 11, 2014		Soil	S14-De12446			X								
TP05 0.5M	Dec 11, 2014		Soil	S14-De12447	X	X								X	X
TP05 1.0M	Dec 11, 2014		Soil	S14-De12448			X								
TP05 2.0M	Dec 11, 2014		Soil	S14-De12449	X	X			X	X	X		X		
TP06 0-0.15M	Dec 11, 2014		Soil	S14-De12450			X								
TP06 0.3M	Dec 11, 2014		Soil	S14-De12451	X	X									X
TP06 0.5M	Dec 11, 2014		Soil	S14-De12452			X								
TP06 1.1M	Dec 11, 2014		Soil	S14-De12453			X								
TP07 0.5M	Dec 11, 2014		Soil	S14-De12454			X								
TP07 1.0M	Dec 11, 2014		Soil	S14-De12455			X								

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Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP07 2.0M	Dec 11, 2014		Soil	S14-De12456	X	X			X	X	X		X		
TP09 0-0.15M	Dec 11, 2014		Soil	S14-De12457	X	X									X
TP11 0-0.15M	Dec 11, 2014		Soil	S14-De12458	X	X									X
TP11 0.3M	Dec 11, 2014		Soil	S14-De12459			X								
TP11 0.5M	Dec 11, 2014		Soil	S14-De12460			X								
TP11 1.0M	Dec 11, 2014		Soil	S14-De12461	X	X		X	X	X	X		X		
TP14 0.3M	Dec 11, 2014		Soil	S14-De12462			X								
TP14 0.5M	Dec 11, 2014		Soil	S14-De12463			X								
TP14 1.0M	Dec 11, 2014		Soil	S14-De12464			X								
TP10 0-0.15	Dec 11, 2014		Soil	S14-De12465	X	X								X	X
TP10 0.3	Dec 11, 2014		Soil	S14-De12466			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP10 0.5	Dec 11, 2014		Soil	S14-De12467			X								
TP10 1.0	Dec 11, 2014		Soil	S14-De12468			X								
TP12 0-0.15	Dec 11, 2014		Soil	S14-De12469			X								
TP12 0.3	Dec 11, 2014		Soil	S14-De12470	X	X								X	X
TP12 0.5	Dec 11, 2014		Soil	S14-De12471			X								
TP16 0-0.15	Dec 11, 2014		Soil	S14-De12472	X	X								X	X
TP16 0.3	Dec 11, 2014		Soil	S14-De12473			X								
TP16 0.5	Dec 11, 2014		Soil	S14-De12474	X	X			X	X	X		X		
TP17 0-0.15	Dec 11, 2014		Soil	S14-De12475	X	X									X
TP17 0.3	Dec 11, 2014		Soil	S14-De12476			X								
TP17 0.5	Dec 11, 2014		Soil	S14-De12477			X								

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Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP17 1.0	Dec 11, 2014		Soil	S14-De12478	X	X								X	X
TP18 0-0.15	Dec 11, 2014		Soil	S14-De12479	X	X								X	X
TP18 0.3	Dec 11, 2014		Soil	S14-De12480			X								
TP18 0.5	Dec 11, 2014		Soil	S14-De12481			X								
TP18 1.0	Dec 11, 2014		Soil	S14-De12482	X	X			X	X	X		X		
TP19 0-0.15	Dec 11, 2014		Soil	S14-De12483			X								
TP19 0.3	Dec 11, 2014		Soil	S14-De12484	X	X								X	X
TP20 0-0.15	Dec 11, 2014		Soil	S14-De12485	X	X								X	X
TP20 0.3	Dec 11, 2014		Soil	S14-De12486			X								
TP20 0.5	Dec 11, 2014		Soil	S14-De12487			X								
SULFUR NEAR 14	Dec 11, 2014		Soil	S14-De12488	X			X			X				

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NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
Sydney
NSW 2000

Project Name: 191 MILLER ROAD CHESTER HILL 50419

Order No.:
Report #: 442273
Phone: 02 8245 0300
Fax:

Received: Dec 12, 2014 2:00 PM
Due: Dec 19, 2014
Priority: 5 Day
Contact Name: Tyler Creese

