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Engineering | Environmental | Testing

Report Type:

Stage 2 Detailed Site Investigation

Project Address:

4 Pennant Avenue, Gordon, NSW
Lot X in DP387680 and Lot Y in DP387680

Client Name:

Ku-ring-gai Council

3 July 2018
Report No: 6839-ER-1-2

We give you the right information to make the right decisions

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Rev 0	3 July 2018	Jacob Walker / Sam Scully / Craig Cowper	Craig Cowper

EXECUTIVE SUMMARY

Alliance Geotechnical Pty Ltd (AG) was engaged by Ku-ring-gai Council, to undertake a stage 2 detailed site investigation (DSI) for 4 Pennant Avenue, Gordon, NSW (refer **Figure 1** with the 'site' boundaries outlined in **Figure 2**).

AG has the following project appreciation:

- a stage 2 detailed site investigation (DSI) is required to address the findings of the stage 1 PSI undertaken by AG for the site.

The objectives of this investigation were to:

- Assess the potential nature and extent of identified contaminants of potential concern on the site, with reference to the areas of environmental concern reported in the stage 1 PSI;
- Provide advice on whether the site would be suitable (in the context of land contamination) for the proposed land use setting;
- Provide recommendations for further investigation, management and/or remediation (if warranted).

The scope of works undertaken to address the investigation objectives, included:

- A desktop review;
- Fieldwork including intrusive sampling;
- Laboratory analysis; and
- Data assessment and reporting.

Based on AG's assessment of the desktop review information, fieldwork data and laboratory analytical data, in the context of the proposed redevelopment scenario, AG makes the following conclusions:

- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present an unacceptable direct contact human health exposure risk;
- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present an unacceptable inhalation / vapour intrusion human health exposure risk;
- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present a petroleum hydrocarbon management limit risk;
- the asbestos detected in the soils assessed, are considered unlikely to present an unacceptable human health exposure risk, with the exception of soils in the vicinity of TP16, TP17 and TP08;
- the concentrations of contaminants of potential concern in the AEC06 (footprint of former building underlying existing club house), have not been assessed, due to access constrained by the presence of the existing club house building; and
- the site could be made suitable for the proposed land use setting, subject to assessment of soils in AEC06 and management/remediation of asbestos in soil in AEC06 and in the vicinity of TP08.

Based on these conclusions, AG makes the following recommendations:

- a supplementary contamination assessment should be undertaken to:
    - further characterise the extent of asbestos in soil risks in AEC04 and in the vicinity of TP08;
    - characterise the nature and extent of soil contamination in AEC06, following removal of the existing clubhouse building;
- consideration should be given to preparation of a remedial action plan (RAP), which includes a strategy for implementing the supplementary contamination assessment works recommended, and which includes a preferred remedial strategy for addressing identified asbestos in soil risks. It is noted that an addendum to the RAP may be required in the event that contamination risks are identified in AEC04, which require management and/or remediation.

This report, including its conclusions and recommendations, must be read in conjunction with the limitations presented in **Section 12**.

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1. INTRODUCTION

1.1. Background

Alliance Geotechnical Pty Ltd (AG) was engaged by Ku-ring-gai Council, to undertake a stage 2 detailed site investigation (DSI) for 4 Pennant Avenue, Gordon, NSW (refer **Figure 1** with the 'site' boundaries outlined in **Figure 2**).

AG has the following project appreciation:

- a stage 2 detailed site investigation (DSI) is required to address the findings of the stage 1 PSI undertaken by AG for the site.

1.2. Objectives

The objectives of this project were to:

- Assess the potential nature and extent of identified contaminants of potential concern on the site, with reference to the areas of environmental concern reported in the stage 1 PSI;
- Provide advice on whether the site would be suitable (in the context of land contamination) for the proposed land use setting;
- Provide recommendations for further investigation, management and/or remediation (if warranted).

1.3. Scope of Work

Alliance Geotechnical undertook the following scope of works to address the project objective:

- A desktop review;
- Fieldwork including intrusive sampling;
- Laboratory analysis; and
- Data assessment and reporting.

2. SITE IDENTIFICATION

The site is identified as Lot X in DP387680 and Lot Y in DP387680.

The approximate geographic coordinates of the middle of the site, inferred from Google Earth were 33°45'38" S and 151°09'05" E.

The locality of the site is set out in **Figure 1**.

The general layout and boundary of the site is set out in **Figure 2**.

The site covers an area of 1.3 hectares.

A copy of a detail and level survey is presented in **Appendix A**.

3. GEOLOGY, ACID SULPHATE SOILS, TOPOGRAPHY AND HYDROGEOLOGY

3.1. Geology

A review of the Sydney 1:100,000 Geological Series Sheet 9130 (Edition 1) 1983, indicated that the site is likely to be underlain by Middle Triassic, Wianamatta Group, Ashfield Shale, defined as black to dark-grey shale and laminite.

3.2. Acid Sulphate Soils

A review of the Department of Land and Water Conservation NSW Acid Sulfate Soil Risk Map for Prospect / Parramatta (1997) indicates that the site lies in an area mapped as 'No Known Occurrence' with respect to acid sulfate soils. This infers that land management activities are not likely to be affected by acid sulfate soil materials.

Further assessment of acid sulfate soils in the context of this investigation is considered by AG as not warranted.

3.3. Topography

The site topography is generally flat. AG understands that the sites are located at an elevation of approximately 100m Australian Height Datum (AHD).

3.4. Hydrogeology

Surface water courses proximal to the site included Blackbutt Creek, approximately 800m to the west, Falls Creek, approximately 660m to the south west, and Links Creek, approximately 820m to the south.

Based on distances to the nearest surface water course and the site topography, groundwater flow in the vicinity of the site is considered likely to be towards the west or south west.

4. PREVIOUS CONTAMINATION ASSESSMENTS

The following reports were considered during the undertaking of this project:

- AG 2018, 'Stage 1 Preliminary Site Investigation, 4 Pennant Avenue, Gordon, NSW' dated 23rd March 2018, ref: 6839-ER-1-1

A summary of this report is presented in Section 4.1.

4.1. Alliance Geotechnical (2018)

The objectives of the project were to:

- assess the potential for contamination to be present on the site as a result of past and current land use activities;
- provide advice on whether the site would be suitable (in the context of land contamination) for proposed child care centre land use;
- provide recommendations for further investigation, management and/or remediation (if warranted).

The scope of works undertaken to address the project objectives, included:

- a desktop review;
- a site walkover; and
- data assessment and reporting.

The site history data collected and site walkover observations made were assessed within the objectives of that project and in the context of the proposed development works. That assessment identified areas of environmental concern (AEC) and contaminants of potential concern (COPC) which may be present on site. The AEC identified are presented in attached **Figure 3** and associated COPC are presented in **Table 4.1**.

Table 4.1 Areas of Environmental Concern

ID	Area of Environmental Concern	Land Use Activity	Contaminants of Potential Concern
AEC01	South western bowling green	Uncontrolled filling, application of herbicides / pesticides	Hydrocarbons, herbicides, pesticides, polychlorinated biphenyl, metals and asbestos
AEC02	Northern bowling green	Uncontrolled filling, application of herbicides / pesticides	Hydrocarbons, herbicides, pesticides, polychlorinated biphenyl, metals and asbestos
AEC03	South eastern bowling green	Uncontrolled filling, application of herbicides / pesticides	Hydrocarbons, herbicides, pesticides, polychlorinated biphenyl, metals and asbestos

ID	Area of Environmental Concern	Land Use Activity	Contaminants of Potential Concern
AEC04	Grassed open space area, north eastern corner	Uncontrolled filling	Hydrocarbons, pesticides, polychlorinated biphenyl, metals and asbestos
AEC05	Greenkeepers shed / storage area	Historical chemical / fuel storage	Hydrocarbons, pesticides and metals
AEC06	Former/current clubhouse building	Uncontrolled demolition and additions / modifications	Metals and asbestos

Based on AG's assessment of the desktop review information, fieldwork data and laboratory analytical data, in the context of the proposed low density residential land use setting, AG made the following conclusions:

- A number of areas of environmental concern (AEC) have been identified for the site;
- These AEC may present an unacceptable exposure risk (in the context of land contamination) for future land use settings; and
- The site could be made suitable (from a land contamination perspective) for future land use settings, subject to further assessment of the identified AEC, and management / remediation of potentially unacceptable contamination risks (if warranted).

Based on those conclusions, AG made the following recommendations:

- A stage 2 detailed site investigation (DSI) should be undertaken to address the identified areas of environmental concern.
- The stage 2 DSI should be undertaken by a suitably experienced environmental consultant.

5. CONCEPTUAL SITE MODEL

5.1. Land Use Setting

AG understands that the site is proposed for a low to medium density residential land use setting.

Based on the ongoing land use scenario and guidance provided in Section 2.2 of NEPC (1999a), AG considers it reasonable to adopt the 'HIL A – residential with garden accessible soil, including childcare centres, pre-schools and primary schools' land use setting, for the purpose of assessing land contamination exposure risks.

5.2. Direct Contact – Human Health

AG notes that the proposed development scenario has not yet been defined. However, based on the proposed land use setting, it is considered reasonable to assume that soils will be accessible to residential occupants, in the form of gardens and landscaped areas. In those areas, it is considered that a direct contact exposure pathway may be present between potential contamination and onsite receptors.

5.3. Inhalation / Vapour Intrusion – Human Health

In order for a potentially unacceptable inhalation / vapour intrusion human health exposure risk to exist, a primary vapour source (e.g. underground storage tank) or secondary vapour source (e.g. significantly contaminated soil or groundwater) is required.

The historical evidence reviewed did not indicate a potential for a primary source to be present on the site.

The same historical evidence indicated a potential land use activity to be uncontrolled filling. The excavation, transport, placement and spreading of imported (uncontrolled) fill material involves significant disturbance of soils which typically results in volatilisation of vapour producing contaminants.

A groundwater source of vapours was not identified for the site.

The potential for vapours to be present in soils on site at concentrations which might present an unacceptable exposure risk, is considered to be low to negligible, however, further assessment is considered warranted, given the sensitivity of the proposed land use setting.

5.4. Aesthetics – Human Health

Section 3.6.3 of NEPC (1999a) advises that there are no specific numeric aesthetic guidelines, however site assessment requires a balanced consideration of the quantity, type and distribution of foreign material or odours in relation to the specific land use and its sensitivity.

The historical evidence indicated potential land use activities being undertaken on the site which have the potential to result in unacceptable aesthetic impacts.

AG notes that the proposed development scenario has not yet been defined. However, based on the proposed land use setting, it is considered reasonable to assume that soils will be accessible to residential occupants, in the form of gardens and landscaped areas. In those areas, it is considered

that an aesthetics exposure pathway may be present between potential contamination and onsite receptors.

5.5. Terrestrial Ecosystems – Ecological Health

Section 3.4.2 of NEPC (1999a) advises a pragmatic risk-based approach should be taken when assessing ecological risks in residential and commercial / industrial land use settings. Section 3.4.2 also advises that when commercial / industrial sites have large buildings and extensive areas covered with concrete, other pavement or hardstand materials, environmental values requiring consideration while in operational use may be limited.

AG (2018) reported that there was no visual evidence observed to suggest significant or widespread phytotoxic impact (in the form of dieback or plant stress) in vegetation at the site and that similar observations were made of visible vegetation on land adjacent to the site.

Based on the field observations reported in AG (2019), advice in NEPC (1999) and the nature and extent of the proposed development concept, the need for further ecological assessment is considered not warranted.

5.6. Management Limits for Petroleum Hydrocarbon Compounds

NEPC (1999a) notes that there are a number of policy considerations which reflect the nature and properties of petroleum hydrocarbons:

- formation of observable light non-aqueous phase liquids (LNAPL);
- fire and explosive hazards; and
- effects on buried infrastructure (e.g. penetration of or damage to, in-ground services by hydrocarbons).

NEPC (1999a) includes ‘management limits’ to avoid or minimise these potential effects. Application of the management limits requires consideration of site-specific factors such as the depth of building basements and services and depth to groundwater, to determine the maximum depth to which the limits should apply. NEPC (1999a) also notes that management limits may have less relevance at operating industrial sites which have no or limited sensitive receptors in the area of potential impact, and when management limits are exceeded, further site-specific assessment and management may enable any identified risk to be addressed.

6. DATA QUALITY OBJECTIVES

Appendix B of NEPC (1999b) provides guidance on the development of data quality objectives (DQO) using a seven-step process.

The DQO for this project are set out in **Sections 6.1** to **6.7** of this report.

6.1. Step 1: State the problem

The first step involves summarising the contamination problem that requires new environmental data and identifying resources available to solve the problem.

The objectives of this project are to:

- assess the potential nature and extent of identified contaminants of potential concern on the site, with reference to the areas of environmental concern reported in the stage 1 PSI;
- provide advice on whether the site would be suitable (in the context of land contamination) for the proposed land use setting;
- provide recommendations for further investigation, management and/or remediation (if warranted).

The project is being undertaken because:

- The site is proposed for redevelopment, comprising a low to medium density residential land use setting; and
- a stage 2 detailed site investigation (DSI) to address the findings of the stage 1 PSI undertaken by AG for the site.

The project team identified for this project is comprised primarily of suitably experienced environmental consultants from Alliance Geotechnical Pty Ltd.

The regulatory authorities identified for this project include NSW EPA and the local Council.

6.2. Step 2: Identify the decision/goal of the study

The second step involves identifying decisions that need to be made about the contamination problem and the new environmental data required to make them.

The decisions that need to be made during this project include:

- Is the environmental data collected for the project, suitable for assessing relevant land contamination exposure risks?
- Do the concentrations of identified contaminants of potential concern (COPC) present an unacceptable exposure risk to identified receptors, for the proposed land use setting?
- Is the site suitable for the proposed land use setting, in the context of land contamination?

6.3. Step 3: Identify the information inputs

The third step involves identifying the information needed to support decisions and whether new environmental data will be needed.

The inputs required to make the decisions set out in Section 6.2 for this project, will include:

- data obtained during searches of the site's history;
- the nature and extent of sampling at the site, including both density and distribution;
- samples of relevant site media;
- the measured physical and/or chemical parameters of the site media samples (including field screening and laboratory analysis, where relevant); and
- assessment criteria adopted for each of the media sampled.

Taking into consideration the objectives of this project, and the conceptual site model and land use setting presented in **Section 5.1** of this project, the assessment criteria relevant to the proposed land use setting have been adopted for this project

- Human health direct contact – HILs in Table 1A (1) in NEPC (1999a) and HSLs in Table B4 of Friebel, E & Nadebaum, P (2011);
- Human health inhalation/vapour intrusion – HSLs in Table 1 (A) in NEPC (1999a);
- Human health (asbestos) – HSLs in Table 7 of NEPC (1999a);
- Petroleum hydrocarbon compounds (management limits) – Table 1 B(7) of NEPC (1999a); and
- Aesthetics – no highly malodorous site media (e.g. strong residual petroleum hydrocarbon odours, hydrogen sulphide in site media, organosulfur compounds), no hydrocarbon sheen on surface water, no discoloured chemical deposits or soil staining with chemical waste other than of a very minor nature, no large monolithic deposits of otherwise low risk material (e.g. gypsum as powder or plasterboard, cement kiln dust), no presence of putrescible refuse including material that may generate hazardous levels of methane such as a deep-fill profile of green waste or large quantities of timber waste, and no soils containing residue from animal burial (e.g. former abattoir sites).

6.4. Step 4: Define the boundaries of the study

The fourth step involves specifying the spatial and temporal aspects of the environmental media that the data must represent to support decisions.

The spatial extent of the project will be limited to the site as defined by its boundaries.

The temporal boundaries of the project include:

- the project timeframe presented in the AG proposal for this project,
- unacceptable weather conditions at the time of undertaking fieldwork, including rainfall, cold and/or heat;
- access availability of the site (to be defined by the site owner/representative); and
- availability of AG field staff (typically normal daylight working hours, Monday to Friday).

The lateral extent that contamination is expected to be distributed across, based on the conceptual site model, is defined by the inferred boundaries of the areas of environmental concern (AEC).

The vertical extent that contamination is expected to be distributed across, based on the conceptual site model and the project scope, is likely to be limited to shallow soils and fill material.

The scale of the decisions required will be based on the entire site.

Constraints which may affect the carrying out of this project may include access limitations, presence of above and below ground infrastructure, and hazards creating health and safety risks.

6.5. Step 5: Develop the analytical approach (or decision rule)

The fifth step involves defining the parameter of interest, specifying the action level, and integrating information from Steps 1 to 4 into a single statement that gives a logical basis for choosing between alternative actions.

6.5.1. Rinsate Blanks

One rinsate blank will be collected and scheduled for analysis, for each day of sampling undertaken, if non-disposable sampling equipment was used on that day. The rinsate blank will be analysed for at least one of the analytes the sample/s collected that day are being scheduled for analysis for (with the exception of asbestos).

6.5.2. Trip Spikes and Trip Blank Samples

One trip spike and trip blank sample will be used and scheduled for analysis, for each day of sampling undertaken, if site samples being collected that day are being analysed for volatile contaminants of concern (typically BTEX and/or TRH C_6-C_{10}).

6.5.3. Field Duplicates and Field Triplicates

Field duplicate and field triplicates will be collected at a rate of one per twenty (5%) site samples collected. The duplicates and triplicates collected will be analysed for at least one of the analytes that the parent sample of the duplicate/triplicate is being scheduled for analysis for (with the exception of asbestos).

The relative percent difference (RPD) of concentrations of relevant analytes, between the parent sample and the duplicate/triplicate will be calculated.

6.5.4. Laboratory Analysis Quality Assurance / Quality Control

The analytical laboratory QA/QC program will typically include laboratory method blank samples, matrix spike samples, surrogate spike samples, laboratory control samples, and laboratory duplicate samples.

6.5.5. If/Then Decision Rules

AG has adopted the following 'if/then' decision rules for this project:

- If the result of the assessment of field data and laboratory analytical data is considered acceptable, then that field data and laboratory analytical data is suitable for interpretation within the scope of this project; and
- If the field data and laboratory analytical data is within the constraints of the assessment criteria adopted for this project (refer **Section 6.3**), then the contamination exposure risks to identified receptors, are considered acceptable.

In the event the assessment of field data and/or laboratory analytical data results in the data being not suitable for interpretation, then AG will determine if additional data is required to allow interpretation to be undertaken.

In the event that field data and/or laboratory analytical data exceeds the assessment criteria adopted for this project (refer **Section 6.3**), AG will undertake an assessment of the exceedance in the context

of the project objectives to determine if additional data is required and whether management and/or remediation is required.

6.6. Step 6: Specify the performance or acceptance criteria

The sixth step involves specifying the decision maker's acceptable limits on decision errors, which are used to establish performance goals for limiting uncertainties in the data. When assessing contaminated land, there are generally two types of errors in decision making:

- Contamination exposure risks for a specific land use setting are acceptable, when they are not; and
- Contamination exposure risks for a specific land use setting are not acceptable, when they are.

AG will mitigate the risk of decision error by:

- Calculation of the 95% upper confidence limit (UCL) statistic to assess the mean concentration of relevant contaminants of potential concern;
- Assignment of fieldwork tasks to suitably experienced AG consulting staff, and suitably experienced contractors;
- Assignment of laboratory analytical tasks to reputable NATA accredited laboratories;
- Assignment of data interpretation tasks to suitably experienced AG consulting staff, and outsourcing to technical experts where required.