Eurofins | mgt Client Manager: Charl Du Preez

Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
DRAIN	Dec 11, 2014		Water	S14-De12489				X							X
RINSATE	Dec 11, 2014		Water	S14-De12490											X
TRIP SPIKE	Dec 11, 2014		Water	S14-De12491								X			
TRIP BLANK	Dec 11, 2014		Water	S14-De12492								X			
QC01	Dec 11, 2014		Soil	S14-De12493			X								
QC02	Dec 11, 2014		Soil	S14-De12494	X	X									X
QC03	Dec 11, 2014		Soil	S14-De12495	X	X								X	X
QC04	Dec 11, 2014		Soil	S14-De12496			X								
TP014 0-0.15M	Dec 11, 2014		Soil	S14-De12781	X	X								X	X
TP16-1M	Dec 11, 2014		Soil	S14-De12782			X								
TP11-SULPHUR	Dec 11, 2014		Soil	S14-De12788	X			X							

eurofins | mgt

ABN – 50 005 085 521 e.mail : EnviroSales@eurofins.com.au web : www.eurofins.com.au

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3-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
Unit F3, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name: JBS & G Australia (NSW & WA) P/L
Address: Level 1, 50 Margaret St
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Sample Detail					% Moisture	Asbestos - WA guidelines	HOLD	Sulphur	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Metals M8	BTEX	Polychlorinated Biphenyls (PCB)	Volatile Organics	JBS&G Suite 2
Laboratory where analysis is conducted															
Melbourne Laboratory - NATA Site # 1254 & 14271															
Sydney Laboratory - NATA Site # 18217					X	X	X	X	X	X	X	X	X	X	X
Brisbane Laboratory - NATA Site # 20794															
External Laboratory															
TP19-SULPHUR	Dec 11, 2014		Soil	S14-De12789			X								

Eurofins | mgt Internal Quality Control Review and Glossary

General

1. QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Samples were analysed on an 'as received' basis.
4. 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 Advice.

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.

UNITS

% w/w: weight for weight basis	grams per kilogram
Filter loading:	fibres/100 graticule areas
Reported Concentration:	fibres/mL
Flowrate:	L/min

TERMS

Dry	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR	Limit of Reporting.
COC	Chain of custody
SRA	Sample Receipt Advice
ISO	International Stardards Organisation
AS	Australian Standards
WA DOH	Western Australia Department of Health
NOHSC	National Occupational Health and Safety Commission
ACM	Bonded asbestos-containing material means any material containing more than 1% asbestos and comprises asbestos-containing-material which is in sound condition, although possibly broken or fragmented, and where the asbestos is bound in a matrix such as cement or resin. Common examples of ACM include but are not limited to: pipe and boiler insulation, sprayed-on fireproofing, troweled-on acoustical plaster, floor tile and mastic, floor linoleum, transite shingles, roofing materials, wall and ceiling plaster, ceiling tiles, and gasket materials. This term is restricted to material that cannot pass a 7 mm x 7 mm sieve. This sieve size is selected because it approximates the thickness of common asbestos cement sheeting and for fragments to be smaller than this would imply a high degree of damage and hence potential for fibre release.
FA	FA comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. This type of friable asbestos is defined here as asbestos material that is in a degraded condition such that it can be broken or crumbled by hand pressure. This material is typically unbonded or was previously bonded and is now significantly degraded (crumbling).
PACM	Presumed Asbestos-Containing Material means thermal system insulation and surfacing material found in buildings, vessels, and vessel sections constructed no later than 1980 that are assumed to contain greater than one percent asbestos but have not been sampled or analyzed to verify or negate the presence of asbestos.
AF	Asbestos fines (AF) are defined as free fibres, or fibre bundles, smaller than 7mm. It is the free fibres which present the greatest risk to human health, although very small fibres (< 5 microns in length) are not considered to be such a risk. AF also includes small fragments of bonded ACM that pass through a 7 mm x 7 mm sieve. (Note that for bonded ACM fragments to pass through a 7 mm x 7 mm sieve implies a substatntial degree of damage which increases the potential for fibre release.)
AC	Asbestos cement means a mixture of cement and asbestos fibres (typically 90:10 ratios).

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	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
N/A	Not applicable
M11	NATA accreditation does not cover the performance of this service.

Authorised by:

Nibha Vaidya Senior Analyst-Asbestos (NSW)

Glenn Jackson
National 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

03501

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50419
PROJECT NAME: 191 Miller Road Chester Hill
SEND REPORT TO: T. Crase SEND INVOICE TO: Admin
DATE NEEDED BY: Standard

LABORATORY BATCH NO.:
SAMPLERS: Julio
PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100 EMAIL: tcrase@jbsg.com.au
QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	JB29	VOCs	8 metals	PAHs	OCP/PCBs	Asbestos	NOTES:
TP01 0-0.15m	Soil	11/12/14		Bag Tubs		X	X					JB29 = TRH/BTEX 8metals OCP/PCBs PAHs Asbestos
TP01 0.3m		11/12/14										
TP01 0.5m		11/12/14										
TP01 1.0m		11/12/14						X	X	X	X	
TP03 0-0.15m		11/12/14				X	X					
TP03 0.3m		11/12/14										
TP03 0.5m		11/12/14										
TP03 1.0m		11/12/14										
TP04 0-0.15m		11/12/14										
TP04 0.3m		11/12/14				X						
TP04 0.5m		11/12/14										
TP04 1.0m		11/12/14										
TP05 0.5m		11/12/14				X	X					
TP05 1.0m		11/12/14										
TP05 2.0m		11/12/14						X	X	X	X	
TP06 0-0.15m		11/12/14										
TP06 0-3m		11/12/14				X						
TP06 0.5m		11/12/14										
TP06 1.1m		11/12/14										

(1) Sulfur = soil (total) = water (SO4, SO3, S2O3, S2), total)

(2) Asbestos = WA

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: T Crase DATE: 12/12/14 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Jasmine DATE: OF: 12/12/14 2.00pm	COOLER SEAL – Yes ..... No ..... Intact ..... Broken ..... COOLER TEMP 17.5 deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: DATE: OF:	COOLER SEAL – Yes ..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 – Chain of Custody - Generic

03502

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50419
PROJECT NAME: 191 Miller Road Chester Hill
SEND REPORT TO: T Green SEND INVOICE TO: Admin
DATE NEEDED BY: Standard

LABORATORY BATCH NO.:
SAMPLERS: Julia Nicholson
PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100 EMAIL: tgreen@jbsg.com.au
QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Metals	VOCs	Sulfur	Sulfate	PAHs	OCP/PCBs	Asbestos	NOTES:
TP07 0.5m	Soil	11/12		Bag + Jar									
TP07 1.0m													
TP07 2.0m										X	X	X	X		
TP09 0-0.15m						X	X						
TP11 0-0.15m						X	X						
TP11 0.3m													
TP11 0.5m													
TP11 1.0m										X	X	X	X		
TP14 0-0.15m						X	X						
TP14 0.3m													
TP14 0.5m													
TP14 1.0m													
TP10 0-0.15						X	X						
TP10 0.3													
TP16 0.5													
TP10 1.0													
TP12 0-0.15													
TP12 0.3						X	X						
TP12 0.5													

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: T Green DATE: 12/12/14	CONSIGNMENT NOTE NO.	NAME: Jasmine	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: 12/12/14 2pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

IMSO FormsO13 – Chain of Custody - Generic

03503

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50419	LABORATORY BATCH NO.:
PROJECT NAME: Miller Rd	SAMPLERS: JN
SEND REPORT TO: T. Creese SEND INVOICE TO: Admin	PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100 EMAIL: tcreese@jbss.com.au
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	TRH/BTEX	VOCs	Sulfur	HM	Cr(VI)	PAHs	OCP/PCBs	Asbestos	NOTES:
TP16 0–0.15	Soil	11/12		Bag + Jar		X	X							
TP16 0.3														
TP16 0.5									X	X	X	X		
[illegible]														
TP17 0–0.15						X								
TP17 0.3														
TP17 0.5														
TP17 1.0						X	X							
TP18 0–0.15						X	X							
TP18 0.3														
TP18 0.5														
TP18 1.0									X	X	X	X		
TP19 0–0.15														
TP19 0.3						X	X							
TP20 0–0.15						X	X							
TP20 0.3														
TP20 0.5														
Sulfur near 14				Bag + Jar				X						
Drain	Water							X						

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: T. Creese DATE: 12/12/14	CONSIGNMENT NOTE NO.	NAME: Jasmine	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	DATE: OF: 12/12/14 2pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