AG will also adopt a range of data quality indicators (DQI) to facilitate assessment of the completeness, comparability, representativeness, precision and accuracy (bias).

Completeness			
Field Considerations	**Assessment Criterion**	**Laboratory Considerations**	**Assessment Criterion**
Critical locations sampled	Refer **Section 6.7.1**	Critical samples analysed according to DQO	Refer **Section 6.7.7**
Critical samples collected	Refer **Section 6.7.1**	Analytes analysed according to DQO	Refer **Section 6.7.7**
SOPs appropriate and complied with	100%	Appropriate laboratory analytical methods and LORs	Refer **Section 6.7.7**
Field documentation complete	All sampling point logs, calibration logs and chain of custody forms	Sample documentation complete	All sample receipt advices, all certificates of analysis
		Sample extraction and holding times complied with	Refer **Section 6.7.8**
Comparability			

Field Considerations	**Assessment Criterion**	**Laboratory Considerations**	**Assessment Criterion**
Same SOPs used on each occasion	100%	Same analytical methods used by primary laboratory	Refer **Section 6.7.8**
Climatic conditions	Samples stored in insulated containers with ice, immediately after collection	Same LORs at primary laboratory	Refer **Section 6.7.8**
Same types of samples collected, and handled/preserved in same manner	All soil samples same size, all stored in insulated containers with ice	Same laboratory for primary sample analysis	All primary samples to SGS Environmental
		Same analytical measurement units	Refer **Section 6.7.8**
Representativeness			
Field Considerations	**Assessment Criterion**	**Laboratory Considerations**	**Assessment Criterion**
Appropriate media sampled according to DQO	Refer Section 6.4	Samples analysed according to SAQP	Refer **Section 6.7.7**
Media identified in DQO sampled	Refer Section 6.4		
Precision			
Field Considerations	**Assessment Criterion**	**Laboratory Considerations**	**Assessment Criterion**

Field duplicate / triplicate RPD	Minimum 5% duplicates and triplicates No limit for analytical results <10 times LOR 50% for analytical results 10-20 times LOR 30% for analytical results >20 times LOR	Laboratory duplicates	No exceedances of laboratory acceptance criteria
SOPs appropriate and complied with	100%		
Accuracy (bias)			
Field Considerations	**Assessment Criterion**	**Laboratory Considerations**	**Assessment Criterion**
Rinsate blanks	Less than laboratory limit of reporting	Laboratory method blank	No exceedances of laboratory acceptance criteria
Field trip spikes	Recoveries between 60% and 140%	Matrix spike recovery	No exceedances of laboratory acceptance criteria
Field trip blanks	Analyte concentration <LOR	Surrogate spike recovery	No exceedances of laboratory acceptance criteria

6.7. Step 7: Develop the plan for obtaining data

The seventh step involves identifying the most resource effective sampling and analysis design for generating the data that is required to satisfy the DQOs.

6.7.1. Sampling Point Density and Locations

Table A in NSW EPA (1995) provides guidance on minimum sampling point densities required for site characterisation, based on detecting circular hot spots by using a systematic sampling pattern. This guidance assumes the investigator has little knowledge about the probable locations of the contamination, the distribution of the contamination is expected to be random (e.g. land fill sites) or the distribution of the contamination is expected to be fairly homogenous (e.g. agricultural lands).

However, Section 3.1 of NSW EPA (1995) states that a judgemental sampling pattern can be used where there is enough information on the probable locations of contamination. Further to this, Section 6.2.1 of NEPC (1999b) states that the number and location or sampling points is based on knowledge of the site and professional judgement. Sampling should be localised to known or potentially contaminated areas identified from knowledge of the site either from site history or an earlier phase of site investigation. Judgemental sampling can be used to investigate sub-surface contamination issues in site assessment.

Table 1 in WA DOH (2009) indicates that where the 'likelihood of asbestos' is assessed as "possible" or "suspect", the investigation regimen should include a sampling density that is either judgemental or the same as that set out in Table A of NSW EPA (1995) for assessing asbestos.

As this project has included gathering data which provides a reasonable understanding of site history (in the context of potential areas of environmental concern on the site) and taking into consideration Table 1 in WA DOH (2009), it is considered reasonable to adopt a judgemental sampling pattern, with up to 8 sampling points.

The locations of the sampling points are set out in **Figure 4**. The location of actual sampling points will be recorded by hand on a site plan.

6.7.2. Sampling Methodology

The sampling point methodology presented in **Table 6.7.2** will be used for this project. The methodology is based on a range of factors considered relevant to this project, including:

- the identified contaminants of potential concern;
- the suspected laydown mechanisms for those contaminants of concern;
- the suspected likely depth of contamination; and
- site specific constraints which affect the type of sampling techniques suited to the site.

Table 6.7.2 Proposed Sampling Methodology

ID	AEC	Sampling Point ID	Method	Target Depth of Sampling Point (m bgs)
AEC01	South western bowling green	TP01-TP04	Test pit	3.0m, practical refusal or 0.3m into natural material, whichever occurs first
		TP05 – TP06	Test pit	1.0m, practical refusal or 0.3m into natural material, whichever occurs first
AEC02	Northern bowling green	TP07-TP09	Test pit	3.0m, practical refusal or 0.3m into natural material, whichever occurs first
		TP10-TP11	Test pit	1.0m, practical refusal or 0.3m into natural material, whichever occurs first

ID	AEC	Sampling Point ID	Method	Target Depth of Sampling Point (m bgs)
AEC03	South eastern bowling green	TP12-TP15	Test pit	1.0m, practical refusal or 0.3m into natural material, whichever occurs first
AEC04	Grassed open space area, north eastern corner	TP16-TP18	Test pit	1.0m, practical refusal or 0.3m into natural material, whichever occurs first
AEC05	Greenkeepers shed / storage area	TP19	Test Pit	1.0m, practical refusal or 0.3m into natural material, whichever occurs first
AEC06	Former/current clubhouse building	Nil	Not applicable	Access to AEC is obstructed by existing building structures

Reference will also be made to Table 5 in WA DOH (2009) for the sampling and screening of fill soils for the presence of asbestos, where practical.

6.7.3. Identification, Storage and Handling of Samples

Sample identifiers will be used for each sample collected, based on the sampling point number and the depth/interval the sample was collected from, e.g. a sample collected from BH03 at a depth of 0.2m to 0.4m below ground level, would be identified as BH03/0.2-0.4.

Project samples will be stored in laboratory prepared glass jars (and zip lock bags if collected for asbestos or acid sulfate soil assessment).

Soil samples in glass jars (and acid sulfate soil samples) will be placed in insulated container/s with ice.

Samples will be transported to the relevant analytical laboratory, with chain of custody (COC) documentation that includes the following information:

AG project identification number

- Each sample identifier
- Date each sample was collected
- Sample type (e.g. soil or water)
- Container type/s for each sample collected
- Preservation method used for each sample (e.g. ice)
- Analytical requirements for each sample and turnaround times
- Date and time of dispatch and receipt of samples (including signatures)

6.7.4. Headspace Screening

Where the contaminants of potential concern include volatiles (e.g. TRH, BTEX), project soil samples will be subjected to field screening for ionisable volatile organic compounds (VOC), using a photo-ionisation detector (PID). The results of field screening will be recorded on sampling point log.

6.7.5. Decontamination

In the event that non-disposable sampling equipment is used, that equipment will be decontaminated before and in between sampling events, to mitigate potential for cross contamination between samples collected. The decontamination methodology to be adopted for this project will include:

- Washing relevant sampling equipment using potable water with a phosphate free detergent (i.e. Decon 90 or similar) mixed into the water;
- Rinsing the washed non-disposable sampling equipment with distilled or de-ionised water; and
- Air drying as required.

6.7.6. Laboratory Selection

The analytical laboratories used for this project will be NATA accredited for the analysis undertaken.

6.7.7. Laboratory Analytical Schedule

Project samples will be scheduled for NATA accredited laboratory analysis, using a combination of:

- Observations made in the field of the media sampled;
- Headspace screening results (where available);
- The contaminants of potential concern (COPC) identified for the area of environmental concern that the sample was collected from.

Based on site history, AG has adopted the laboratory analytical schedule (and associated upper limiting quantities) presented in **Table 6.7.7** for this project.

Table 6.7.7 Laboratory Analytical Schedule

ID	AEC	Sampling Point ID	TRH/BTEX	PAH	PCB	OCP	Phenoxy Acid Herbicides	8 Metals	Asbestos (0.001%)	Asbestos ID
AEC01	South western bowling green	TP01-TP04	4	11	1	-	-	13	12	1
		TP05 – TP06	1	2	-	1	1	2	2	-
AEC02	Northern bowling green	TP07-TP09	3	7	1	-	-	10	9	1
		TP10-TP11	1	1	-	1	1	2	2	-
AEC03	South eastern bowling green	TP12-TP15	2	4	1	1	1	5	4	1
AEC04	Grassed open space area, north eastern corner	TP16-TP18	2	3	1	1	-	4	3	1

ID	AEC	Sampling Point ID	TRH/BTEX	PAH	PCB	OCP	Phenoxy Acid Herbicides	8 Metals	Asbestos (0.001%)	Asbestos ID
AEC05	Greenkeepers shed / storage area	TP19	1	-	-	1	1	1	-	-
AEC06	Former/current clubhouse building	Nil	-	-	-	-	-	-	-	-

6.7.8. Laboratory Holding Times, Analytical Methods and Limits of Reporting

The laboratory holding times, analytical methods and limits of reporting (LOR) being used for this project, are presented in **Table 6.7.8**.

Table 6.7.8 Laboratory Holding Times, Analytical Methods and Limits of Reporting

Analyte	Holding Time	Analytical Method	Limit of Reporting (mg/kg)
BTEX and TRH C_6-C_{10}	14 days	USEPA 5030, 8260B and 8020	0.2-0.5
TRH >C_{10}-C_{40}	14 days	USEPA 8015B & C	20-100
VOC	14 days	USEPA 8260	0.1-0.5
Phenoxy Acid Herbicides	14 days	MA84 (inhouse method)	0.5
PAH	14 days	USEPA 8270	0.1-0.5
OCP	14 days	USEPA 8081	0.2
PCB	14 days	USEPA 8270	0.2
Metals	14 days	USEPA 8015B & C	0.05 – 2
Asbestos	No limit	AS4964:2004	Absence / presence
Asbestos	No limit	Inhouse Method	0.001% w/w

7. FIELDWORK

7.1. Soil Sampling

Soil sampling was undertaken by AG on 14 June 2018. An underground service locating contractor was engaged to survey each sampling point for the presence of underground services.

A total of 19 sampling points (TP01 to TP19) were established on site, using a track mounted 3.5 tonne excavator.

Image 7.1.1 View of Test Pit TP15

Samples were collected at each sampling point, and placed in laboratory supplied acid-rinsed glass jars and sealed with Teflon lined lids.

A 10L bulk soil sample was collected for every one metre of inferred fill material (or part thereof) encountered at each sampling point. Each bulk soil sample was screened for the presence of potential asbestos containing materials (ACM) greater than 7 mm in size. Potential ACM greater than 7mm was weighed and placed in separate laboratory supplied zip lock bags. Sub samples (500mL) of the bulk samples passing through 7 mm sieve were also collected and placed in separate laboratory supplied zip lock bags.

The jars and bags were labelled with the project number, sample identifier and date samples were collected on.

Each test pit was backfilled and track rolled with excavated soils at the completion of the sampling task at each sampling point. Each sampling point established was marked on a site plan. The locations of these sampling points are presented in **Figure 4**.

7.2. Site Geology

Observations were made of soils encountered during sampling work. These observations were recorded on borehole logs. A copy of these logs is presented in **Appendix B**.

Anthropogenic materials observed in some of the fill material encountered included aggregate gravels, concrete cobbles and boulders, wood, glass, plastic, terracotta tile, coal waste and brick.

Inferred natural material was encountered at each sampling point (TP01 to TP19).

Image 7.2.1 Example of stratigraphy at sampling point TP15

7.3. Headspace Screening

Samples collected were subjected to headspace screening. A sub sample from each sampling point was placed in a zip lock bag, sealed and shaken. Each bag was then pierced with the probe tip of a calibrated photo-ionisation detector (PID) and the screening results recorded. These results are recorded on the borehole logs presented in **Appendix B**.

The results of the headspace screening indicated the potential for ionisable volatile organic compounds (VOC) to be present in the samples, was generally low.

A copy of the calibration record for the PID is presented in **Appendix C**.

7.4. Odours

Olfactory evidence of odours was not detected in the soil samples collected.

7.5. Staining

Visual evidence of staining was not detected in the soil samples collected.

7.6. Potential Asbestos Containing Materials

Visual evidence of potential asbestos containing materials (ACM) was detected in the fill material at sampling points TP16 and TP17, in the form of fibrous cement fragments. A sample of each fragment was collected (TP16-Frag1 & TP17-Frag1).

Visual evidence of potential ACM was observed on the ground surface located in the garden bed, south west of sampling point TP08 in the form of a fibrous cement fragment. A sample of the fragment was collected (Frag 1).

8. LABORATORY

The samples collected were transported to the analytical laboratory, using chain of custody (COC) protocols. A selection of these samples was scheduled for analysis, with reference to the relevant COPC identified for the AEC that the samples were collected from.

A copy of the analytical laboratory certificates of analysis, is presented in **Appendix D**.

The sample analytical results were tabulated and presented in the attached **Table LAR1**.

9. DATA QUALITY INDICATOR ASSESSMENT

9.1. Completeness

An assessment of the completeness of data collected was undertaken, and the results presented in **Table 9.1**.

Table 9.1 Completeness DQI

Field Considerations	**Target**	**Actual**	**Comment**
Critical locations sampled	19	19	Target depths reached inferred natural material at each location. Performance against indicator considered acceptable.
Critical samples collected	38	47	Performance against indicator considered acceptable.
SOPs appropriate and complied with	100%	100%	Performance against indicator considered acceptable.
Field documentation complete	All sampling point logs, calibration logs and chain of custody forms	All sampling point logs, calibration logs and chain of custody forms	Performance against indicator considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Critical samples analysed according to SAQP	Refer **Section 6.7.7**	Refer Section 6.7.7	Minor deviations from **Section 6.7.7**, to suit observations made in the field during sampling, and subsequent headspace screening. Performance against indicator considered acceptable.
Analytes analysed according to SAQP	Refer **Section 6.7.7**	100%	Performance against indicator considered acceptable.
Appropriate laboratory analytical methods and LORs	Refer **Section 6.7.8**	100%	Performance against indicator considered acceptable.
Sample documentation complete	All sample receipt advices, all certificates of analysis	100%	Performance against indicator considered acceptable.

Sample extraction and holding times complied with	Refer **Section 6.7.8**	Refer comments	Performance against indicator considered acceptable.

The data collected is considered to be adequately complete within the objectives and constraints of the project, with the exception of data required to characterise soils in AEC06, where access was constrained due to the presence of a building across the AEC.

9.2. Comparability

An assessment of the comparability of data collected was undertaken, and the results presented in **Table 9.2**.

Table 9.2 Comparability DQI

Field Considerations	**Target**	**Actual**	**Comment**
Same SOPs used on each occasion	100%	100%	Performance against indicator considered acceptable.
Climatic conditions	Samples stored in insulated containers with ice, immediately after collection	100%	Performance against indicator considered acceptable.
Same types of samples collected, and handled/preserved in same manner	All soil samples same size, all stored in insulated containers with ice	100%	Performance against indicator considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Same analytical methods used by primary laboratory	Refer **Section 6.7.8**	100%	Performance against indicator considered acceptable.
Same LORs at primary laboratory	Refer **Section 6.7.8**	100%	Performance against indicator considered acceptable.
Same laboratory for primary sample analysis	All primary samples to SGS Environmental	100%	Performance against indicator considered acceptable.
Same analytical measurement units	Refer **Section 6.7.8**	100%	Performance against indicator considered acceptable.

The data collected is considered to be adequately comparable.

9.3. Representativeness

An assessment of the representativeness of data collected was undertaken, and the results presented in **Table 9.3**.

Table 9.3 Representativeness DQI

Field Considerations	**Target**	**Actual**	**Comment**
Appropriate media sampled according to SAQP	Refer **Section 6.7.2**	100%	Performance against indicator considered acceptable.
Media identified in SAQP sampled	Refer **Section 6.7.2**	100%	Performance against indicator considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Samples analysed according to SAQP	Refer **Section 6.7.7**	Refer comments	Minor deviations from **Section 6.7.7**, to suit observations made in the field during sampling, and subsequent headspace screening. Performance against indicator considered acceptable.

The data collected is considered to be adequately complete within the objectives and constraints of the project.

9.4. Precision

An assessment of the precision of data collected was undertaken, and the results presented in **Table 9.4**.

Table 9.4 Precision DQI

Field Considerations	**Target**	**Actual**	**Comment**

Field duplicate / triplicate RPD	Minimum 5% duplicates and triplicates	5.3 % duplicates and 5.3 % triplicates	Parent duplicate/triplicate relationships are as follows: DUP01/1A – TP03-0.0-0.2 DUP02/2A – TP01-0.0-0.2
	No limit for analytical results <10 times LOR	Nil	Exceedances included: • Arsenic for DUP-2A • Cadmium for DUP-02 • Lead for DUP-2A • Zinc for DUP-1A, DUP-02 and DUP-2A • Mercury for DUP-01 and DUP-2A AG considers these exceedances are likely to be attributable to heterogeneity in each of the discrete soils samples, as the parent sample could not be homogenised prior to splitting, due to the potential for volatile and semi volatile contaminants to be present. As a conservative measure, the sample reporting the higher concentration of the relevant analyte should be used when making decisions regarding contamination risks on the site. Performance against indicator considered acceptable.
	50% for analytical results 10-20 times LOR	Nil	
	30% for analytical results >20 times LOR	8	
SOPs appropriate and complied with	100%	100%	Performance against indicator considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Laboratory duplicates	No exceedances of laboratory acceptance criteria	Three exceedances	Three laboratory exceedances were reported to have failed the laboratory duplicates acceptance criteria due to sample heterogeneity. Performance against indicator considered acceptable.

The data collected is considered to be adequately precise.

9.5. Accuracy

An assessment of the precision of data collected was undertaken, and the results presented in **Table 9.5**.

Table 9.5 Accuracy DQI

Field Considerations	**Target**	**Actual**	**Comment**
Rinsate blanks	Less than laboratory limit of reporting	Not applicable	Disposable sampling equipment used
Field trip spikes	Recoveries between 60% and 140%	Recoveries were between 60% and 140%	Performance against indicator considered acceptable.
Field trip blanks	Analyte concentration <LOR	Analyte concentrations were < LOR	Performance against indicator considered acceptable.
Laboratory Considerations	**Target**	**Actual**	**Comment**
Laboratory method blank	No exceedances of laboratory acceptance criteria	No exceedances of laboratory acceptance criteria	Performance against indicator considered acceptable.
Matrix spike recovery	No exceedances of laboratory acceptance criteria	Two exceedances	One exceedances were reported to have failed the matrix spike recovery acceptance criteria due to matrix interference. Performance against indicator considered acceptable.
Surrogate spike recovery	No exceedances of laboratory acceptance criteria	No exceedances of laboratory acceptance criteria	Performance against indicator considered acceptable.
Laboratory control sample recovery	No exceedances of laboratory acceptance criteria	No exceedances of laboratory acceptance criteria	Performance against indicator considered acceptable.