03504

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 50419	LABORATORY BATCH NO.:
PROJECT NAME: Miller Rd	SAMPLERS: JW
SEND REPORT TO: T.Crozier SEND INVOICE TO: Admin	PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100 EMAIL: tcrozier@jbsg.c
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)
COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:	

SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	HSL	VOCs	BTEX	NOTES:
Rinsate	Water					X			
Tap spike	↓					X		X	
Trip blank	↓					X			
QC01	Soil			Bag + Jar					
QC02	↓			↓		X			
QC03	↓			↓		X			
QC04	↓			↓		X			
~~QC05~~									
~~QC06~~									

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: T.Crozier DATE: 12/12/14	CONSIGNMENT NOTE NO.	NAME: Jasmine DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF: JBS&G	TRANSPORT CO.	OF: 12/12/14 2pm	COOLER TEMP ..... deg C
NAME: DATE:	CONSIGNMENT NOTE NO.	NAME: DATE:	COOLER SEAL – Yes..... No ..... Intact ..... Broken .....
OF:	TRANSPORT CO	OF:	COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other

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

CERTIFICATE OF ANALYSIS 120972

Client:
JBS & G (NSW & WA) Pty Ltd
Level 1, 50 Margaret St
Sydney
NSW 2000

Attention: T Creese

Sample log in details:

Your Reference:	**50419, Miller Road**
No. of samples:	4 Soils
Date samples received / completed instructions received	15/12/2014 / 15/12/2014

Analysis Details:
Please refer to the following pages for results, methodology summary and quality control data.
Samples were analysed as received from the client. Results relate specifically to the samples as received.
Results are reported on a dry weight basis for solids and on an as received basis for other matrices.
Please refer to the last page of this report for any comments relating to the results.

Report Details:

Date results requested by: / Issue Date:	22/12/14 / 22/12/14
Date of Preliminary Report:	Not Issued

NATA accreditation number 2901. This document shall not be reproduced except in full.
Accredited for compliance with ISO/IEC 17025. **Tests not covered by NATA are denoted with *.**

Results Approved By:

Jacinta Hurst
Laboratory Manager

VOCs in soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-3 QC03/A Soil
Date extracted	-	15/12/2014
Date analysed	-	17/12/2014
Dichlorodifluoromethane	mg/kg	<1
Chloromethane	mg/kg	<1
Vinyl Chloride	mg/kg	<1
Bromomethane	mg/kg	<1
Chloroethane	mg/kg	<1
Trichlorofluoromethane	mg/kg	<1
1,1-Dichloroethene	mg/kg	<1
trans-1,2-dichloroethene	mg/kg	<1
1,1-dichloroethane	mg/kg	<1
cis-1,2-dichloroethene	mg/kg	<1
bromochloromethane	mg/kg	<1
chloroform	mg/kg	<1
2,2-dichloropropane	mg/kg	<1
1,2-dichloroethane	mg/kg	<1
1,1,1-trichloroethane	mg/kg	<1
1,1-dichloropropene	mg/kg	<1
Cyclohexane	mg/kg	<1
carbon tetrachloride	mg/kg	<1
Benzene	mg/kg	<0.2
dibromomethane	mg/kg	<1
1,2-dichloropropane	mg/kg	<1
trichloroethene	mg/kg	<1
bromodichloromethane	mg/kg	<1
trans-1,3-dichloropropene	mg/kg	<1
cis-1,3-dichloropropene	mg/kg	<1
1,1,2-trichloroethane	mg/kg	<1
Toluene	mg/kg	<0.5
1,3-dichloropropane	mg/kg	<1
dibromochloromethane	mg/kg	<1
1,2-dibromoethane	mg/kg	<1
tetrachloroethene	mg/kg	<1
1,1,1,2-tetrachloroethane	mg/kg	<1
chlorobenzene	mg/kg	<1
Ethylbenzene	mg/kg	<1
bromoform	mg/kg	<1
m+p-xylene	mg/kg	<2
styrene	mg/kg	<1
1,1,2,2-tetrachloroethane	mg/kg	<1
o-Xylene	mg/kg	<1
1,2,3-trichloropropane	mg/kg	<1
isopropylbenzene	mg/kg	<1

VOCs in soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-3 QC03/A Soil
bromobenzene	mg/kg	<1
n-propyl benzene	mg/kg	<1
2-chlorotoluene	mg/kg	<1
4-chlorotoluene	mg/kg	<1
1,3,5-trimethyl benzene	mg/kg	<1
tert-butyl benzene	mg/kg	<1
1,2,4-trimethyl benzene	mg/kg	<1
1,3-dichlorobenzene	mg/kg	<1
sec-butyl benzene	mg/kg	<1
1,4-dichlorobenzene	mg/kg	<1
4-isopropyl toluene	mg/kg	<1
1,2-dichlorobenzene	mg/kg	<1
n-butyl benzene	mg/kg	<1
1,2-dibromo-3-chloropropane	mg/kg	<1
1,2,4-trichlorobenzene	mg/kg	<1
hexachlorobutadiene	mg/kg	<1
1,2,3-trichlorobenzene	mg/kg	<1
Surrogate Dibromofluorometha	%	99
Surrogate aaa-Trifluorotoluene	%	84
Surrogate Toluene-d_8	%	97
Surrogate 4-Bromofluorobenzene	%	92

vTRH(C6-C10)/BTEXN in Soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date extracted	-	16/12/2014	15/12/2014
Date analysed	-	18/12/2014	17/12/2014
TRHC$_6$ - C$_9$	mg/kg	<25	<25
TRHC$_6$ - C$_{10}$	mg/kg	<25	<25
vTPH C$_6$ - C$_{10}$ less BTEX (F1)	mg/kg	<25	<25
Benzene	mg/kg	<0.2	<0.2
Toluene	mg/kg	<0.5	<0.5
Ethylbenzene	mg/kg	<1	<1
m+p-xylene	mg/kg	<2	<2
o-Xylene	mg/kg	<1	<1
naphthalene	mg/kg	<1	<1
Surrogate aaa-Trifluorotoluene	%	75	84

svTRH (C10-C40) in Soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date extracted	-	16/12/2014	16/12/2014
Date analysed	-	17/12/2014	17/12/2014
TRHC$_{10}$ - C$_{14}$	mg/kg	<50	<50
TRHC$_{15}$ - C$_{28}$	mg/kg	<100	<100
TRHC$_{29}$ - C$_{36}$	mg/kg	<100	<100
TRH>C$_{10}$-C$_{16}$	mg/kg	<50	<50
TRH>C$_{10}$ - C$_{16}$ less Naphthalene (F2)	mg/kg	<50	<50
TRH>C$_{16}$-C$_{34}$	mg/kg	<100	<100
TRH>C$_{34}$-C$_{40}$	mg/kg	<100	<100
Surrogate o-Terphenyl	%	81	81

PAHs in Soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date extracted	-	16/12/2014	16/12/2014
Date analysed	-	17/12/2014	17/12/2014
Naphthalene	mg/kg	<0.1	<0.1
Acenaphthylene	mg/kg	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	<0.1
Anthracene	mg/kg	<0.1	<0.1
Fluoranthene	mg/kg	0.2	<0.1
Pyrene	mg/kg	0.2	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1
Benzo(b,j+k)fluoranthene	mg/kg	0.2	<0.2
Benzo(a)pyrene	mg/kg	0.1	<0.05
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	<0.1
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	0.1	<0.1
Benzo(a)pyrene TEQ NEPM B1	mg/kg	<0.5	<0.5
Total Positive PAHs	mg/kg	1.2	NIL (+)VE
Surrogate p-Terphenyl-d14	%	104	105

Organochlorine Pesticides in soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date extracted	-	16/12/2014	16/12/2014
Date analysed	-	18/12/2014	18/12/2014
HCB	mg/kg	<0.1	<0.1
alpha-BHC	mg/kg	<0.1	<0.1
gamma-BHC	mg/kg	<0.1	<0.1
beta-BHC	mg/kg	<0.1	<0.1
Heptachlor	mg/kg	<0.1	<0.1
delta-BHC	mg/kg	<0.1	<0.1
Aldrin	mg/kg	<0.1	<0.1
Heptachlor Epoxide	mg/kg	<0.1	<0.1
gamma-Chlordane	mg/kg	<0.1	<0.1
alpha-chlordane	mg/kg	<0.1	<0.1
Endosulfan I	mg/kg	<0.1	<0.1
pp-DDE	mg/kg	<0.1	<0.1
Dieldrin	mg/kg	<0.1	<0.1
Endrin	mg/kg	<0.1	<0.1
pp-DDD	mg/kg	<0.1	<0.1
Endosulfan II	mg/kg	<0.1	<0.1
pp-DDT	mg/kg	<0.1	<0.1
Endrin Aldehyde	mg/kg	<0.1	<0.1
Endosulfan Sulphate	mg/kg	<0.1	<0.1
Methoxychlor	mg/kg	<0.1	<0.1
Surrogate TCMX	%	78	78