The data collected is considered to be adequately accurate.

10. DISCUSSION

A discussion on comparison of laboratory analytical results and field observations, in the context of the assessment criteria adopted for this project, is presented in **Sections 10.1** to **10.5**.

10.1. Human Health - Direct Contact

10.1.1. TRH

The concentrations of TRH C_6-C_{10}, >C_{10}-C_{16}, >C_{16}-C_{34} and >C_{34}-C_{40} detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

10.1.2. BTEX

The concentrations of benzene, toluene, ethyl benzene and xylenes detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

10.1.3. PAH

The concentrations of naphthalene detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

The concentrations of benzo(a)pyrene TEQ detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

The concentration of total PAH detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

10.1.4. OCP

The concentration of relevant OCP compounds detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria or less than laboratory limits of reporting.

10.1.5. Phenoxy Acid Herbicides

The concentration of phenoxy acid herbicide compounds detected in the soil samples analysed, were less than the laboratory limits of reporting.

10.1.6. PCB

The concentration of relevant PCB compounds detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

10.1.7. Metals

The concentrations of arsenic, cadmium, chromium, copper, lead, nickel, zinc and mercury detected in the soil samples analysed, were less than the applicable adopted direct contact human health exposure criteria.

10.2. Asbestos

10.2.1. Bonded Asbestos Containing Materials

Fragments of material suspected of containing asbestos, and greater than 7mm in size, were encountered during screening of bulk soil samples collected from TP16 and TP17 (both in AEC04). A total of 2 fragments were submitted for laboratory analysis for the presence of asbestos. Asbestos was identified in each of the samples analysed.

The gravimetric approach set out in Section 4.10 of NEPC (1999a) was used to bonded asbestos containing materials in soil concentrations, including the assumed 15% asbestos by weight in cement bonded asbestos, and an assumed soil density of 1.65kg/L. These assumed values are considered to be adequately conservative within the context of this project. The sample size was 10L, based on guidance in Section 4.10 of NEPC (1999a).

The estimation formula in Section 4.10 of NEPC (1999a) is:

$$\%\ w/w\ asbestos\ in\ soil = \frac{\%\ asbestos\ content \times bonded\ ACM\ (kg)}{soil\ volume\ (L) \times soil\ density\ (kg/L)}$$

The results of the calculations performed using this formula, are presented in **Table** 10.2

Table 10.2.1 Results of Gravimetric Estimation of Asbestos Concentrations in Soil

Sample ID	Weight of Bonded ACM (kg)	% w/w Asbestos in Soil
TP016-0.0-0.8	0.052	0.06
TP017-0.0-0.2	0.0124	0.011

The estimated concentrations of bonded asbestos in soil were not less than the adopted health screening level of 0.01% w/w, in each of the samples reported on.

10.2.2. Asbestos Fines and Friable Asbestos

The concentration of friable asbestos and asbestos fines (FA and AF) detected in the relevant soil samples analysed were less than the applicable adopted health screening level.

10.2.3. Asbestos (General)

Asbestos was detected in fragment of fibrous cement sheeting located on the surface of the site, south west of sampling point TP08. The presence of asbestos containing materials on the surface of the site, may present an unacceptable human health exposure risk.

10.3. Human Health – Inhalation / Vapour Intrusion (Residential)

10.3.1. TRH

The concentrations of TRH C_6-C_{10} (minus BTEX) and >C_{10}-C_{16} (minus naphthalene) detected in the soil samples analysed, were less than the applicable adopted inhalation / vapour intrusion human health exposure criteria.

10.3.2. BTEX

The concentrations of benzene, toluene, ethyl benzene and xylenes detected in the soil samples analysed, were less than the applicable adopted inhalation / vapour intrusion human health exposure criteria.

10.3.3. PAH

The concentrations of naphthalene detected in the soil samples analysed, were less than the applicable adopted inhalation / vapour intrusion human health exposure criteria.

10.4. TPH Management Limits (Residential)

The concentrations of TRH C_6-C_{10}, >C_{10}-C_{16}, >C_{16}-C_{34} and >C_{34}-C_{40} detected in the soil samples analysed, were less than the applicable adopted TRH management limits or less than laboratory limits of reporting.

10.5. Aesthetics

There were no observations made of odours, significant chemical deposits/wastes, large monolithic deposits of low risk material, putrescible waste or hydrocarbon sheen in the soils.

11. CONCLUSIONS AND RECOMMENDATIONS

Based on AG's assessment of the desktop review information, fieldwork data and laboratory analytical data, in the context of the proposed redevelopment scenario, AG makes the following conclusions:

- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present an unacceptable direct contact human health exposure risk;
- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present an unacceptable inhalation / vapour intrusion human health exposure risk;
- the detected concentrations of identified contaminants of potential concern in the soils assessed are considered unlikely to present a petroleum hydrocarbon management limit risk;
- the asbestos detected in the soils assessed, are considered unlikely to present an unacceptable human health exposure risk, with the exception of soils in the vicinity of TP16, TP17 and TP08;
- the concentrations of contaminants of potential concern in the AEC06 (footprint of former building underlying existing club house), have not been assessed, due to access constrained by the presence of the existing club house building; and
- the site could be made suitable for the proposed land use setting, subject to assessment of soils in AEC06 and management/remediation of asbestos in soil in AEC06 and in the vicinity of TP08.

Based on these conclusions, AG makes the following recommendations:

- a supplementary contamination assessment should be undertaken to:
    - further characterise the extent of asbestos in soil risks in AEC04 and in the vicinity of TP08;
    - characterise the nature and extent of soil contamination in AEC06, following removal of the existing clubhouse building;
- consideration should be given to preparation of a remedial action plan (RAP), which includes a strategy for implementing the supplementary contamination assessment works recommended, and which includes a preferred remedial strategy for addressing identified asbestos in soil risks. It is noted that an addendum to the RAP may be required in the event that contamination risks are identified in AEC04, which require management and/or remediation.

This report, including its conclusions and recommendations, must be read in conjunction with the limitations presented in **Section 12**.

12. STATEMENT OF LIMITATIONS

The findings presented in this report are based on specific searches of relevant, government historical databases and anecdotal information that were made available during the course of this investigation. To the best of our knowledge, these observations represent a reasonable interpretation of the general condition of the site at the time of report completion.

This report has been prepared solely for the use of the client to whom it is addressed and no other party is entitled to rely on its findings.

No warranties are made as to the information provided in this report. All conclusions and recommendations made in this report are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Alliance Geotechnical Pty Ltd. Should information become available regarding conditions at the site including previously unknown sources of contamination, AG reserves the right to review the report in the context of the additional information.

This report must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to AG's engagement. The report must not be used for any purpose other than the purpose specified at the time AG was engaged to prepare the report.

Logs, figures, and drawings are generated for this report based on individual AG consultant interpretations of nominated data, as well as observations made at the time site walkover/s were completed.

Data and/or information presented in this report must not be redrawn for its inclusion in other reports, plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this report be encountered or site conditions change, AG reserves the right to review and amend this report.

13. REFERENCES

AG 2018, 'Stage 1 Preliminary Site Investigation, 4 Pennant Avenue, Gordon, NSW' dated 23rd March 2018, ref: 6839-ER-1-1

National Environment Protection Council (NEPC) 1999a, 'Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater, National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013'.

National Environment Protection Council (NEPC) 1999b, 'Schedule B(2) Guideline on Site Characterisation, National Environment Protection (Assessment of Site Contamination) Measure (NEPM) as amended in May 2013'.

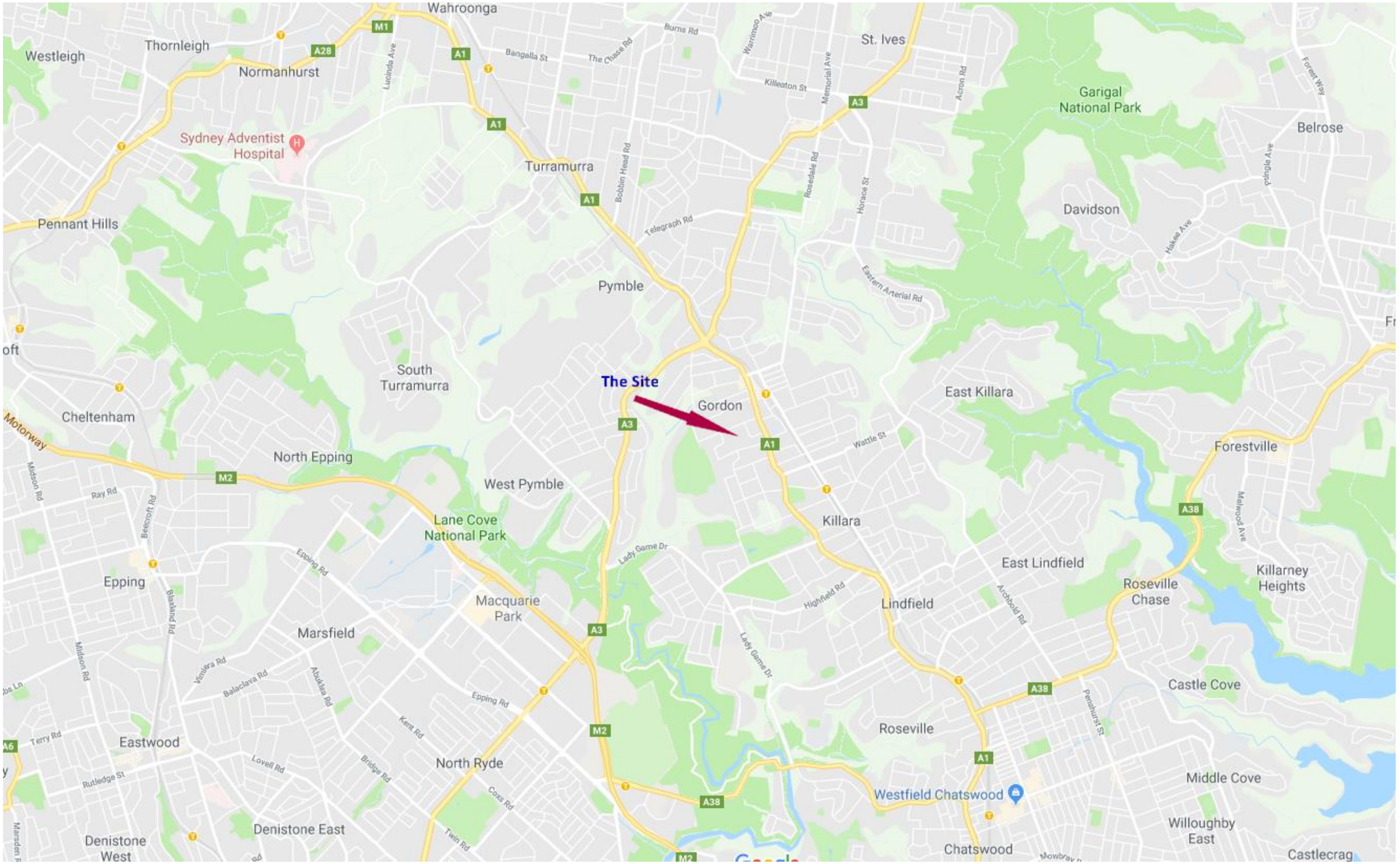
NSW EPA 2017, 'Contaminated Sites: Guidelines for the NSW Site Auditor Scheme (3rd edition)'.

NSW EPA 1995, 'Contaminated Sites: Sampling Design Guidelines'.

NSW OEH 2011, 'Contaminated Sites: Guidelines for Consultants Reporting on Contaminated Sites'.

WA DOH 2009, 'Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia' dated May 2009.

FIGURES



Alliance Geotechnical ENGINEERING | ENVIRONMENTAL | TESTING Manage the earth, eliminate the risk	**Site Locality**			
	Client Name:	Ku-ring-gai Council	Figure Number:	1
	Project Name:	Stage 2 Detailed Site Investigation	Figure Date:	20 June 2018
	Project Location:	4 Pennant Avenue, Gordon NSW	Report Number:	6839-ER-1-2

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Site Layout

Client Name:	Ku-ring-gai Council	Figure Number:	2
Project Name:	Stage 2 Detailed Site Investigation	Figure Date:	20 June 2018
Project Location:	4 Pennant Avenue, Gordon NSW	Report Number:	6839-ER-1-2

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Areas of Environmental Concern

Client Name:	Ku-ring-gai Council	Figure Number:	3
Project Name:	Stage 2 Detailed Site Investigation	Figure Date:	20 June 2018
Project Location:	4 Pennant Avenue, Gordon NSW	Report Number:	6839-ER-1-2

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Sampling Point Layout Plan

Client Name:	Ku-ring-gai Council	Figure Number:	4
Project Name:	Stage 2 Detailed Site Investigation	Figure Date:	20 June 2018
Project Location:	4 Pennant Avenue, Gordon NSW	Report Number:	6839-ER-1-2

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TABLES

Table LAR1
4 Pennant Avenue, Gordon NSW
Soil Results & Adopted Site Criteria
6839-ER-1-2