PCBs in Soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date extracted	-	16/12/2014	16/12/2014
Date analysed	-	18/12/2014	18/12/2014
Arochlor 1016	mg/kg	<0.1	<0.1
Arochlor 1221	mg/kg	<0.1	<0.1
Arochlor 1232	mg/kg	<0.1	<0.1
Arochlor 1242	mg/kg	<0.1	<0.1
Arochlor 1248	mg/kg	<0.1	<0.1
Arochlor 1254	mg/kg	<0.1	<0.1
Arochlor 1260	mg/kg	<0.1	<0.1
Surrogate TCLMX	%	78	78

Acid Extractable metals in soil Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date digested	-	17/12/2014	17/12/2014
Date analysed	-	17/12/2014	17/12/2014
Arsenic	mg/kg	8	<4
Cadmium	mg/kg	<0.4	<0.4
Chromium	mg/kg	23	8
Copper	mg/kg	61	6
Lead	mg/kg	89	17
Mercury	mg/kg	<0.1	<0.1
Nickel	mg/kg	14	3
Zinc	mg/kg	200	25

Moisture Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date prepared	-	16/12/2014	16/12/2014
Date analysed	-	17/12/2014	17/12/2014
Moisture	%	15	7.2

Asbestos ID - soils Our Reference: Your Reference Type of sample	UNITS ---------- ----------	120972-2 QC02/A Soil	120972-3 QC03/A Soil
Date analysed	-	19/12/2014	19/12/2014
Sample mass tested	g	Approx 90g	Approx 100g
Sample Description	-	Brown coarse-grained soil & rocks	Brown coarse-grained soil & rocks
Asbestos ID in soil	-	No asbestos detected at reporting limit of 0.1g/kg	No asbestos detected at reporting limit of 0.1g/kg
Trace Analysis	-	No asbestos detected	No asbestos detected

Method ID	Methodology Summary
Org-014	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS.
Org-016	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.
Org-003	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-012 subset	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-005	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC with dual ECD's.
Org-006	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-ECD.
Metals-020 ICP-AES	Determination of various metals by ICP-AES.
Metals-021 CV-AAS	Determination of Mercury by Cold Vapour AAS.
Inorg-008	Moisture content determined by heating at 105+/-5 deg C for a minimum of 12 hours.
ASB-001	Asbestos ID - Qualitative identification of asbestos in bulk samples using Polarised Light Microscopy and Dispersion Staining Techniques including Synthetic Mineral Fibre and Organic Fibre as per Australian Standard 4964-2004.

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Dichlorodifluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Vinyl Chloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Bromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Chloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Trichlorofluoromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-Dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trans-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	76%
cis-1,2-dichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chloroform	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	89%
2,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	98%
1,1,1-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	81%
1,1-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Cyclohexane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
carbon tetrachloride	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Benzene	mg/kg	0.2	Org-014	<0.2	[NT]	[NT]	[NR]	[NR]
dibromomethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
trichloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	83%
bromodichloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	90%
trans-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
cis-1,3-dichloropropene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2-trichloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Toluene	mg/kg	0.5	Org-014	<0.5	[NT]	[NT]	[NR]	[NR]
1,3-dichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
dibromochloromethane	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	92%
1,2-dibromoethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tetrachloroethene	mg/kg	1	Org-014	<1	[NT]	[NT]	LCS-5	94%
1,1,1,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
chlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Ethylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromoform	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
m+p-xylene	mg/kg	2	Org-014	<2	[NT]	[NT]	[NR]	[NR]
styrene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,1,2,2-tetrachloroethane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
o-Xylene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]

QUALITY CONTROL VOCs in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
isopropylbenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
bromobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-propyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
2-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-chlorotoluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3,5-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
tert-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trimethyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,3-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
sec-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,4-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
4-isopropyl toluene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
n-butyl benzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2-dibromo-3-chloropropane	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,4-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
hexachlorobutadiene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
1,2,3-trichlorobenzene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate Dibromofluorometha	%		Org-014	94	[NT]	[NT]	LCS-5	95%
Surrogate aaa-Trifluorotoluene	%		Org-014	82	[NT]	[NT]	LCS-5	81%
Surrogate Toluene-d_8	%		Org-014	102	[NT]	[NT]	LCS-5	102%
Surrogate 4-Bromofluorobenzene	%		Org-014	101	[NT]	[NT]	LCS-5	102%

QUALITY CONTROL vTRH(C6-C10)/BTEXN in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
TRHC$_6$ - C$_9$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-5	91%
TRHC$_6$ - C$_{10}$	mg/kg	25	Org-016	<25	[NT]	[NT]	LCS-5	91%
Benzene	mg/kg	0.2	Org-016	<0.2	[NT]	[NT]	LCS-5	81%
Toluene	mg/kg	0.5	Org-016	<0.5	[NT]	[NT]	LCS-5	92%
Ethylbenzene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-5	95%
m+p-xylene	mg/kg	2	Org-016	<2	[NT]	[NT]	LCS-5	94%
o-Xylene	mg/kg	1	Org-016	<1	[NT]	[NT]	LCS-5	97%
naphthalene	mg/kg	1	Org-014	<1	[NT]	[NT]	[NR]	[NR]
Surrogate aaa-Trifluorotoluene	%		Org-016	82	[NT]	[NT]	LCS-5	81%

QUALITY CONTROL svTRH (C10-C40) in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
TRHC$_{10}$ - C$_{14}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-5	106%
TRHC$_{15}$ - C$_{28}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	103%
TRHC$_{29}$ - C$_{36}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	86%
TRH>C$_{10}$-C$_{16}$	mg/kg	50	Org-003	<50	[NT]	[NT]	LCS-5	106%
TRH>C$_{16}$-C$_{34}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	103%
TRH>C$_{34}$-C$_{40}$	mg/kg	100	Org-003	<100	[NT]	[NT]	LCS-5	86%
Surrogate o-Terphenyl	%		Org-003	82	[NT]	[NT]	LCS-5	96%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Naphthalene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	80%
Acenaphthylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Acenaphthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluorene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	95%
Phenanthrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	91%
Anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Fluoranthene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	88%

QUALITY CONTROL PAHs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	105%
Benzo(a)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Chrysene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	LCS-5	86%
Benzo(b,j+k) fluoranthene	mg/kg	0.2	Org-012 subset	<0.2	[NT]	[NT]	[NR]	[NR]
Benzo(a)pyrene	mg/kg	0.05	Org-012 subset	<0.05	[NT]	[NT]	LCS-5	106%
Indeno(1,2,3-c,d)pyrene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Dibenzo(a,h)anthracene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Benzo(g,h,i)perylene	mg/kg	0.1	Org-012 subset	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate p-Terphenyl-d14	%		Org-012 subset	110	[NT]	[NT]	LCS-5	101%

QUALITY CONTROL Organochlorine Pesticides in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base II Duplicate II %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			18/12/2014	[NT]	[NT]	LCS-5	18/12/2014
HCB	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	130%
gamma-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
beta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	129%
Heptachlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	111%
delta-BHC	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Aldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	116%
Heptachlor Epoxide	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	113%
gamma-Chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
alpha-chlordane	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan I	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDE	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	124%
Dieldrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	114%
Endrin	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	120%
pp-DDD	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	134%
Endosulfan II	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
pp-DDT	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endrin Aldehyde	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Endosulfan Sulphate	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	LCS-5	117%
Methoxychlor	mg/kg	0.1	Org-005	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCMX	%		Org-005	80	[NT]	[NT]	LCS-5	80%

QUALITY CONTROL PCBs in Soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date extracted	-			16/12/2014	[NT]	[NT]	LCS-5	16/12/2014
Date analysed	-			18/12/2014	[NT]	[NT]	LCS-5	18/12/2014
Arochlor 1016	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1221	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1232	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1242	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1248	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Arochlor 1254	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	LCS-5	92%
Arochlor 1260	mg/kg	0.1	Org-006	<0.1	[NT]	[NT]	[NR]	[NR]
Surrogate TCLMX	%		Org-006	80	[NT]	[NT]	LCS-5	89%