									Reference		SE180434.001	SE180434.046	SE180434.002	SE180434.003	SE180434.047	SE180434.004	SE180434.005	SE180434.048	SE180434.006	SE180434.007	SE180434.049	SE180434.008	SE180434.009	SE180434.050	SE180434.010	SE180434.011	SE180434.051	SE180434.012	SE180434.013	SE180434.052	SE180434.014	SE180434.053	SE180434.015	SE180434.016	SE180434.017	SE180434.018	SE180434.054	SE180434.019	SE180434.020	SE180434.055	SE180434.021	SE180434.022	SE180434.056	SE180434.023
									Sample ID		TP01-0.0-0.2	TP01-0.0-0.25	TP01-0.25-0.4	TP02-0.0-0.2	TP02-0.0-0.25	TP02-0.25-0.4	TP03-0.0-0.2	TP03-0.0-0.65	TP03-0.65-0.8	TP04-0.0-0.2	TP04-0.0-0.6	TP04-0.6-0.8	TP05-0.0-0.2	TP05-0.0-0.65	TP05-0.65-0.8	TP06-0.0-0.2	TP06-0.0-0.6	TP06-0.6-0.8	TP07-0.0-0.2	TP07-0.0-0.7	TP07-0.7-0.9	TP08-0.0-1.0	TP08-0.0-0.2	TP08-0.8-1.0	TP08-1.0-1.2	TP09-0.0-0.2	TP09-0.0-0.6	TP09-0.6-0.8	TP10-0.0-0.2	TP10-0.0-0.7	TP10-0.5-0.7	TP11-0.0-0.2	TP11-0.0-0.7	TP11-0.5-0.7
									Date Sampled		14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018
									Sample Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Group	Analyte	Units	PQL	Asbestos Health Screening Level (w/w) - NEPC 2013	Screening Levels for Direct Contact (mg/kg) - CRC Care 2011	Inhalation / Vapour Intrusion HSLs (mg/kg) - NEPC	Management Limits for TPH Fractions F1 - F4 in soil (mg/Kg) - NEPC 2013	Health Investigation Levels for Soil Contaminants - NEPC 2013																																					
				Residential A	HSL - A Residential (Low Density)	HSL A & HSL B - Low - High density 0 m to <1 m	Residential, Parkland and Public Open Space Fine Soil Texture	Residential A	Data Set Minimum	Data Set Maximum																																				
Metals	Arsenic, As	mg/kg	3	-	-	-	-	100	2	51	31	-	3	51	-	9	4	-	5	4	-	2	4	-	5	3	-	-	5	-	3	-	4	3	4	16	-	4	2	-	2	2	-	2
	Cadmium, Cd	mg/kg	0.3	-	-	-	-	20	<0.3	3.1	2.4	-	<0.3	3.1	-	<0.3	0.6	-	<0.3	0.8	-	<0.3	0.4	-	<0.3	0.7	-	-	<0.3	-	<0.3	-	<0.3	<0.3	<0.3	0.7	-	<0.3	<0.3	-	0.4	<0.3	-	0.7
	Chromium, Cr	mg/kg	0.3	-	-	-	-	100	4.3	26	10	-	7.8	11	-	8.8	13	-	12	26	-	4.3	9.3	-	18	9.4	-	-	9.4	-	7.1	-	11	12	16	6.1	-	18	7.9	-	8.4	4.8	-	12
	Copper, Cu	mg/kg	0.5	-	-	-	-	6,000	3.2	45	11	-	6.2	11	-	5.3	5.6	-	4.2	4.9	-	4	4.6	-	3.8	5.6	-	-	8.7	-	3.2	-	45	4.3	4.6	8	-	4.2	6.8	-	6.8	5.5	-	5.3
	Lead, Pb	mg/kg	1	-	-	-	-	300	5	380	140	-	15	180	-	13	7	-	15	5	-	10	6	-	15	7	-	-	38	-	10	-	51	20	42	60	-	13	8	-	7	7	-	8
	Nickel, Ni	mg/kg	0.5	-	-	-	-	400	<0.5	6.4	3.5	-	0.7	3.6	-	<0.5	2.3	-	<0.5	0.9	-	<0.5	2	-	<0.5	3.2	-	-	1.2	-	<0.5	-	1.7	1.5	0.7	3.1	-	0.7	2.5	-	3.4	2	-	2.8
	Zinc, Zn	mg/kg	0.5	-	-	-	-	7,400	<2	380	46	-	8.6	39	-	7.1	11	-	4.6	5.5	-	<2	8.8	-	4.3	11	-	-	21	-	3.1	-	22	14	6.2	20	-	5.6	13	-	18	10	-	22
	Mercury (inorganic)	mg/kg	0.05	-	-	-	-	40	<0.05	10	6.3	-	<0.05	10	-	<0.05	2.6	-	<0.05	4.6	-	<0.05	2.7	-	<0.05	2.1	-	-	0.09	-	<0.05	-	0.06	<0.05	<0.05	3.2	-	<0.05	1.3	-	1.2	0.83	-	0.81
PAHS	Naphthalene	mg/kg	0.1	-	-	5	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	2-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	1-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Acenaphthylene	mg/kg	0.1	-	-	-	-	-	<0.1	0.2	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Acenaphthene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Fluorene	mg/kg	0.1	-	-	-	-	-	<0.1	0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Phenanthrene	mg/kg	0.1	-	-	-	-	-	<0.1	2.4	0.2	-	-	0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	0.3	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	4.2	0.3	-	-	0.3	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	0.1	-	<0.1	-	-	<0.1	<0.1	0.3	-	-	<0.1	-	-	-	-	<0.1
	Pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	3.7	0.3	-	-	0.3	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	0.1	-	<0.1	-	-	<0.1	<0.1	0.3	-	-	<0.1	-	-	-	-	<0.1
	Benzo(a)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	1.2	0.2	-	-	0.2	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.2	-	-	<0.1	-	-	-	-	<0.1
	Chrysene	mg/kg	0.1	-	-	-	-	-	<0.1	1.2	0.2	-	-	0.2	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.2	-	-	<0.1	-	-	-	-	<0.1
	Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	1.8	0.3	-	-	0.3	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.2	-	-	<0.1	-	-	-	-	<0.1
	Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	0.6	0.1	-	-	0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.1	-	-	<0.1	-	-	-	-	<0.1
	Benzo(a)pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	1.8	0.2	-	-	0.3	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.2	-	-	<0.1	-	-	-	-	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	1.4	0.2	-	-	0.2	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.1	-	-	<0.1	-	-	-	-	<0.1
	Dibenzo(ah)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	-	-	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-	-	<0.1	1.4	0.1	-	-	0.1	-	<0.1	<0.1	-	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	<0.1	<0.1	-	<0.1	-	-	<0.1	<0.1	0.1	-	-	<0.1	-	-	-	-	<0.1
	Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-	-	-	<0.2	2.3	0.3	-	-	0.3	-	<0.2	<0.2	-	<0.2	<0.2	-	-	<0.2	-	-	<0.2	-	<0.2	<0.2	-	<0.2	-	-	<0.2	<0.2	0.3	-	-	<0.2	-	-	-	-	<0.2
	Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	-	3	<0.3	2.4	0.4	-	-	0.4	-	<0.3	<0.3	-	<0.3	<0.3	-	-	<0.3	-	-	<0.3	-	<0.3	<0.3	-	<0.3	-	-	<0.3	<0.3	0.4	-	-	<0.3	-	-	-	-	<0.3
	Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	-	-	<0.2	2.4	0.4	-	-	0.4	-	<0.2	<0.2	-	<0.2	<0.2	-	-	<0.2	-	-	<0.2	-	<0.2	<0.2	-	<0.2	-	-	<0.2	<0.2	0.3	-	-	<0.2	-	-	-	-	<0.2
	Total PAH (18)	mg/kg	0.8	-	-	-	-	-	<0.8	20	2.1	-	-	1.9	-	<0.8	<0.8	-	<0.8	<0.8	-	-	<0.8	-	-	<0.8	-	<0.8	<0.8	-	<0.8	-	-	<0.8	<0.8	1.7	-	-	<0.8	-	-	-	-	<0.8
	Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-	-	300	<0.8	20	2.1	-	-	1.9	-	<0.8	<0.8	-	<0.8	<0.8	-	-	<0.8	-	-	<0.8	-	<0.8	<0.8	-	<0.8	-	-	<0.8	<0.8	1.7	-	-	<0.8	-	-	-	-	<0.8
TRH	TRH C6-C9	mg/kg	20	-	-	-	-	-	<20	<20	<20	-	-	<20	-	-	<20	-	-	<20	-	-	-	-	-	-	-	-	<20	-	-	-	<20	-	-	<20	-	-	-	-	-	-	-	<20
	Benzene (F0)	mg/kg	0.1	-	100	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
	TRH C6-C10	mg/kg	25	-	4,400	-	800	-	<25	<25	<25	-	-	<25	-	-	<25	-	-	<25	-	-	-	-	-	-	-	-	<25	-	-	-	<25	-	-	<25	-	-	-	-	-	-	-	<25
	TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	50	-	-	<25	<25	<25	-	-	<25	-	-	<25	-	-	<25	-	-	-	-	-	-	-	-	<25	-	-	-	<25	-	-	<25	-	-	-	-	-	-	-	<25
	TRH C10-C14	mg/kg	20	-	-	-	-	-	<20	<20	<20	-	-	<20	-	-	<20	-	-	<20	-	-	-	-	-	-	-	-	<20	-	-	-	<20	-	-	<20	-	-	-	-	-	-	-	<20
	TRH C15-C28	mg/kg	45	-	-	-	-	-	<45	<45	<45	-	-	<45	-	-	<45	-	-	<45	-	-	-	-	-	-	-	-	<45	-	-	-	<45	-	-	<45	-	-	-	-	-	-	-	<45
	TRH C29-C36	mg/kg	45	-	-	-	-	-	<45	<45	<45	-	-	<45	-	-	<45	-	-	<45	-	-	-	-	-	-	-	-	<45	-	-	-	<45	-	-	<45	-	-	-	-	-	-	-	<45
	TRH C37-C40	mg/kg	100	-	-	-	-	-	<100	<100	<100	-	-	<100	-	-	<100	-	-	<100	-	-	-	-	-	-	-	-	<100	-	-	-	<100	-	-	<100	-	-	-	-	-	-	-	<100
	TRH >C10-C16 (F2)	mg/kg	25	-	3,300	280	1,000	-	<25	<25	<25	-	-	<25	-	-	<25	-	-	<25	-	-	-	-	-	-	-	-	<25	-	-	-	<25	-	-	<25	-	-	-	-	-	-	-	<25
	TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	-	-	-	-	-	<25	<25	<25	-	-	<25	-	-	<25	-	-	<25	-	-	-	-	-	-	-	-	<25	-	-	-	<25	-	-	<25	-	-	-	-	-	-	-	<25
	TRH >C16-C34 (F3)	mg/kg	90	-	4,500	-	3,500	-	<90	<90	<90	-	-	<90	-	-	<90	-	-	<90	-	-	-	-	-	-	-	-	<90	-	-	-	<90	-	-	<90	-	-	-	-	-	-	-	<90
	TRH >C34-C40 (F4)	mg/kg	120	-	6,300	-	10,000	-	<120	<120	<120	-	-	<120	-	-	<120	-	-	<120	-	-	-	-	-	-	-	-	<120	-	-	-	<120	-	-	<120	-	-	-	-	-	-	-	<120
	TRH C10-C36 Total	mg/kg	110	-	-	-	-	-	<110	<110	<110	-	-	<110	-	-	<110	-	-	<110	-	-	-	-	-	-	-	-	<110	-	-	-	<110	-	-	<110	-	-	-	-	-	-	-	<110
	TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-	-	<210	<210	<210	-	-	<210	-	-	<210	-	-	<210	-	-	-	-	-	-	-	-	<210	-	-	-	<210	-	-	<210	-	-	-	-	-	-	-	<210
VOCs	Benzene	mg/kg	0.1	-	100	0.7	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
	Toluene	mg/kg	0.1	-	14,000	480	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
	Ethylbenzene	mg/kg	0.1	-	4,500	NL	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
	m/p-xylene	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	<0.2	-	-	<0.2	-	-	<0.2	-	-	<0.2	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	<0.2	-	-	-	-	-	-	-	<0.2
	o-xylene	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
	Total Xylenes	mg/kg	0.3	-	12,000	110	-	-	<0.3	<0.3	<0.3	-	-	<0.3	-	-	<0.3	-	-	<0.3	-	-	-	-	-	-	-	-	<0.3	-	-	-	<0.3	-	-	<0.3	-	-	-	-	-	-	-	<0.3
	Total BTEX	mg/kg	0.6	-	-	-	-	-	<0.6	<0.6	<0.6	-	-	<0.6	-	-	<0.6	-	-	<0.6	-	-	-	-	-	-	-	-	<0.6	-	-	-	<0.6	-	-	<0.6	-	-	-	-	-	-	-	<0.6
	Naphthalene	mg/kg	0.1	-	1,400	5	-	-	<0.1	<0.1	<0.1	-	-	<0.1	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-	-	-	-	<0.1
OCP	Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-	10	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Alpha BHC	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Lindane	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Heptachlor	mg/kg	0.1	-	-	-	-	6	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Aldrin	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Beta BHC	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Delta BHC	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-	<0.1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
	o,p'-DDE	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Alpha Endosulfan	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
	Gamma Chlordane	mg/kg	0.1	-	-	-	-	-	<0.1	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4
	Alpha Chlordane	mg/kg	0.1	-	-	-	-	-	<0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
	trans-Nonachlor	mg/kg	0.1	-	-	-	-	-	<0.1	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
	p,p'-DDE	mg/kg	0.1	-	-	-	-	-	<0.1	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Dieldrin	mg/kg	0.2	-	-	-	-	-	<0.2	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
	Endrin	mg/kg	0.2	-	-	-	-	10	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
	o,p'-DDD	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	o,p'-DDT	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Beta Endosulfan	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2
	p,p'-DDD	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	p,p'-DDT	mg/kg	0.1	-	-	-	-	-	<0.1	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Endosulfan sulphate	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Methoxychlor	mg/kg	0.1	-	-	-	-	300	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Endrin Ketone	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Isodrin	mg/kg	0.1	-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Mirex	mg/kg	0.1	-	-	-	-	10	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
	Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-	<1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	DDT + DDE + DDD	mg/kg	0.1	-	-	-	-	240	0	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	Alpha + Beta Endosulfan	mg/kg	0.1	-	-	-	-	270	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
	Aldrin + Dieldrin	mg/kg	0.1	-	-	-	-	6	0	0.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.7
	Alpha + Gamma Chlordane	mg/kg	0.1	-	-	-	-	50	0	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
Phenoxy Acid Herbicides	Acifluorfen	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Bentazon	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Chloramben	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	24-D	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	24-DB	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Dicamba	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	3,5-Dichlorobenzoic acid	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Dichloroprop	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Dinoseb	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	MCPA	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	MCPP	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	4-Nitrophenol	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Pentachlorophenol	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	Picloram	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	245-T	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
	245-TP	mg/kg	0.5	-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
PCBs	Arochlor 1016	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1262	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1268	mg/kg	0.2	-	-	-	-	-	<0.2	<0.2	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-
	Total PCBs (Arochlors)	mg/kg	1	-	-	-	-	1	<1	<1	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-
Asbestos	Total Sample Weight	g	1	-	-	-	-	-			-	890	-	-	954	-	-	1022	-	-	1173	-	-	1181	-	-	1281	-	-	994	-	823	-	-	-	-	1006	-	-	1127	-	-	1043	-
	ACM in >7mm Sample	g	0.01	-	-	-	-	-	<0.01	<0.01	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	<0.01	-	-	-	-	<0.01	-	-	<0.01	-	-	<0.01	-
	AF/FA in >2mm to <7mm Sample	g	0	-	-	-	-	-	<0.0001	<0.0001	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	<0.0001	-	-	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-
	AF/FA in <2mm Sample	g	0.00	-	-	-	-	-	<0.0001	<0.0001	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-	<0.0001	-	-	-	-	<0.0001	-	-	<0.0001	-	-	<0.0001	-
	Asbestos in soil (>7mm ACM)	%w/w	0.0100	0.01	-	-	-	-	<0.01	<0.01	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	<0.01	-	-	-	-	<0.01	-	-	<0.01	-	-	<0.01	-
	Asbestos in soil (>2mm to <7mm AF/FA)	%w/w	0.0010	0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	<0.001	-	-	-	-	<0.001	-	-	<0.001	-	-	<0.001	-
	Asbestos in soil (<2mm AF/FA)	%w/w	0.00	0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	<0.001	-	-	-	-	<0.001	-	-	<0.001	-	-	<0.001	-
	Asbestos in soil (<7mm AF/FA)	%w/w	0.001	0.001	-	-	-	-	<0.001	<0.001	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	-	<0.001	-	<0.001	-	-	-	-	<0.001	-	-	<0.001	-	-	<0.001	-
	Fibre Type	No unit	0.000	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Asbestos Detected	No unit	0.000	-	-	-	-	-			-	No	-	-	No	-	-	No	-	-	No	-	-	No	-	-	No	-	-	No	-	No	-	-	-	-	No	-	-	No	-	-	No	-
	Estimated Fibres	%w/w	0	-	-	-	-	-	<0.01	<0.01	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	-	<0.01	-	<0.01	-	-	-	-	<0.01	-	-	<0.01	-	-	<0.01	-

Table LAR1
4 Pennant Avenue, Gordon NSW
Soil Results & Adopted Site Criteria
6839-ER-1-2

									Reference	SE180434.057	SE180434.024	SE180434.025	SE180434.026	SE180434.058	SE180434.027	SE180434.028	SE180434.059	SE180434.060	SE180434.029	SE180434.030	SE180434.061	SE180434.031	SE180434.032	SE180434.062	SE180434.033	SE180434.034	SE180434.035	SE180434.063	SE180434.036	SE180434.064	SE180434.037	SE180434.038	SE180434.065	SE180434.045	SE180434.066	SE180434.067
									Sample ID	TP12-0.0-0.9	TP12-0.5-0.7	TP12-0.9-1.1	TP13-0.0-0.2	TP13-0.0-0.55	TP13-0.45-0.55	TP14-0.0-0.2	TP14-0.0-0.45	TP14-0.45-0.6	TP14-0.45-0.65	TP15-0.0-0.2	TP15-0.0-0.5	TP15-0.4-0.5	TP16-0.0-0.2	TP16-0.0-0.8	TP16-0.6-0.8	TP16-0.8-1.0	TP17-0.0-0.2	TP17-0.0-0.9	TP18-0.0-0.2	TP18-0.0-0.4	TP18-0.4-0.6	TP19-0.0-0.2	TP19-0.0-0.3	FRAG-1	TP16-FRAG 1	TP17-FRAG 1
									Date Sampled	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018	14/6/2018
									Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Material	Material	Material
Group	**Analyte**	**Units**	**PQL**	**Asbestos Health Screening Level (w/w) - NEPC 2013**	**Screening Levels for Direct Contact (mg/kg) - CRC Care 2011**	**Inhalation / Vapour Intrusion HSLs (mg/kg) - NEPC**	**Management Limits for TPH Fractions F1 - F4 in soil (mg/Kg) - NEPC 2013**	**Health Investigation Levels for Soil Contaminants - NEPC 2013**	**Data Set Minimum**																											
				Residential A	**HSL - A Residential (Low Density)**	**HSL A & HSL B - Low - High density**	**Residential, Parkland and Public Open Space**	**Residential A**																												
						0 m to <1 m	**Fine Soil Texture**																													
Metals	Arsenic, As	mg/kg	3	-	-	-	-	100	2	-	10	3	3	-	-	-	-	-	-	4	-	-	-	-	31	-	4	-	17	-	4	27	-	-	-	-
	Cadmium, Cd	mg/kg	0.3	-	-	-	-	20	<0.3	-	0.8	<0.3	0.4	-	-	-	-	-	-	0.9	-	-	-	-	1	-	<0.3	-	2.1	-	<0.3	2.1	-	-	-	-
	Chromium, Cr	mg/kg	0.3	-	-	-	-	100	4.3	-	12	12	19	-	-	-	-	-	-	12	-	-	-	-	9.8	-	7.1	-	14	-	13	16	-	-	-	-
	Copper, Cu	mg/kg	0.5	-	-	-	-	6,000	3.2	-	31	6	5.3	-	-	-	-	-	-	6.2	-	-	-	-	39	-	10	-	13	-	4.3	9.7	-	-	-	-
	Lead, Pb	mg/kg	1	-	-	-	-	300	5	-	380	13	8	-	-	-	-	-	-	9	-	-	-	-	130	-	28	-	56	-	14	67	-	-	-	-
	Nickel, Ni	mg/kg	0.5	-	-	-	-	400	<0.5	-	5.4	3.1	2	-	-	-	-	-	-	2.7	-	-	-	-	6.4	-	2.7	-	3.4	-	3.3	2.3	-	-	-	-
	Zinc, Zn	mg/kg	0.5	-	-	-	-	7,400	<2	-	380	4.9	16	-	-	-	-	-	-	17	-	-	-	-	84	-	33	-	47	-	11	48	-	-	-	-
	Mercury (inorganic)	mg/kg	0.05	-	-	-	-	40	<0.05	-	0.21	<0.05	3.7	-	-	-	-	-	-	3.2	-	-	-	-	1	-	0.37	-	2.1	-	<0.05	2.1	-	-	-	-
PAHS	Naphthalene	mg/kg	0.1	-	-	5	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-
	2-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-
	1-methylnaphthalene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-
	Acenaphthylene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	0.2	-	-	-	-	-	-	-
	Acenaphthene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-
	Fluorene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	0.1	-	-	-	-	-	-	-
	Phenanthrene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	0.1	-	-	<0.1	-	-	-	<0.1	0.1	-	2.4	-	-	-	-	-	-	-
	Anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	0.3	-	-	-	-	-	-	-
	Fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.2	-	-	-	<0.1	-	-	-	0.2	-	-	<0.1	-	-	-	<0.1	0.3	-	4.2	-	-	-	-	-	-	-
	Pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.2	-	-	-	<0.1	-	-	-	0.2	-	-	<0.1	-	-	-	<0.1	0.2	-	3.7	-	-	-	-	-	-	-
	Benzo(a)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.1	-	-	-	<0.1	-	-	-	0.2	-	-	<0.1	-	-	-	<0.1	0.1	-	1.2	-	-	-	-	-	-	-
	Chrysene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.1	-	-	-	<0.1	-	-	-	0.2	-	-	<0.1	-	-	-	<0.1	0.1	-	1.2	-	-	-	-	-	-	-
	Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.2	-	-	-	<0.1	-	-	-	0.3	-	-	<0.1	-	-	-	<0.1	0.2	-	1.8	-	-	-	-	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.1	-	-	-	<0.1	-	-	-	0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	0.6	-	-	-	-	-	-	-
	Benzo(a)pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.2	-	-	-	<0.1	-	-	-	0.2	-	-	<0.1	-	-	-	<0.1	0.1	-	1.8	-	-	-	-	-	-	-
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.1	-	-	-	<0.1	-	-	-	0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	1.4	-	-	-	-	-	-	-
	Dibenzo(ah)anthracene	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	<0.1	-	-	-	-	-	-	-
	Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-	-	<0.1	-	0.1	-	-	-	<0.1	-	-	-	0.1	-	-	<0.1	-	-	-	<0.1	<0.1	-	1.4	-	-	-	-	-	-	-
	Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-	-	-	<0.2	-	0.3	-	-	-	<0.2	-	-	-	0.3	-	-	<0.2	-	-	-	<0.2	<0.2	-	2.3	-	-	-	-	-	-	-
	Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	-	3	<0.3	-	0.4	-	-	-	<0.3	-	-	-	0.4	-	-	<0.3	-	-	-	<0.3	<0.3	-	2.4	-	-	-	-	-	-	-
	Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	-	-	<0.2	-	0.3	-	-	-	<0.2	-	-	-	0.4	-	-	<0.2	-	-	-	<0.2	<0.2	-	2.4	-	-	-	-	-	-	-
	Total PAH (18)	mg/kg	0.8	-	-	-	-	-	<0.8	-	1.4	-	-	-	<0.8	-	-	-	1.8	-	-	<0.8	-	-	-	<0.8	1.1	-	20	-	-	-	-	-	-	-
	Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-	-	300	<0.8	-	1.4	-	-	-	<0.8	-	-	-	1.8	-	-	<0.8	-	-	-	<0.8	1.1	-	20	-	-	-	-	-	-	-
TRH	TRH C6-C9	mg/kg	20	-	-	-	-	-	<20	-	-	-	-	-	<20	-	-	-	<20	-	-	-	<20	-	-	-	-	-	<20	-	-	<20	-	-	-	-
	Benzene (F0)	mg/kg	0.1	-	100	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	TRH C6-C10	mg/kg	25	-	4,400	-	800	-	<25	-	-	-	-	-	<25	-	-	-	<25	-	-	-	<25	-	-	-	-	-	<25	-	-	<25	-	-	-	-
	TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	50	-	-	<25	-	-	-	-	-	<25	-	-	-	<25	-	-	-	<25	-	-	-	-	-	<25	-	-	<25	-	-	-	-
	TRH C10-C14	mg/kg	20	-	-	-	-	-	<20	-	-	-	-	-	<20	-	-	-	<20	-	-	-	<20	-	-	-	-	-	<20	-	-	<20	-	-	-	-
	TRH C15-C28	mg/kg	45	-	-	-	-	-	<45	-	-	-	-	-	<45	-	-	-	<45	-	-	-	<45	-	-	-	-	-	<45	-	-	<45	-	-	-	-
	TRH C29-C36	mg/kg	45	-	-	-	-	-	<45	-	-	-	-	-	<45	-	-	-	<45	-	-	-	<45	-	-	-	-	-	<45	-	-	<45	-	-	-	-
	TRH C37-C40	mg/kg	100	-	-	-	-	-	<100	-	-	-	-	-	<100	-	-	-	<100	-	-	-	<100	-	-	-	-	-	<100	-	-	<100	-	-	-	-
	TRH >C10-C16 (F2)	mg/kg	25	-	3,300	280	1,000	-	<25	-	-	-	-	-	<25	-	-	-	<25	-	-	-	<25	-	-	-	-	-	<25	-	-	<25	-	-	-	-
	TRH >C10-C16 (F2) - Naphthalene	mg/kg	25	-	-	-	-	-	<25	-	-	-	-	-	<25	-	-	-	<25	-	-	-	<25	-	-	-	-	-	<25	-	-	<25	-	-	-	-
	TRH >C16-C34 (F3)	mg/kg	90	-	4,500	-	3,500	-	<90	-	-	-	-	-	<90	-	-	-	<90	-	-	-	<90	-	-	-	-	-	<90	-	-	<90	-	-	-	-
	TRH >C34-C40 (F4)	mg/kg	120	-	6,300	-	10,000	-	<120	-	-	-	-	-	<120	-	-	-	<120	-	-	-	<120	-	-	-	-	-	<120	-	-	<120	-	-	-	-
	TRH C10-C36 Total	mg/kg	110	-	-	-	-	-	<110	-	-	-	-	-	<110	-	-	-	<110	-	-	-	<110	-	-	-	-	-	<110	-	-	<110	-	-	-	-
	TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-	-	<210	-	-	-	-	-	<210	-	-	-	<210	-	-	-	<210	-	-	-	-	-	<210	-	-	<210	-	-	-	-
VOCs	Benzene	mg/kg	0.1	-	100	0.7	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Toluene	mg/kg	0.1	-	14,000	480	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Ethylbenzene	mg/kg	0.1	-	4,500	NL	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	m/p-xylene	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	-	<0.2	-	-	-	-	-	<0.2	-	-	<0.2	-	-	-	-
	o-xylene	mg/kg	0.1	-	-	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Total Xylenes	mg/kg	0.3	-	12,000	110	-	-	<0.3	-	-	-	-	-	<0.3	-	-	-	<0.3	-	-	-	<0.3	-	-	-	-	-	<0.3	-	-	<0.3	-	-	-	-
	Total BTEX	mg/kg	0.6	-	-	-	-	-	<0.6	-	-	-	-	-	<0.6	-	-	-	<0.6	-	-	-	<0.6	-	-	-	-	-	<0.6	-	-	<0.6	-	-	-	-
	Naphthalene	mg/kg	0.1	-	1,400	5	-	-	<0.1	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	-	<0.1	-	-	-	-	-	<0.1	-	-	<0.1	-	-	-	-
OCP	Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-	10	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Alpha BHC	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Lindane	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Heptachlor	mg/kg	0.1	-	-	-	-	6	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Aldrin	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Beta BHC	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Delta BHC	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Heptachlor epoxide	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	o,p'-DDE	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Alpha Endosulfan	mg/kg	0.2	-	-	-	-	-	<0.2	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	<0.2	-	-	-	-
	Gamma Chlordane	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Alpha Chlordane	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	trans-Nonachlor	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	0.1	-	-	<0.1	-	-	-	-
	p,p'-DDE	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Dieldrin	mg/kg	0.2	-	-	-	-	-	<0.2	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	0.2	-	-	<0.2	-	-	-	-
	Endrin	mg/kg	0.2	-	-	-	-	10	<0.2	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	<0.2	-	-	-	-
	o,p'-DDD	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	o,p'-DDT	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Beta Endosulfan	mg/kg	0.2	-	-	-	-	-	<0.2	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	<0.2	-	-	<0.2	-	-	-	-
	p,p'-DDD	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	p,p'-DDT	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Endosulfan sulphate	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Endrin Aldehyde	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Methoxychlor	mg/kg	0.1	-	-	-	-	300	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Endrin Ketone	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Isodrin	mg/kg	0.1	-	-	-	-	-	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Mirex	mg/kg	0.1	-	-	-	-	10	<0.1	-	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	-	-	-	<0.1	-	-	<0.1	-	-	-	-
	Total CLP OC Pesticides	mg/kg	1	-	-	-	-	-	<1	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	<1	-	-	<1	-	-	-	-
	DDT + DDE + DDD	mg/kg	0.1	-	-	-	-	240	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-	0	-	-	-	-
	Alpha + Beta Endosulfan	mg/kg	0.1	-	-	-	-	270	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-	0	-	-	-	-
	Aldrin + Dieldrin	mg/kg	0.1	-	-	-	-	6	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0.2	-	-	0	-	-	-	-
	Alpha + Gamma Chlordane	mg/kg	0.1	-	-	-	-	50	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-	0	-	-	-	-
Phenoxy Acid Herbicides	Acifluorfen	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Bentazon	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Chloramben	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	24-D	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	24-DB	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Dicamba	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	3,5-Dichlorobenzoic acid	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Dichloroprop	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Dinoseb	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	MCPA	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	MCPP	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	4-Nitrophenol	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Pentachlorophenol	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	Picloram	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	245-T	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
	245-TP	mg/kg	0.5	-	-	-	-	-	<0.5	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
PCBs	Arochlor 1016	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1221	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1232	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1242	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1248	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1254	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1260	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1262	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Arochlor 1268	mg/kg	0.2	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total PCBs (Arochlors)	mg/kg	1	-	-	-	-	1	<1	-	-	-	-	-	-	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Asbestos	Total Sample Weight	g	1	-	-	-	-	-		973	-	-	-	864	-	-	1130	961	-	-	793	-	-	1033	-	-	-	1025	-	701	-	-	1049	-	-	-
	ACM in >7mm Sample	g	0.01	-	-	-	-	-	<0.01	<0.01	-	-	-	<0.01	-	-	<0.01	<0.01	-	-	<0.01	-	-	<0.01	-	-	-	<0.01	-	<0.01	-	-	<0.01	-	-	-
	AF/FA in >2mm to <7mm Sample	g	0	-	-	-	-	-	<0.0001	<0.0001	-	-	-	<0.0001	-	-	<0.0001	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	-	<0.0001	-	<0.0001	-	-	<0.0001	-	-	-
	AF/FA in <2mm Sample	g	0.00	-	-	-	-	-	<0.0001	<0.0001	-	-	-	<0.0001	-	-	<0.0001	<0.0001	-	-	<0.0001	-	-	<0.0001	-	-	-	<0.0001	-	<0.0001	-	-	<0.0001	-	-	-
	Asbestos in soil (>7mm ACM)	%w/w	0.0100	0.01	-	-	-	-	<0.01	<0.01	-	-	-	<0.01	-	-	<0.01	<0.01	-	-	<0.01	-	-	<0.01	-	-	-	<0.01	-	<0.01	-	-	<0.01	-	-	-
	Asbestos in soil (>2mm to <7mm AF/FA)	%w/w	0.0010	0.001	-	-	-	-	<0.001	<0.001	-	-	-	<0.001	-	-	<0.001	<0.001	-	-	<0.001	-	-	<0.001	-	-	-	<0.001	-	<0.001	-	-	<0.001	-	-	-
	Asbestos in soil (<2mm AF/FA)	%w/w	0.00	0.001	-	-	-	-	<0.001	<0.001	-	-	-	<0.001	-	-	<0.001	<0.001	-	-	<0.001	-	-	<0.001	-	-	-	<0.001	-	<0.001	-	-	<0.001	-	-	-
	Asbestos in soil (<7mm AF/FA)	%w/w	0.001	0.001	-	-	-	-	<0.001	<0.001	-	-	-	<0.001	-	-	<0.001	<0.001	-	-	<0.001	-	-	<0.001	-	-	-	<0.001	-	<0.001	-	-	<0.001	-	-	-
	Fibre Type	No unit	0.000	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Asbestos Detected	No unit	0.000	-	-	-	-	-		No	-	-	-	No	-	-	No	No	-	-	No	-	-	No	-	-	-	No	-	No	-	-	No	Yes	Yes	Yes
	Estimated Fibres	%w/w	0	-	-	-	-	-	<0.01	<0.01	-	-	-	<0.01	-	-	<0.01	<0.01	-	-	<0.01	-	-	<0.01	-	-	-	<0.01	-	<0.01	`	-	<0.01			

Table LAR2 - RPD
4 Pennant Avenue, Gordon NSW
Soil Results & RPD Calculations
6839-ER-1-2

Reference				SE180434.005	SE180434.039		S18-Jn18780		SE180434.001	SE180434.040		S18-Jn18781	
Sample ID				TP03-0.0-0.2	DUP-01		DUP-1A		TP01-0.0-0.2	DUP-02		DUP-2A	
Date Sampled				14/6/2018	14/6/2018		14/6/2018		14/6/2018	14/6/2018		14/6/2018	
Sample Matrix				Soil	Soil		Soil		Soil	Soil		Soil	
Group	**Analyte**	**Units**	**PQL**			RPD (%)		RPD (%)			RPD (%)		RPD (%)
Metals	Arsenic	mg/kg	<1	4	3	29	4.1	2	31	40	25	52	51
	Cadmium	mg/kg	<0.3	0.6	0.7	15	0.8	29	2.4	5.9	84	2.4	0
	Chromium	mg/kg	<0.3	13	16	21	15	14	10	9	9	13	26
	Copper	mg/kg	<0.5	6	5	9	6.6	16	11	11	0	12	9
	Lead	mg/kg	<1	7	7	0	8.4	18	140	180	25	190	30
	Nickel	mg/kg	<0.5	2.3	2.2	4	< 5	N/A	3.5	4.1	16	< 5	N/A
	Zinc	mg/kg	<0.5	11	12	9	16	37	46	84	58	81	55
	Mercury	mg/kg	<0.05	2.60	3.50	30	3.1	18	6.3	7.8	21	9.2	37

N/A - When the sample concentration is less than the LOR or the primary sample concentration is less than ten times the LOF

RPD exceedences

APPENDIX A

SURVEY

BUSHLANDS AVENUE

No. 26
TWO STOREY
BRICK HOUSE
TILE ROOF

No. 24
RENDERED HOUSE
TILE ROOF

No. 22
RENDERED HOUSE
TILE ROOF

No. 28A
BRICK HOUSE
TILE ROOF

BRICK HOUSE
TILE ROOF

2
D.P.527667

A
D.P.386142

A
D.P.380124

A
D.P.378663

3
D.P.215603

D.P.7519

D.P.367899

TENNIS
COURT

TIMBER CLAD
CLUBHOUSE
METAL ROOF

GREEN
No. 2

GREEN
No. 3

Y
D.P. 387680
11218m²

Z
D.P.384133

B
D.P.380118

B
D.P.380430

PENNANT AVENUE

BENCH MARK
NAIL IN CONCRETE
RL 98.045m AHD

BENCH MARK
NAIL IN CONCRETE
RL 97.40m AHD

APPROXIMATE POSITION ONLY

Ⓐ EASEMENT TO DRAIN WATER 1 WIDE (VIDE D.P.267125)
Ⓑ EASEMENT TO DRAIN WATER 1 WIDE (VIDE DEALING S823615I)
Ⓒ EASEMENT FOR DRAINAGE 0.455 WIDE (VIDE DEALING F815777)
(APPROXIMATE POSITION ONLY)
Ⓓ EASEMENT TO DRAIN WATER 1 WIDE (VIDE DEALING T185588)
(APPROXIMATE POSITION ONLY)

GORDON BOWLING CLUB
LOT Y IN D.P.387680

0 5 10 15 20
SCALE NTS

CMS SURVEYORS
PO Box 463 Dee Why
NSW 2099
10/32 Campbell Avenue,
Dee Why NSW 2099
Telephone: (02) 9971 4802
Facsimile: (02) 9971 4822
E-mail: cmssurveyors@bigpond.com

L.G.A. KU-RING-GAI		SHEET 1 OF 1	
SURVEYED SE	DRAWN CJR	CHECKED SE	APPROVED SM
SURVEY REFERENCE 478		SCALE 1:200	DATE 22/09/09
DRAWING NUMBER 478detail.dwg			REV. B

RECEIVED 29 JUN 2009 QUEENSLAND SURVEYING SERVICE

APPENDIX B

LOGS

Alliance Geotechnical
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E: office@allgeo.com.au
W: www.allgeo.com.au

TEST PIT No: TP01
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW
Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND, brown, medium grained, loose, moist.	TP01 (0.0-0.2m)	M	PID: 0.4ppm. Asbestos sample (0.0-0.25m). Grass at surface. No potential ACM, odours or staining noted.
			0.5		CH	CLAY, grey/red mottle, high plasticity, stiff, moist.	TP01 (0.25-0.4m)	M	PID: 0.3ppm. No potential ACM, odours or staining noted.
			1.0			End of hole at 0.8m - Target depth			
			1.5						
			2.0						

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TEST PIT No: TP02
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND, brown, medium grained, loose, moist.	TP02 (0.0-0.2m)		PID: 0.5ppm. Asbestos sample (0.0-0.25m). Grass at surface. No potential ACM, odours or staining noted.
					CL-CH	CLAY, grey/rorange/red, medium plasticity, soft, moist.	TP02 (0.25-0.4m)		PID: 0.2ppm. No potential ACM, odours or staining noted.
			0.5						
						End of hole at 0.7m - Target depth			
			1.0						
			1.5						
			2.0						

BOREHOLE / TEST PIT 6839-ER-1-2-LOGS.GPJ GINT STD AUSTRALIA.GDT 15/6/18

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TEST PIT No: TP03
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP03 (0.0-0.2m)	M	PID: 0.8ppm. Asbestos sample (0.0-0.65m). Grass at surface. No potential ACM, odours or staining noted. Large amount of 10-70mm riverstones noted between 0.3-0.6m.
			1.0		CH	CLAY, red/grey, high plasticity, firm, moist.	TP03 (0.65-0.8m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP04
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP04 (0.0-0.2m)	M	PID: 0.3ppm. Asbestos sample (0.0-0.6m). Grass at surface. No potential ACM, odours or staining noted. Large amount of 10-70mm riverstones noted between 0.3-0.6m.
			1.0		CH	CLAY, grey/red mottle, high plasticity, stiff, moist.	TP04 (0.6-0.8m)	M	PID: 0.4ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP05
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP05 (0.0-0.2m)	M	PID: 0.4ppm. Asbestos sample (0.0-0.65m). Grass at surface. No potential ACM, odours or staining noted. Large amount of 10-70mm riverstones noted between 0.3-0.6m.
			1.0		CH	CLAY, red/grey/orange mottle, high plasticity, firm, moist.	TP05 (0.65-0.8m)	M	PID: 0.3ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP06
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP06 (0.0-0.2m)	M	PID: 0.8ppm. Asbestos sample (0.0-0.6m). Grass at surface. No potential ACM, odours or staining noted. Large amount of 10-70mm riverstones noted between 0.3-0.6m.
					CH	CLAY, grey/red mottle, high plasticity, stiff, moist.	TP06 (0.6-0.8m)	M	PID: 0.8ppm. No potential ACM, odours or staining noted.
			1.0 1.5 2.0			End of hole at 0.9m - Target depth			

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F: 02 9675 1888
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TEST PIT No: TP07
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: CLAY with trace silt, brown/orange, medium plasticity, soft, moist.	TP07 (0.0-0.2m)	M	PID: 0.3ppm. Asbestos sample (0.0-0.7m). Grass at surface. No potential ACM, odours or staining noted.
			1.0		CH	CLAY, red/orange mottle, high plasticity, stiff, moist.	TP07 (0.7-0.9m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP08
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: CLAY with trace gravels, red/brown, medium plasticity, soft, moist with glass fragments observed.	TP08 (0.0-0.2m)	M	PID: 0.5ppm. Asbestos sample (0.0-1.0m). Grass at surface. No potential ACM, odours or staining noted.
			1.0				TP08 (0.8-1.0m)		PID: 0.6ppm. Some terracotta tile and brick fragments observed at 0.8m.
			1.5		CL-CH	CLAY, red/grey, medium plasticity, soft, moist.	TP08 (1.0-1.2m)	M	PID: 0.8ppm. No potential ACM, odours or staining noted.
			2.0			End of hole at 1.8m - Target depth			

BOREHOLE / TEST PIT 6839-ER-1-2-LOGS.GPJ GINT STD AUSTRALIA.GDT 15/6/18

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TEST PIT No: TP09
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty CLAY, brown, medium plasticity, soft, moist.	TP09 (0.0-0.2m)	M	PID: 0.6ppm. Asbestos sample (0.0-0.6m). Grass at surface. No potential ACM, odours or staining noted.
			1.0		CH	CLAY, red/brown/grey mottle, high plasticity, firm, moist.	TP09 (0.6-0.8m)	M	PID: 0.6ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP10
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP10 (0.0-0.2m)	M	PID: 0.9ppm. Asbestos sample (0.0-0.7m). Grass at surface. No potential ACM, odours or staining noted.
			1.0			FILL: AGGREGATE / SANDSTONE cobbles, grey/orange/black, loose, wet with water inflow observed.	TP10 (0.5-0.7m)	W	PID: 0.8ppm. No potential ACM, odours or staining noted.
					CH	CLAY, red/grey mottle, high plasticity, firm, moist.	TP10 (0.7-0.9m)	M	PID: 0.9ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP11
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND, brown, medium grained, loose, moist.	TP11 (0.0-0.2m)	M	PID: 0.6ppm. Asbestos sample (0.0-0.7m). Grass at surface. No potential ACM, odours or staining noted.
			1.0			FILL: AGGREGATE / SANDSTONE cobbles, grey/orange/black, loose, moist.	TP11 (0.5-0.7m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
					CH	CLAY, red/grey mottle, high plasticity, soft, moist.	TP11 (0.7-0.9m)	M	PID: 0.7ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.0m - Target depth			
			2.0						

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TEST PIT No: TP12
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty SAND with some clay, brown, medium grained, loose, moist.	TP12 (0.0-0.2m)	M	PID: 0.5ppm. Asbestos sample (0.0-0.9m). Grass at surface. No potential ACM, odours or staining noted.
						FILL: SANDSTONE cobbles and boiler waste gravels, black/grey/red, medium density, moist with glass, terracotta tiles and plastice observed.	TP12 (0.5-0.7m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
			1.0		CL-CH	CLAY, brown/orange, medium plasticity, soft, moist.	TP12 (0.9-1.1m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
			1.5		CL-CH	Colour change to grey/orange, becoming wet.	TP12 (1.4-1.6m)	W	PID: 0.6ppm.
			2.0			End of hole at 1.8m - Target depth			

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TEST PIT No: TP13
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND, brown, medium grained, loose, moist.	TP13 (0.0-0.2m)	M	PID: 0.3ppm. Asbestos sample (0.0-0.55m). Grass at surface. No potential ACM, odours or staining noted.
			0.5			FILL: SANDSTONE cobbles and boiler waste gravels, black/grey/red, medium density, moist.	TP13 (0.45-0.55m)	M	PID: 0.3ppm. No potential ACM, odours or staining noted.
					CH	CLAY, red/grey mottle, high plasticity, stiff, moist.	TP13 (0.55-0.7m)	M	PID: 0.6ppm. No potential ACM, odours or staining noted.
			1.0			End of hole at 1.0m - Target depth			
			1.5						
			2.0						