QUALITY CONTROL Acid Extractable metals in soil	UNITS	PQL	METHOD	Blank	Duplicate Sm#	Duplicate results Base ll Duplicate ll %RPD	Spike Sm#	Spike % Recovery
Date digested	-			17/12/2014	[NT]	[NT]	LCS-7	17/12/2014
Date analysed	-			17/12/2014	[NT]	[NT]	LCS-7	17/12/2014
Arsenic	mg/kg	4	Metals-020 ICP-AES	<4	[NT]	[NT]	LCS-7	114%
Cadmium	mg/kg	0.4	Metals-020 ICP-AES	<0.4	[NT]	[NT]	LCS-7	110%
Chromium	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-7	113%
Copper	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-7	113%
Lead	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-7	107%
Mercury	mg/kg	0.1	Metals-021 CV-AAS	<0.1	[NT]	[NT]	LCS-7	97%
Nickel	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-7	111%
Zinc	mg/kg	1	Metals-020 ICP-AES	<1	[NT]	[NT]	LCS-7	108%

Report Comments:

Asbestos: Excessive sample volume was provided for asbestos analysis. A portion of the supplied sample was sub-sampled according to Envirolab procedures. We cannot guarantee that this sub-sample is indicative of the entire sample. Envirolab recommends supplying 40-50g (50mL) of sample in its own container as per AS4964-2004.

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

INS: Insufficient sample for this test
NA: Test not required
<: Less than

PQL: Practical Quantitation Limit
RPD: Relative Percent Difference
>: Greater than

NT: Not tested
NA: Test not required
LCS: Laboratory Control Sample

Quality Control Definitions

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

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

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

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

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

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.
Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.
Spikes for Physical and Aggregate Tests are not applicable.
For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: <5xPQL - any RPD is acceptable; >5xPQL - 0-50% RPD is acceptable.
Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals; 60-140% for organics and 10-140% for SVOC and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Send to Envirolab

03505

CHAIN OF CUSTODY

JBS&G

PROJECT NO.: 504/19	LABORATORY BATCH NO.:
PROJECT NAME: Miller Rd	SAMPLERS: JN
SEND REPORT TO: T.Creese SEND INVOICE TO: Admin	PHONE: SYDNEY 02 8245 0300 – PERTH 08 9488 0100 EMAIL: tcreese@jbsg.com.au
DATE NEEDED BY: Standard	QC LEVEL: NEPM (2013)

COMMENTS / SPECIAL HANDLING / STORAGE OR DISPOSAL:

	SAMPLE ID	MATRIX	DATE	TIME	TYPE & PRESERVATIVE	pH	Combo 5a	VOCs	NOTES:
1	QC01/A	Soil			Bag + Jar				
2	QC02/A	↓			↓		X		
3	QC03/A						X	X	
4	QC04/A								

ENVIROLAB

Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 120972

Date Received: 15/12/14
Time Received: ~~2:30pm~~ 14:30
Received by: CC
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

RELINQUISHED BY:	METHOD OF SHIPMENT:	RECEIVED BY:	FOR RECEIVING LAB USE ONLY:
NAME: T.Creese DATE: 12/12/14 OF: JBS&G	CONSIGNMENT NOTE NO. TRANSPORT CO.	NAME: Jasmine DATE: OF: 12/12/14 2pm	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C
NAME: DATE: OF:	CONSIGNMENT NOTE NO. TRANSPORT CO	NAME: Patricia DATE: 15/12/14 OF: ELS	COOLER SEAL – Yes..... No ..... Intact ..... Broken ..... COOLER TEMP ..... deg C

Container & Preservative Codes: P = Plastic; J = Soil Jar; B = Glass Bottle; N = Nitric Acid Prsvd.; C = Sodium Hydroxide Prsvd; VC = Hydrochloric Acid Prsvd Vial; VS = Sulfuric Acid Prsvd Vial; S = Sulfuric Acid Prsvd; Z = Zinc Prsvd; E = EDTA Prsvd; ST = Sterile Bottle; O = Other