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TEST PIT No: TP14
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND with some clay, brown, medium grained, loose, moist.	TP14 (0.0-0.2m)	M	PID: 0.6ppm. Asbestos sample (0.0-0.45m). Grass at surface. No potential ACM, odours or staining noted.
			0.5			FILL: SANDSTONE cobbles with boiler waste gravels, grey/orange/black, loose, moist.	TP14 (0.45-0.6m)	M	PID: 0.6ppm. Asbestos sample (0.45-0.6m). No potential ACM, odours or staining noted.
					CH	CLAY, red/grey mottle, firm, moist.	TP14 (0.6-0.8m)	M	PID: 0.6ppm. No potential ACM, odours or staining noted.
			1.0			End of hole at 1.0m - Target depth			
			1.5						
			2.0						

BOREHOLE / TEST PIT 6839-ER-1-2-LOGS.GPJ GINT STD AUSTRALIA.GDT 15/6/18

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TEST PIT No: TP15
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND, brown, medium grained, loose, moist.	TP15 (0.0-0.2m)	M	PID: 0.4ppm. Asbestos sample (0.0-0.5m). Grass at surface. No potential ACM, odours or staining noted.
			0.5			FILL: SANDSTONE cobbles and boiler waste gravels, black/grey/red, medium density, moist.	TP15 (0.4-0.5m)	M	PID: 0.5ppm. No potential ACM, odours or staining noted.
					CH	CLAY, red/grey mottle, high plasticity, stiff, moist.	TP15 (0.5-0.7m)	M	PID: 0.4ppm. No potential ACM, odours or staining noted.
			1.0						
						End of hole at 1.0m - Target depth			
			1.5						
			2.0						

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TEST PIT No: TP16
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty CLAY, brown, medium plasticity, soft, moist with lrage amount of bricks, concrete cobbles, 800mm slabs and small cables (possibly telephone cables) observed.	TP16 (0.0-0.2m)	M	Suspected ACM fragment found (52g). PID: 0.8ppm. Asbestos sample (0.0-0.8m). Grass at surface. No odours or staining noted.
							TP16 (0.6-0.8m)		PID: 0.9ppm.
			1.0		CH	CLAY, red/grey mottle, stiff, moist.	TP16 (0.8-1.0m)	M	PID: 1.4ppm. No potential ACM, odours or staining noted.
						End of hole at 1.1m - Target depth			
			1.5						
			2.0						

BOREHOLE / TEST PIT 6839-ER-1-2-LOGS.GPJ GINT STD AUSTRALIA.GDT 15/6/18

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TEST PIT No: TP17
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator			0.5			FILL: Silty CLAY, brown, low plasticity, medium density, moist with tree roots, ironstone gravels, terracotta pipe and brick fragments and sandstone cobbles observed.	TP17 (0.0-0.2m)	M	Suspected ACM fragment found (12.4g). PID: 1.1ppm. Asbestos sample (0.0-0.9m). Grass at surface. No odours or staining noted.
			1.0		CH	CLAY, red/grey mottle, high plasticity, stiff, moist.	TP17 (0.9-1.1m)	M	PID: 1.2ppm. No potential ACM, odours or staining noted.
			1.5			End of hole at 1.2m - Target depth			
			2.0						

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TEST PIT No: TP18
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND with some clay, brown, medium grained, medium density, moist with terracotta pipe fragments, riverstone and plastic tarp observed.	TP18 (0.0-0.4m)	M	PID: 0.6ppm. Asbestos sample (0.0-0.4m). Grass at surface. No potential ACM, odours or staining noted.
			0.5		CH	CLAY, grey/red/orange mottle, high plasticity, soft, moist.	TP18 (0.4-0.8m)	M	PID: 0.8ppm. No potential ACM, odours or staining noted.
			1.0			End of hole at 0.8m - Target depth			
			1.5						
			2.0						

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TEST PIT No: TP19
Sheet: 1 of 1
Job No: 6839

Borehole Log

Client: Ku-ring-gai Council
Project: Stage 2 DSI
Location: 4 Pennant Avenue, Gordon NSW

Started: 14/6/18
Finished: 14/6/18
Borehole Size:

Rig Type: 3.5t Excavator | **Driller:** Ken Coles | **Northing:** | **Logged:** SS
RL Surface: | **Contractor:** AG | **Easting:** | **Checked:** CC

Method	Water	RL (m)	Depth (m)	Graphic Log	Classification Symbol	Material Description	Samples Tests Remarks	Moisture Condition	Additional Observations
3.5t Excavator						FILL: Silty SAND, brown, medium grained, loose, moist.	TP19 (0.0-0.2m)	M	PID: 0.6ppm. Asbestos sample (0.0-0.3m). Grass at surface. No potential ACM, odours or staining noted.
			0.5		CH	CLAY, red/grey/dark grey, high plasticity, soft, wet.	TP19 (0.3-0.5m)	W	PID: 1.3ppm. No potential ACM, odours or staining noted. Tree root observed at 0.6m.
			1.0 1.5 2.0			End of hole at 0.8m - Target depth			

APPENDIX C

CALIBRATION

6839

ThermoFisher SCIENTIFIC

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RENTALS

Equipment Report - MiniRAE 3000 PID

This Gas Meter has been performance checked and calibrated as follows:

Lamp	Compound	Concentration	Zero	Span	Traceability Lot #	Pass?
10.6 eV	Isobutylene	100 ppm	0 ppm	100 ppm	389261 Cyl: 9	☑

Alarm Limits

High	100 ppm
Low	50 ppm

Bump Test

Date	Target Gas	Reading	Pass?
08/06/2018	100 ppm	99.9 ppm	☑

☐ Battery Status 100 %
☑ 10 minutes test complete
☑ Spare battery status (Min 5.5 volts)
☑ Electrical Safety Tag attached (AS/NZS 3760)

☑ Performance check (pump, lamp, sensor)
☑ Data cleared
☑ Filters checked

Tag No: 000448

Valid to: 11/07/2018

Date: 08/06/2018

Signed: [signature]

Please check that the following items are received and that all items are cleaned and decontaminated before return. A minimum $30 cleaning / service / repair charge may be applied to any unclean or damaged items. Items not returned will be billed for at the full replacement cost.

Sent	Returned	Item
☑	☐	MiniRAE 2000 PID / Operational Check / Battery Status 100 %
☑	☐	Lamp _10.6 eV, Compound Set to: isobutylene_ C/factor: ____1_____
☑	☐	Protective yellow rubber boot
☑	☐	Inlet probe (attached to PID)
☑	☐	Spare water trap filter(s) Qty ____2____
☑	☐	Charger 240V to 12V1250mA
☑	☐	Cradle and Travel Charger
☑	☐	Instruction Manual behind foam on the lid of case "
☑	☐	Quick Guide Sheet behind foam on the lid of case "
☑	☐	Spare Alkaline Battery Compartment with batteries
☑	☐	Inline Moisture trap Filter Guide Laminated
☐	☐	Calibration regulator & tubing (optional)
☐	☐	Data cable and Software CD (optional)
☑	☐	Carry Case
☑	☐	Check to confirm electrical safety (tag must be valid)

Date: 08/06/2018

Signed: [signature]

TFS Reference	CS608972	Return Date:	/ /
Customer Reference		Return Time:	
Equipment ID	PID3000-17	Condition on return:	
Equipment Serial No.	592-914209		

APPENDIX D

LABORATORY

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Michael Dunesky	Manager	Huong Crawford
Client	ALLIANCE GEOTECHNICAL PTY LTD	Laboratory	SGS Alexandria Environmental
Address	10 Welder Road Seven Hills NSW 2147	Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	02 9675 1777	Telephone	+61 2 8594 0400
Facsimile	02 9675 1888	Facsimile	+61 2 8594 0499
Email	michael@allgeo.com.au	Email	au.environmental.sydney@sgs.com
Project	**6839 Gordon**	SGS Reference	**SE180434 R0**
Order Number	**P1372**	Date Received	15 Jun 2018
Samples	67	Date Reported	29 Jun 2018

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in soil samples using trace analysis technique.

Asbestos analysed by approved identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .
11 Soils on hold
Phenoxy Acid Herb subcontracted to SGS Melbourne , 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemis

Dong Liang
Metals/Inorganics Team Leader

Ly Kim Ha
Organic Section Head

Ravee Sivasubramaniam
Hygiene Team Leader

Teresa Nguyen
Organic Chemist

Parameter	Units	LOR	Sample Number: SE180434.001 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP01-0.0-0.2	SE180434.002 Soil 14 Jun 2018 TP01-0.25-0.4	SE180434.003 Soil 14 Jun 2018 TP02-0.0-0.2	SE180434.004 Soil 14 Jun 2018 TP02-0.25-0.4
VOC's in Soil Method: AN433 Tested: 19/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	-	<0.1	-
Toluene	mg/kg	0.1	<0.1	-	<0.1	-
Ethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-
m/p-xylene	mg/kg	0.2	<0.2	-	<0.2	-
o-xylene	mg/kg	0.1	<0.1	-	<0.1	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**106**	-	**120**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	-	**110**	-
d8-toluene (Surrogate)	%	-	**86**	-	**97**	-
Bromofluorobenzene (Surrogate)	%	-	**77**	-	**85**	-
Totals						
Total Xylenes	mg/kg	0.3	<0.3	-	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	-	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 19/6/2018						
TRH C6-C10	mg/kg	25	<25	-	<25	-
TRH C6-C9	mg/kg	20	<20	-	<20	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**106**	-	**120**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	-	**110**	-
d8-toluene (Surrogate)	%	-	**86**	-	**97**	-
Bromofluorobenzene (Surrogate)	%	-	**77**	-	**85**	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	-	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	-	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.001 Soil 14 Jun 2018 TP01-0.0-0.2	SE180434.002 Soil 14 Jun 2018 TP01-0.25-0.4	SE180434.003 Soil 14 Jun 2018 TP02-0.0-0.2	SE180434.004 Soil 14 Jun 2018 TP02-0.25-0.4
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018						
TRH C10-C14	mg/kg	20	<20	-	<20	-
TRH C15-C28	mg/kg	45	<45	-	<45	-
TRH C29-C36	mg/kg	45	<45	-	<45	-
TRH C37-C40	mg/kg	100	<100	-	<100	-
TRH C10-C36 Total	mg/kg	110	<110	-	<110	-
TRH C10-C40 Total (F bands)	mg/kg	210	<210	-	<210	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	<25	-	<25	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	-	<25	-
TRH >C16-C34 (F3)	mg/kg	90	<90	-	<90	-
TRH >C34-C40 (F4)	mg/kg	120	<120	-	<120	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Phenanthrene	mg/kg	0.1	**0.2**	-	**0.1**	<0.1
Anthracene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Fluoranthene	mg/kg	0.1	**0.3**	-	**0.3**	<0.1
Pyrene	mg/kg	0.1	**0.3**	-	**0.3**	<0.1
Benzo(a)anthracene	mg/kg	0.1	**0.2**	-	**0.2**	<0.1
Chrysene	mg/kg	0.1	**0.2**	-	**0.2**	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.3**	-	**0.3**	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	-	**0.1**	<0.1
Benzo(a)pyrene	mg/kg	0.1	**0.2**	-	**0.3**	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.2**	-	**0.2**	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	**0.1**	-	**0.1**	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	**0.3**	-	**0.3**	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	**0.4**	-	**0.4**	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.4**	-	**0.4**	<0.2
Total PAH (18)	mg/kg	0.8	**2.1**	-	**1.9**	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**2.1**	-	**1.9**	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**102**	-	**102**	**90**
2-fluorobiphenyl (Surrogate)	%	-	**98**	-	**96**	**88**
d14-p-terphenyl (Surrogate)	%	-	**104**	-	**102**	**92**
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.001 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP01-0.0-0.2	SE180434.002 Soil 14 Jun 2018 TP01-0.25-0.4	SE180434.003 Soil 14 Jun 2018 TP02-0.0-0.2	SE180434.004 Soil 14 Jun 2018 TP02-0.25-0.4
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**31**	**3**	**51**	**9**
Cadmium, Cd	mg/kg	0.3	**2.4**	<0.3	**3.1**	<0.3
Chromium, Cr	mg/kg	0.3	**10**	**7.8**	**11**	**8.8**
Copper, Cu	mg/kg	0.5	**11**	**6.2**	**11**	**5.3**
Nickel, Ni	mg/kg	0.5	**3.5**	**0.7**	**3.6**	<0.5
Lead, Pb	mg/kg	1	**140**	**15**	**180**	**13**
Zinc, Zn	mg/kg	2	**46**	**8.6**	**39**	**7.1**
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**6.3**	<0.05	**10**	<0.05

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.001 Soil 14 Jun 2018 TP01-0.0-0.2	SE180434.002 Soil 14 Jun 2018 TP01-0.25-0.4	SE180434.003 Soil 14 Jun 2018 TP02-0.0-0.2	SE180434.004 Soil 14 Jun 2018 TP02-0.25-0.4
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**11**	**12**	**9.6**	**9.3**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.001 Soil 14 Jun 2018 TP01-0.0-0.2	SE180434.002 Soil 14 Jun 2018 TP01-0.25-0.4	SE180434.003 Soil 14 Jun 2018 TP02-0.0-0.2	SE180434.004 Soil 14 Jun 2018 TP02-0.25-0.4
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.005 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP03-0.0-0.2	SE180434.006 Soil 14 Jun 2018 TP03-0.65-0.8	SE180434.007 Soil 14 Jun 2018 TP04-0.0-0.2	SE180434.008 Soil 14 Jun 2018 TP04-0.6-0.8
VOC's in Soil Method: AN433 Tested: 19/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	-	<0.1	-
Toluene	mg/kg	0.1	<0.1	-	<0.1	-
Ethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-
m/p-xylene	mg/kg	0.2	<0.2	-	<0.2	-
o-xylene	mg/kg	0.1	<0.1	-	<0.1	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**109**	-	**111**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	-	**100**	-
d8-toluene (Surrogate)	%	-	**89**	-	**92**	-
Bromofluorobenzene (Surrogate)	%	-	**76**	-	**81**	-
Totals						
Total Xylenes	mg/kg	0.3	<0.3	-	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	-	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 19/6/2018						
TRH C6-C10	mg/kg	25	<25	-	<25	-
TRH C6-C9	mg/kg	20	<20	-	<20	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**109**	-	**111**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**96**	-	**100**	-
d8-toluene (Surrogate)	%	-	**89**	-	**92**	-
Bromofluorobenzene (Surrogate)	%	-	**76**	-	**81**	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	-	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	-	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.005 Soil 14 Jun 2018 TP03-0.0-0.2	SE180434.006 Soil 14 Jun 2018 TP03-0.65-0.8	SE180434.007 Soil 14 Jun 2018 TP04-0.0-0.2	SE180434.008 Soil 14 Jun 2018 TP04-0.6-0.8
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018							
TRH C10-C14	mg/kg	20		<20	-	<20	-
TRH C15-C28	mg/kg	45		<45	-	<45	-
TRH C29-C36	mg/kg	45		<45	-	<45	-
TRH C37-C40	mg/kg	100		<100	-	<100	-
TRH C10-C36 Total	mg/kg	110		<110	-	<110	-
TRH C10-C40 Total (F bands)	mg/kg	210		<210	-	<210	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		<25	-	<25	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		<25	-	<25	-
TRH >C16-C34 (F3)	mg/kg	90		<90	-	<90	-
TRH >C34-C40 (F4)	mg/kg	120		<120	-	<120	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018							
Naphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	-
2-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	-
1-methylnaphthalene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Acenaphthylene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Acenaphthene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Fluorene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Phenanthrene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Benzo(a)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Chrysene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Benzo(b&j)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Benzo(k)fluoranthene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Benzo(a)pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Dibenzo(ah)anthracene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Benzo(ghi)perylene	mg/kg	0.1		<0.1	<0.1	<0.1	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		<0.2	<0.2	<0.2	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		<0.3	<0.3	<0.3	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		<0.2	<0.2	<0.2	-
Total PAH (18)	mg/kg	0.8		<0.8	<0.8	<0.8	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		<0.8	<0.8	<0.8	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		**112**	**94**	**100**	-
2-fluorobiphenyl (Surrogate)	%	-		**106**	**92**	**100**	-
d14-p-terphenyl (Surrogate)	%	-		**112**	**92**	**114**	-
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.005 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP03-0.0-0.2	SE180434.006 Soil 14 Jun 2018 TP03-0.65-0.8	SE180434.007 Soil 14 Jun 2018 TP04-0.0-0.2	SE180434.008 Soil 14 Jun 2018 TP04-0.6-0.8
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	<0.2	-	-	-
Arochlor 1221	mg/kg	0.2	<0.2	-	-	-
Arochlor 1232	mg/kg	0.2	<0.2	-	-	-
Arochlor 1242	mg/kg	0.2	<0.2	-	-	-
Arochlor 1248	mg/kg	0.2	<0.2	-	-	-
Arochlor 1254	mg/kg	0.2	<0.2	-	-	-
Arochlor 1260	mg/kg	0.2	<0.2	-	-	-
Arochlor 1262	mg/kg	0.2	<0.2	-	-	-
Arochlor 1268	mg/kg	0.2	<0.2	-	-	-
Total PCBs (Arochlors)	mg/kg	1	<1	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**107**	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**4**	**5**	**4**	**2**
Cadmium, Cd	mg/kg	0.3	**0.6**	<0.3	**0.8**	<0.3
Chromium, Cr	mg/kg	0.3	**13**	**12**	**26**	**4.3**
Copper, Cu	mg/kg	0.5	**5.6**	**4.2**	**4.9**	**4.0**
Nickel, Ni	mg/kg	0.5	**2.3**	<0.5	**0.9**	<0.5
Lead, Pb	mg/kg	1	**7**	**15**	**5**	**10**
Zinc, Zn	mg/kg	2	**11**	**4.6**	**5.5**	<2.0
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**2.6**	<0.05	**4.6**	<0.05

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.005 Soil 14 Jun 2018 TP03-0.0-0.2	SE180434.006 Soil 14 Jun 2018 TP03-0.65-0.8	SE180434.007 Soil 14 Jun 2018 TP04-0.0-0.2	SE180434.008 Soil 14 Jun 2018 TP04-0.6-0.8
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**7.1**	**16**	**5.1**	**12**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.005 Soil 14 Jun 2018 TP03-0.0-0.2	SE180434.006 Soil 14 Jun 2018 TP03-0.65-0.8	SE180434.007 Soil 14 Jun 2018 TP04-0.0-0.2	SE180434.008 Soil 14 Jun 2018 TP04-0.6-0.8
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.009 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP05-0.0-0.2	SE180434.010 Soil 14 Jun 2018 TP05-0.65-0.8	SE180434.011 Soil 14 Jun 2018 TP06-0.0-0.2	SE180434.012 Soil 14 Jun 2018 TP06-0.6-0.8
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.009 Soil 14 Jun 2018 TP05-0.0-0.2	SE180434.010 Soil 14 Jun 2018 TP05-0.65-0.8	SE180434.011 Soil 14 Jun 2018 TP06-0.0-0.2	SE180434.012 Soil 14 Jun 2018 TP06-0.6-0.8
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018						
TRH C10-C14	mg/kg	20	-	-	-	-
TRH C15-C28	mg/kg	45	-	-	-	-
TRH C29-C36	mg/kg	45	-	-	-	-
TRH C37-C40	mg/kg	100	-	-	-	-
TRH C10-C36 Total	mg/kg	110	-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	-	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	-	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	-	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	-	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	-	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	-	<0.8	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**100**	-	**104**	**100**
2-fluorobiphenyl (Surrogate)	%	-	**100**	-	**98**	**96**
d14-p-terphenyl (Surrogate)	%	-	**108**	-	**114**	**100**
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	<0.1	-
Alpha BHC	mg/kg	0.1	-	-	<0.1	-
Lindane	mg/kg	0.1	-	-	<0.1	-
Heptachlor	mg/kg	0.1	-	-	<0.1	-
Aldrin	mg/kg	0.1	-	-	<0.1	-
Beta BHC	mg/kg	0.1	-	-	<0.1	-
Delta BHC	mg/kg	0.1	-	-	<0.1	-
Heptachlor epoxide	mg/kg	0.1	-	-	<0.1	-
o,p'-DDE	mg/kg	0.1	-	-	<0.1	-
Alpha Endosulfan	mg/kg	0.2	-	-	<0.2	-
Gamma Chlordane	mg/kg	0.1	-	-	<0.1	-
Alpha Chlordane	mg/kg	0.1	-	-	<0.1	-
trans-Nonachlor	mg/kg	0.1	-	-	**0.1**	-
p,p'-DDE	mg/kg	0.1	-	-	**0.1**	-
Dieldrin	mg/kg	0.2	-	-	**0.2**	-
Endrin	mg/kg	0.2	-	-	<0.2	-

Parameter	Units	LOR	Sample Number: SE180434.009 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP05-0.0-0.2	SE180434.010 Soil 14 Jun 2018 TP05-0.65-0.8	SE180434.011 Soil 14 Jun 2018 TP06-0.0-0.2	SE180434.012 Soil 14 Jun 2018 TP06-0.6-0.8
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	<0.1	-
o,p'-DDT	mg/kg	0.1	-	-	<0.1	-
Beta Endosulfan	mg/kg	0.2	-	-	<0.2	-
p,p'-DDD	mg/kg	0.1	-	-	<0.1	-
p,p'-DDT	mg/kg	0.1	-	-	**0.3**	-
Endosulfan sulphate	mg/kg	0.1	-	-	<0.1	-
Endrin Aldehyde	mg/kg	0.1	-	-	<0.1	-
Methoxychlor	mg/kg	0.1	-	-	<0.1	-
Endrin Ketone	mg/kg	0.1	-	-	<0.1	-
Isodrin	mg/kg	0.1	-	-	<0.1	-
Mirex	mg/kg	0.1	-	-	<0.1	-
Total CLP OC Pesticides	mg/kg	1	-	-	<1	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	**102**	-
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018						
Arsenic, As	mg/kg	1	**4**	**5**	**3**	-
Cadmium, Cd	mg/kg	0.3	**0.4**	<0.3	**0.7**	-
Chromium, Cr	mg/kg	0.3	**9.3**	**18**	**9.4**	-
Copper, Cu	mg/kg	0.5	**4.6**	**3.8**	**5.6**	-
Nickel, Ni	mg/kg	0.5	**2.0**	<0.5	**3.2**	-
Lead, Pb	mg/kg	1	**6**	**15**	**7**	-
Zinc, Zn	mg/kg	2	**8.8**	**4.3**	**11**	-
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**2.7**	<0.05	**2.1**	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.009 Soil 14 Jun 2018 TP05-0.0-0.2	SE180434.010 Soil 14 Jun 2018 TP05-0.65-0.8	SE180434.011 Soil 14 Jun 2018 TP06-0.0-0.2	SE180434.012 Soil 14 Jun 2018 TP06-0.6-0.8
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**1.7**	**13**	**2.3**	**7.7**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.009 Soil 14 Jun 2018 TP05-0.0-0.2	SE180434.010 Soil 14 Jun 2018 TP05-0.65-0.8	SE180434.011 Soil 14 Jun 2018 TP06-0.0-0.2	SE180434.012 Soil 14 Jun 2018 TP06-0.6-0.8
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	Subcontracted	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.013 Soil 14 Jun 2018 TP07-0.0-0.2	SE180434.014 Soil 14 Jun 2018 TP07-0.7-0.9	SE180434.015 Soil 14 Jun 2018 TP08-0.0-0.2	SE180434.016 Soil 14 Jun 2018 TP08-0.8-1.0
VOC's in Soil Method: AN433 Tested: 19/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	-	<0.1	-
Toluene	mg/kg	0.1	<0.1	-	<0.1	-
Ethylbenzene	mg/kg	0.1	<0.1	-	<0.1	-
m/p-xylene	mg/kg	0.2	<0.2	-	<0.2	-
o-xylene	mg/kg	0.1	<0.1	-	<0.1	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**102**	-	**125**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	-	**105**	-
d8-toluene (Surrogate)	%	-	**82**	-	**94**	-
Bromofluorobenzene (Surrogate)	%	-	**73**	-	**80**	-
Totals						
Total Xylenes	mg/kg	0.3	<0.3	-	<0.3	-
Total BTEX	mg/kg	0.6	<0.6	-	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 19/6/2018						
TRH C6-C10	mg/kg	25	<25	-	<25	-
TRH C6-C9	mg/kg	20	<20	-	<20	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**102**	-	**125**	-
d4-1,2-dichloroethane (Surrogate)	%	-	**92**	-	**105**	-
d8-toluene (Surrogate)	%	-	**82**	-	**94**	-
Bromofluorobenzene (Surrogate)	%	-	**73**	-	**80**	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	-	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	-	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.013 Soil 14 Jun 2018 TP07-0.0-0.2	SE180434.014 Soil 14 Jun 2018 TP07-0.7-0.9	SE180434.015 Soil 14 Jun 2018 TP08-0.0-0.2	SE180434.016 Soil 14 Jun 2018 TP08-0.8-1.0
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018						
TRH C10-C14	mg/kg	20	<20	-	<20	-
TRH C15-C28	mg/kg	45	<45	-	<45	-
TRH C29-C36	mg/kg	45	<45	-	<45	-
TRH C37-C40	mg/kg	100	<100	-	<100	-
TRH C10-C36 Total	mg/kg	110	<110	-	<110	-
TRH C10-C40 Total (F bands)	mg/kg	210	<210	-	<210	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	<25	-	<25	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	-	<25	-
TRH >C16-C34 (F3)	mg/kg	90	<90	-	<90	-
TRH >C34-C40 (F4)	mg/kg	120	<120	-	<120	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018						
Naphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Fluoranthene	mg/kg	0.1	**0.1**	<0.1	-	<0.1
Pyrene	mg/kg	0.1	**0.1**	<0.1	-	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	<0.2	-	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<0.3	-	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	-	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	-	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	-	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**96**	**92**	-	**86**
2-fluorobiphenyl (Surrogate)	%	-	**96**	**94**	-	**92**
d14-p-terphenyl (Surrogate)	%	-	**116**	**104**	-	**96**
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.013 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP07-0.0-0.2	SE180434.014 Soil 14 Jun 2018 TP07-0.7-0.9	SE180434.015 Soil 14 Jun 2018 TP08-0.0-0.2	SE180434.016 Soil 14 Jun 2018 TP08-0.8-1.0
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	<0.2	-
Arochlor 1221	mg/kg	0.2	-	-	<0.2	-
Arochlor 1232	mg/kg	0.2	-	-	<0.2	-
Arochlor 1242	mg/kg	0.2	-	-	<0.2	-
Arochlor 1248	mg/kg	0.2	-	-	<0.2	-
Arochlor 1254	mg/kg	0.2	-	-	<0.2	-
Arochlor 1260	mg/kg	0.2	-	-	<0.2	-
Arochlor 1262	mg/kg	0.2	-	-	<0.2	-
Arochlor 1268	mg/kg	0.2	-	-	<0.2	-
Total PCBs (Arochlors)	mg/kg	1	-	-	<1	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	**103**	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018						
Arsenic, As	mg/kg	1	**5**	**3**	**4**	**3**
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.3	**9.4**	**7.1**	**11**	**12**
Copper, Cu	mg/kg	0.5	**8.7**	**3.2**	**45**	**4.3**
Nickel, Ni	mg/kg	0.5	**1.2**	<0.5	**1.7**	**1.5**
Lead, Pb	mg/kg	1	**38**	**10**	**51**	**20**
Zinc, Zn	mg/kg	2	**21**	**3.1**	**22**	**14**
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**0.09**	<0.05	**0.06**	<0.05

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.013 Soil 14 Jun 2018 TP07-0.0-0.2	SE180434.014 Soil 14 Jun 2018 TP07-0.7-0.9	SE180434.015 Soil 14 Jun 2018 TP08-0.0-0.2	SE180434.016 Soil 14 Jun 2018 TP08-0.8-1.0
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**11**	**13**	**14**	**9.0**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.013 Soil 14 Jun 2018 TP07-0.0-0.2	SE180434.014 Soil 14 Jun 2018 TP07-0.7-0.9	SE180434.015 Soil 14 Jun 2018 TP08-0.0-0.2	SE180434.016 Soil 14 Jun 2018 TP08-0.8-1.0
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)							
Polycyclic VOCs							
Naphthalene	µg/L	0.5		-	-	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	-
d8-toluene (Surrogate)	%	-		-	-	-	-
Bromofluorobenzene (Surrogate)	%	-		-	-	-	-
Totals							
Total Xylenes	µg/L	1.5		-	-	-	-
Total BTEX	µg/L	3		-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018							
Sample Subcontracted*	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.017 Soil 14 Jun 2018 TP08-1.0-1.2	SE180434.018 Soil 14 Jun 2018 TP09-0.0-0.2	SE180434.019 Soil 14 Jun 2018 TP09-0.6-0.8	SE180434.020 Soil 14 Jun 2018 TP10-0.0-0.2
VOC's in Soil Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		-	<0.1	-	-
Toluene	mg/kg	0.1		-	<0.1	-	-
Ethylbenzene	mg/kg	0.1		-	<0.1	-	-
m/p-xylene	mg/kg	0.2		-	<0.2	-	-
o-xylene	mg/kg	0.1		-	<0.1	-	-
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		-	<0.1	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	**103**	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	**93**	-	-
d8-toluene (Surrogate)	%	-		-	**81**	-	-
Bromofluorobenzene (Surrogate)	%	-		-	**75**	-	-
Totals							
Total Xylenes	mg/kg	0.3		-	<0.3	-	-
Total BTEX	mg/kg	0.6		-	<0.6	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018							
TRH C6-C10	mg/kg	25		-	<25	-	-
TRH C6-C9	mg/kg	20		-	<20	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	**103**	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	**93**	-	-
d8-toluene (Surrogate)	%	-		-	**81**	-	-
Bromofluorobenzene (Surrogate)	%	-		-	**75**	-	-
VPH F Bands							
Benzene (F0)	mg/kg	0.1		-	<0.1	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25		-	<25	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.017 Soil 14 Jun 2018 TP08-1.0-1.2	SE180434.018 Soil 14 Jun 2018 TP09-0.0-0.2	SE180434.019 Soil 14 Jun 2018 TP09-0.6-0.8	SE180434.020 Soil 14 Jun 2018 TP10-0.0-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018						
TRH C10-C14	mg/kg	20	-	<20	-	-
TRH C15-C28	mg/kg	45	-	<45	-	-
TRH C29-C36	mg/kg	45	-	<45	-	-
TRH C37-C40	mg/kg	100	-	<100	-	-
TRH C10-C36 Total	mg/kg	110	-	<110	-	-
TRH C10-C40 Total (F bands)	mg/kg	210	-	<210	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	-	<25	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	<25	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	<90	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	<120	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018						
Naphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Fluoranthene	mg/kg	0.1	<0.1	**0.3**	-	<0.1
Pyrene	mg/kg	0.1	<0.1	**0.3**	-	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	**0.2**	-	<0.1
Chrysene	mg/kg	0.1	<0.1	**0.2**	-	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	**0.2**	-	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	**0.1**	-	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	**0.2**	-	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	**0.1**	-	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	**0.1**	-	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	<0.2	**0.3**	-	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	**0.4**	-	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	**0.3**	-	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	**1.7**	-	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	**1.7**	-	<0.8
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**82**	**82**	-	**98**
2-fluorobiphenyl (Surrogate)	%	-	**88**	**92**	-	**102**
d14-p-terphenyl (Surrogate)	%	-	**92**	**102**	-	**116**
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.017 Soil 14 Jun 2018 TP08-1.0-1.2	SE180434.018 Soil 14 Jun 2018 TP09-0.0-0.2	SE180434.019 Soil 14 Jun 2018 TP09-0.6-0.8	SE180434.020 Soil 14 Jun 2018 TP10-0.0-0.2
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 20/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018							
Arsenic, As	mg/kg	1		**4**	**16**	**4**	**2**
Cadmium, Cd	mg/kg	0.3		<0.3	**0.7**	<0.3	<0.3
Chromium, Cr	mg/kg	0.3		**16**	**6.1**	**18**	**7.9**
Copper, Cu	mg/kg	0.5		**4.6**	**8.0**	**4.2**	**6.8**
Nickel, Ni	mg/kg	0.5		**0.7**	**3.1**	**0.7**	**2.5**
Lead, Pb	mg/kg	1		**42**	**60**	**13**	**8**
Zinc, Zn	mg/kg	2		**6.2**	**20**	**5.6**	**13**
Mercury in Soil Method: AN312 Tested: 20/6/2018							
Mercury	mg/kg	0.05		<0.05	**3.2**	<0.05	**1.3**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.017 Soil 14 Jun 2018 TP08-1.0-1.2	SE180434.018 Soil 14 Jun 2018 TP09-0.0-0.2	SE180434.019 Soil 14 Jun 2018 TP09-0.6-0.8	SE180434.020 Soil 14 Jun 2018 TP10-0.0-0.2
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**13**	**9.3**	**14**	**6.0**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.017 Soil 14 Jun 2018 TP08-1.0-1.2	SE180434.018 Soil 14 Jun 2018 TP09-0.0-0.2	SE180434.019 Soil 14 Jun 2018 TP09-0.6-0.8	SE180434.020 Soil 14 Jun 2018 TP10-0.0-0.2
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)							
Polycyclic VOCs							
Naphthalene	µg/L	0.5		-	-	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	-
d8-toluene (Surrogate)	%	-		-	-	-	-
Bromofluorobenzene (Surrogate)	%	-		-	-	-	-
Totals							
Total Xylenes	µg/L	1.5		-	-	-	-
Total BTEX	µg/L	3		-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018							
Sample Subcontracted*	No unit	-		-	-	-	Subcontracted

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.021 Soil 14 Jun 2018 TP10-0.5-0.7	SE180434.022 Soil 14 Jun 2018 TP11-0.0-0.2	SE180434.023 Soil 14 Jun 2018 TP11-0.5-0.7	SE180434.024 Soil 14 Jun 2018 TP12-0.5-0.7
VOC's in Soil Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		-	-	<0.1	-
Toluene	mg/kg	0.1		-	-	<0.1	-
Ethylbenzene	mg/kg	0.1		-	-	<0.1	-
m/p-xylene	mg/kg	0.2		-	-	<0.2	-
o-xylene	mg/kg	0.1		-	-	<0.1	-
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		-	-	<0.1	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	**126**	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	**107**	-
d8-toluene (Surrogate)	%	-		-	-	**94**	-
Bromofluorobenzene (Surrogate)	%	-		-	-	**80**	-
Totals							
Total Xylenes	mg/kg	0.3		-	-	<0.3	-
Total BTEX	mg/kg	0.6		-	-	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018							
TRH C6-C10	mg/kg	25		-	-	<25	-
TRH C6-C9	mg/kg	20		-	-	<20	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	**126**	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	**107**	-
d8-toluene (Surrogate)	%	-		-	-	**94**	-
Bromofluorobenzene (Surrogate)	%	-		-	-	**80**	-
VPH F Bands							
Benzene (F0)	mg/kg	0.1		-	-	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25		-	-	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.021 Soil 14 Jun 2018 TP10-0.5-0.7	SE180434.022 Soil 14 Jun 2018 TP11-0.0-0.2	SE180434.023 Soil 14 Jun 2018 TP11-0.5-0.7	SE180434.024 Soil 14 Jun 2018 TP12-0.5-0.7
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	<20	-
TRH C15-C28	mg/kg	45		-	-	<45	-
TRH C29-C36	mg/kg	45		-	-	<45	-
TRH C37-C40	mg/kg	100		-	-	<100	-
TRH C10-C36 Total	mg/kg	110		-	-	<110	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	<210	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	<25	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	<25	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	<90	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	<120	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1		-	-	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1		-	-	<0.1	<0.1
Acenaphthylene	mg/kg	0.1		-	-	<0.1	<0.1
Acenaphthene	mg/kg	0.1		-	-	<0.1	<0.1
Fluorene	mg/kg	0.1		-	-	<0.1	<0.1
Phenanthrene	mg/kg	0.1		-	-	<0.1	<0.1
Anthracene	mg/kg	0.1		-	-	<0.1	<0.1
Fluoranthene	mg/kg	0.1		-	-	<0.1	**0.2**
Pyrene	mg/kg	0.1		-	-	<0.1	**0.2**
Benzo(a)anthracene	mg/kg	0.1		-	-	<0.1	**0.1**
Chrysene	mg/kg	0.1		-	-	<0.1	**0.1**
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	<0.1	**0.2**
Benzo(k)fluoranthene	mg/kg	0.1		-	-	<0.1	**0.1**
Benzo(a)pyrene	mg/kg	0.1		-	-	<0.1	**0.2**
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	<0.1	**0.1**
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1		-	-	<0.1	**0.1**
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	<0.2	**0.3**
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	<0.3	**0.4**
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	<0.2	**0.3**
Total PAH (18)	mg/kg	0.8		-	-	<0.8	**1.4**
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	<0.8	**1.4**
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	**96**	**100**
2-fluorobiphenyl (Surrogate)	%	-		-	-	**100**	**100**
d14-p-terphenyl (Surrogate)	%	-		-	-	**116**	**106**
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	<0.1	<0.1
Alpha BHC	mg/kg	0.1		-	-	<0.1	<0.1
Lindane	mg/kg	0.1		-	-	<0.1	<0.1
Heptachlor	mg/kg	0.1		-	-	<0.1	<0.1
Aldrin	mg/kg	0.1		-	-	<0.1	<0.1
Beta BHC	mg/kg	0.1		-	-	<0.1	<0.1
Delta BHC	mg/kg	0.1		-	-	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1		-	-	**0.4**	<0.1
o,p'-DDE	mg/kg	0.1		-	-	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2		-	-	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1		-	-	**0.4**	<0.1
Alpha Chlordane	mg/kg	0.1		-	-	**0.2**	<0.1
trans-Nonachlor	mg/kg	0.1		-	-	**0.2**	<0.1
p,p'-DDE	mg/kg	0.1		-	-	<0.1	<0.1
Dieldrin	mg/kg	0.2		-	-	**0.7**	<0.2
Endrin	mg/kg	0.2		-	-	<0.2	<0.2

Parameter	Units	LOR	Sample Number: SE180434.021 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP10-0.5-0.7	SE180434.022 Soil 14 Jun 2018 TP11-0.0-0.2	SE180434.023 Soil 14 Jun 2018 TP11-0.5-0.7	SE180434.024 Soil 14 Jun 2018 TP12-0.5-0.7
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	<0.1	<0.1
o,p'-DDT	mg/kg	0.1	-	-	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	-	-	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	-	-	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	-	-	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	-	-	<0.1	<0.1
Endrin Aldehyde	mg/kg	0.1	-	-	<0.1	<0.1
Methoxychlor	mg/kg	0.1	-	-	<0.1	<0.1
Endrin Ketone	mg/kg	0.1	-	-	<0.1	<0.1
Isodrin	mg/kg	0.1	-	-	<0.1	<0.1
Mirex	mg/kg	0.1	-	-	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	-	-	**2**	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	**101**	**101**
PCBs in Soil Method: AN420 Tested: 22/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**2**	**2**	**2**	**10**
Cadmium, Cd	mg/kg	0.3	**0.4**	<0.3	**0.7**	**0.8**
Chromium, Cr	mg/kg	0.3	**8.4**	**4.8**	**12**	**12**
Copper, Cu	mg/kg	0.5	**6.8**	**5.5**	**5.3**	**31**
Nickel, Ni	mg/kg	0.5	**3.4**	**2.0**	**2.8**	**5.4**
Lead, Pb	mg/kg	1	**7**	**7**	**8**	**380**
Zinc, Zn	mg/kg	2	**18**	**10**	**22**	**380**
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**1.2**	**0.83**	**0.81**	**0.21**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.021 Soil 14 Jun 2018 TP10-0.5-0.7	SE180434.022 Soil 14 Jun 2018 TP11-0.0-0.2	SE180434.023 Soil 14 Jun 2018 TP11-0.5-0.7	SE180434.024 Soil 14 Jun 2018 TP12-0.5-0.7
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**7.9**	**3.4**	**5.6**	**25**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.021 Soil 14 Jun 2018 TP10-0.5-0.7	SE180434.022 Soil 14 Jun 2018 TP11-0.0-0.2	SE180434.023 Soil 14 Jun 2018 TP11-0.5-0.7	SE180434.024 Soil 14 Jun 2018 TP12-0.5-0.7
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)							
Polycyclic VOCs							
Naphthalene	µg/L	0.5		-	-	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	-
d8-toluene (Surrogate)	%	-		-	-	-	-
Bromofluorobenzene (Surrogate)	%	-		-	-	-	-
Totals							
Total Xylenes	µg/L	1.5		-	-	-	-
Total BTEX	µg/L	3		-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018							
Sample Subcontracted*	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.025 Soil 14 Jun 2018 TP12-0.9-1.1	SE180434.026 Soil 14 Jun 2018 TP13-0.0-0.2	SE180434.027 Soil 14 Jun 2018 TP13-0.45-0.55	SE180434.028 Soil 14 Jun 2018 TP14-0.0-0.2
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	<0.1	-
Toluene	mg/kg	0.1	-	-	<0.1	-
Ethylbenzene	mg/kg	0.1	-	-	<0.1	-
m/p-xylene	mg/kg	0.2	-	-	<0.2	-
o-xylene	mg/kg	0.1	-	-	<0.1	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	<0.1	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	**113**	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	**105**	-
d8-toluene (Surrogate)	%	-	-	-	**93**	-
Bromofluorobenzene (Surrogate)	%	-	-	-	**79**	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	<0.3	-
Total BTEX	mg/kg	0.6	-	-	<0.6	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	<25	-
TRH C6-C9	mg/kg	20	-	-	<20	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	**113**	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	**105**	-
d8-toluene (Surrogate)	%	-	-	-	**93**	-
Bromofluorobenzene (Surrogate)	%	-	-	-	**79**	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	<0.1	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	<25	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.025 Soil 14 Jun 2018 TP12-0.9-1.1	SE180434.026 Soil 14 Jun 2018 TP13-0.0-0.2	SE180434.027 Soil 14 Jun 2018 TP13-0.45-0.55	SE180434.028 Soil 14 Jun 2018 TP14-0.0-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	<20	-
TRH C15-C28	mg/kg	45		-	-	<45	-
TRH C29-C36	mg/kg	45		-	-	<45	-
TRH C37-C40	mg/kg	100		-	-	<100	-
TRH C10-C36 Total	mg/kg	110		-	-	<110	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	<210	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	<25	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	<25	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	<90	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	<120	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	<0.1	-
2-methylnaphthalene	mg/kg	0.1		-	-	<0.1	-
1-methylnaphthalene	mg/kg	0.1		-	-	<0.1	-
Acenaphthylene	mg/kg	0.1		-	-	<0.1	-
Acenaphthene	mg/kg	0.1		-	-	<0.1	-
Fluorene	mg/kg	0.1		-	-	<0.1	-
Phenanthrene	mg/kg	0.1		-	-	<0.1	-
Anthracene	mg/kg	0.1		-	-	<0.1	-
Fluoranthene	mg/kg	0.1		-	-	<0.1	-
Pyrene	mg/kg	0.1		-	-	<0.1	-
Benzo(a)anthracene	mg/kg	0.1		-	-	<0.1	-
Chrysene	mg/kg	0.1		-	-	<0.1	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	<0.1	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	<0.1	-
Benzo(a)pyrene	mg/kg	0.1		-	-	<0.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	<0.1	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	<0.1	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	<0.1	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	<0.2	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	<0.3	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	<0.2	-
Total PAH (18)	mg/kg	0.8		-	-	<0.8	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	<0.8	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	**98**	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	**100**	-
d14-p-terphenyl (Surrogate)	%	-		-	-	**106**	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.025 Soil 14 Jun 2018 TP12-0.9-1.1	SE180434.026 Soil 14 Jun 2018 TP13-0.0-0.2	SE180434.027 Soil 14 Jun 2018 TP13-0.45-0.55	SE180434.028 Soil 14 Jun 2018 TP14-0.0-0.2
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018							
Arsenic, As	mg/kg	1		**3**	**3**	-	-
Cadmium, Cd	mg/kg	0.3		<0.3	**0.4**	-	-
Chromium, Cr	mg/kg	0.3		**12**	**19**	-	-
Copper, Cu	mg/kg	0.5		**6.0**	**5.3**	-	-
Nickel, Ni	mg/kg	0.5		**3.1**	**2.0**	-	-
Lead, Pb	mg/kg	1		**13**	**8**	-	-
Zinc, Zn	mg/kg	2		**4.9**	**16**	-	-
Mercury in Soil Method: AN312 Tested: 20/6/2018							
Mercury	mg/kg	0.05		<0.05	**3.7**	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.025 Soil 14 Jun 2018 TP12-0.9-1.1	SE180434.026 Soil 14 Jun 2018 TP13-0.0-0.2	SE180434.027 Soil 14 Jun 2018 TP13-0.45-0.55	SE180434.028 Soil 14 Jun 2018 TP14-0.0-0.2
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**18**	**8.9**	**13**	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.025 Soil 14 Jun 2018 TP12-0.9-1.1	SE180434.026 Soil 14 Jun 2018 TP13-0.0-0.2	SE180434.027 Soil 14 Jun 2018 TP13-0.45-0.55	SE180434.028 Soil 14 Jun 2018 TP14-0.0-0.2
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	Subcontracted

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.029 Soil 14 Jun 2018 TP14-0.45-0.65	SE180434.030 Soil 14 Jun 2018 TP15-0.0-0.2	SE180434.031 Soil 14 Jun 2018 TP15-0.4-0.5	SE180434.032 Soil 14 Jun 2018 TP16-0.0-0.2
VOC's in Soil Method: AN433 Tested: 19/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	<0.1	-	-	<0.1
Toluene	mg/kg	0.1	<0.1	-	-	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	-	-	<0.1
m/p-xylene	mg/kg	0.2	<0.2	-	-	<0.2
o-xylene	mg/kg	0.1	<0.1	-	-	<0.1
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	<0.1	-	-	<0.1
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**125**	-	-	**119**
d4-1,2-dichloroethane (Surrogate)	%	-	**105**	-	-	**100**
d8-toluene (Surrogate)	%	-	**93**	-	-	**89**
Bromofluorobenzene (Surrogate)	%	-	**79**	-	-	**77**
Totals						
Total Xylenes	mg/kg	0.3	<0.3	-	-	<0.3
Total BTEX	mg/kg	0.6	<0.6	-	-	<0.6
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 19/6/2018						
TRH C6-C10	mg/kg	25	<25	-	-	<25
TRH C6-C9	mg/kg	20	<20	-	-	<20
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	**125**	-	-	**119**
d4-1,2-dichloroethane (Surrogate)	%	-	**105**	-	-	**100**
d8-toluene (Surrogate)	%	-	**93**	-	-	**89**
Bromofluorobenzene (Surrogate)	%	-	**79**	-	-	**77**
VPH F Bands						
Benzene (F0)	mg/kg	0.1	<0.1	-	-	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	-	-	<25

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.029 Soil 14 Jun 2018 TP14-0.45-0.65	SE180434.030 Soil 14 Jun 2018 TP15-0.0-0.2	SE180434.031 Soil 14 Jun 2018 TP15-0.4-0.5	SE180434.032 Soil 14 Jun 2018 TP16-0.0-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018						
TRH C10-C14	mg/kg	20	<20	-	-	<20
TRH C15-C28	mg/kg	45	<45	-	-	<45
TRH C29-C36	mg/kg	45	<45	-	-	<45
TRH C37-C40	mg/kg	100	<100	-	-	<100
TRH C10-C36 Total	mg/kg	110	<110	-	-	<110
TRH C10-C40 Total (F bands)	mg/kg	210	<210	-	-	<210
TRH F Bands						
TRH >C10-C16	mg/kg	25	<25	-	-	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	-	-	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	-	-	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	-	-	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018						
Naphthalene	mg/kg	0.1	<0.1	-	<0.1	-
2-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	-
1-methylnaphthalene	mg/kg	0.1	<0.1	-	<0.1	-
Acenaphthylene	mg/kg	0.1	<0.1	-	<0.1	-
Acenaphthene	mg/kg	0.1	<0.1	-	<0.1	-
Fluorene	mg/kg	0.1	<0.1	-	<0.1	-
Phenanthrene	mg/kg	0.1	**0.1**	-	<0.1	-
Anthracene	mg/kg	0.1	<0.1	-	<0.1	-
Fluoranthene	mg/kg	0.1	**0.2**	-	<0.1	-
Pyrene	mg/kg	0.1	**0.2**	-	<0.1	-
Benzo(a)anthracene	mg/kg	0.1	**0.2**	-	<0.1	-
Chrysene	mg/kg	0.1	**0.2**	-	<0.1	-
Benzo(b&j)fluoranthene	mg/kg	0.1	**0.3**	-	<0.1	-
Benzo(k)fluoranthene	mg/kg	0.1	**0.1**	-	<0.1	-
Benzo(a)pyrene	mg/kg	0.1	**0.2**	-	<0.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	**0.1**	-	<0.1	-
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	-	<0.1	-
Benzo(ghi)perylene	mg/kg	0.1	**0.1**	-	<0.1	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	**0.3**	-	<0.2	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	**0.4**	-	<0.3	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	**0.4**	-	<0.2	-
Total PAH (18)	mg/kg	0.8	**1.8**	-	<0.8	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8	**1.8**	-	<0.8	-
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	**106**	-	**102**	-
2-fluorobiphenyl (Surrogate)	%	-	**102**	-	**96**	-
d14-p-terphenyl (Surrogate)	%	-	**110**	-	**108**	-
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.029 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP14-0.45-0.65	SE180434.030 Soil 14 Jun 2018 TP15-0.0-0.2	SE180434.031 Soil 14 Jun 2018 TP15-0.4-0.5	SE180434.032 Soil 14 Jun 2018 TP16-0.0-0.2
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	<0.2	-
Arochlor 1221	mg/kg	0.2	-	-	<0.2	-
Arochlor 1232	mg/kg	0.2	-	-	<0.2	-
Arochlor 1242	mg/kg	0.2	-	-	<0.2	-
Arochlor 1248	mg/kg	0.2	-	-	<0.2	-
Arochlor 1254	mg/kg	0.2	-	-	<0.2	-
Arochlor 1260	mg/kg	0.2	-	-	<0.2	-
Arochlor 1262	mg/kg	0.2	-	-	<0.2	-
Arochlor 1268	mg/kg	0.2	-	-	<0.2	-
Total PCBs (Arochlors)	mg/kg	1	-	-	<1	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	**105**	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018						
Arsenic, As	mg/kg	1	-	**4**	-	-
Cadmium, Cd	mg/kg	0.3	-	**0.9**	-	-
Chromium, Cr	mg/kg	0.3	-	**12**	-	-
Copper, Cu	mg/kg	0.5	-	**6.2**	-	-
Nickel, Ni	mg/kg	0.5	-	**2.7**	-	-
Lead, Pb	mg/kg	1	-	**9**	-	-
Zinc, Zn	mg/kg	2	-	**17**	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018						
Mercury	mg/kg	0.05	-	**3.2**	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.029 Soil 14 Jun 2018 TP14-0.45-0.65	SE180434.030 Soil 14 Jun 2018 TP15-0.0-0.2	SE180434.031 Soil 14 Jun 2018 TP15-0.4-0.5	SE180434.032 Soil 14 Jun 2018 TP16-0.0-0.2
Moisture Content Method: AN002 Tested: 19/6/2018							
% Moisture	%w/w	0.5		**10**	**10**	**14**	**11**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
SemiQuant							
Estimated Fibres*	%w/w	0.01		-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018							
Total Sample Weight*	g	1		-	-	-	-
ACM in >7mm Sample*	g	0.01		-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001		-	-	-	-
AF/FA in <2mm Sample*	g	0.0001		-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01		-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001		-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001		-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001		-	-	-	-
Fibre Type*	No unit	-		-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	0.5		-	-	-	-
Toluene	µg/L	0.5		-	-	-	-
Ethylbenzene	µg/L	0.5		-	-	-	-
m/p-xylene	µg/L	1		-	-	-	-
o-xylene	µg/L	0.5		-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.029 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP14-0.45-0.65	SE180434.030 Soil 14 Jun 2018 TP15-0.0-0.2	SE180434.031 Soil 14 Jun 2018 TP15-0.4-0.5	SE180434.032 Soil 14 Jun 2018 TP16-0.0-0.2
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.033 Soil 14 Jun 2018 TP16-0.6-0.8	SE180434.034 Soil 14 Jun 2018 TP16-0.8-1.0	SE180434.035 Soil 14 Jun 2018 TP17-0.0-0.2	SE180434.036 Soil 14 Jun 2018 TP18-0.0-0.2
VOC's in Soil Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		-	-	-	<0.1
Toluene	mg/kg	0.1		-	-	-	<0.1
Ethylbenzene	mg/kg	0.1		-	-	-	<0.1
m/p-xylene	mg/kg	0.2		-	-	-	<0.2
o-xylene	mg/kg	0.1		-	-	-	<0.1
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		-	-	-	<0.1
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	**114**
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	**115**
d8-toluene (Surrogate)	%	-		-	-	-	**98**
Bromofluorobenzene (Surrogate)	%	-		-	-	-	**77**
Totals							
Total Xylenes	mg/kg	0.3		-	-	-	<0.3
Total BTEX	mg/kg	0.6		-	-	-	<0.6
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018							
TRH C6-C10	mg/kg	25		-	-	-	<25
TRH C6-C9	mg/kg	20		-	-	-	<20
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	**114**
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	**115**
d8-toluene (Surrogate)	%	-		-	-	-	**98**
Bromofluorobenzene (Surrogate)	%	-		-	-	-	**77**
VPH F Bands							
Benzene (F0)	mg/kg	0.1		-	-	-	<0.1
TRH C6-C10 minus BTEX (F1)	mg/kg	25		-	-	-	<25

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.033 Soil 14 Jun 2018 TP16-0.6-0.8	SE180434.034 Soil 14 Jun 2018 TP16-0.8-1.0	SE180434.035 Soil 14 Jun 2018 TP17-0.0-0.2	SE180434.036 Soil 14 Jun 2018 TP18-0.0-0.2
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 20/6/2018							
TRH C10-C14	mg/kg	20	-	-	-	-	<20
TRH C15-C28	mg/kg	45	-	-	-	-	<45
TRH C29-C36	mg/kg	45	-	-	-	-	<45
TRH C37-C40	mg/kg	100	-	-	-	-	<100
TRH C10-C36 Total	mg/kg	110	-	-	-	-	<110
TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-	<210
TRH F Bands							
TRH >C10-C16	mg/kg	25	-	-	-	-	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	-	-	-	<25
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-	<90
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-	<120
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 20/6/2018							
Naphthalene	mg/kg	0.1	-	<0.1	<0.1	<0.1	
2-methylnaphthalene	mg/kg	0.1	-	<0.1	<0.1	<0.1	
1-methylnaphthalene	mg/kg	0.1	-	<0.1	<0.1	<0.1	
Acenaphthylene	mg/kg	0.1	-	<0.1	<0.1	**0.2**	
Acenaphthene	mg/kg	0.1	-	<0.1	<0.1	<0.1	
Fluorene	mg/kg	0.1	-	<0.1	<0.1	**0.1**	
Phenanthrene	mg/kg	0.1	-	<0.1	**0.1**	**2.4**	
Anthracene	mg/kg	0.1	-	<0.1	<0.1	**0.3**	
Fluoranthene	mg/kg	0.1	-	<0.1	**0.3**	**4.2**	
Pyrene	mg/kg	0.1	-	<0.1	**0.2**	**3.7**	
Benzo(a)anthracene	mg/kg	0.1	-	<0.1	**0.1**	**1.2**	
Chrysene	mg/kg	0.1	-	<0.1	**0.1**	**1.2**	
Benzo(b&j)fluoranthene	mg/kg	0.1	-	<0.1	**0.2**	**1.8**	
Benzo(k)fluoranthene	mg/kg	0.1	-	<0.1	<0.1	**0.6**	
Benzo(a)pyrene	mg/kg	0.1	-	<0.1	**0.1**	**1.8**	
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	<0.1	<0.1	**1.4**	
Dibenzo(ah)anthracene	mg/kg	0.1	-	<0.1	<0.1	<0.1	
Benzo(ghi)perylene	mg/kg	0.1	-	<0.1	<0.1	**1.4**	
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	<0.2	<0.2	**2.3**	
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	<0.3	<0.3	**2.4**	
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	<0.2	<0.2	**2.4**	
Total PAH (18)	mg/kg	0.8	-	<0.8	**1.1**	**20**	
Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	<0.8	**1.1**	**20**	
Surrogates							
d5-nitrobenzene (Surrogate)	%	-	-	**104**	**102**	**96**	
2-fluorobiphenyl (Surrogate)	%	-	-	**100**	**96**	**92**	
d14-p-terphenyl (Surrogate)	%	-	-	**112**	**106**	**104**	
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	-	-	<0.1	
Alpha BHC	mg/kg	0.1	<0.1	-	-	<0.1	
Lindane	mg/kg	0.1	<0.1	-	-	<0.1	
Heptachlor	mg/kg	0.1	<0.1	-	-	<0.1	
Aldrin	mg/kg	0.1	<0.1	-	-	<0.1	
Beta BHC	mg/kg	0.1	<0.1	-	-	<0.1	
Delta BHC	mg/kg	0.1	<0.1	-	-	<0.1	
Heptachlor epoxide	mg/kg	0.1	<0.1	-	-	<0.1	
o,p'-DDE	mg/kg	0.1	<0.1	-	-	<0.1	
Alpha Endosulfan	mg/kg	0.2	<0.2	-	-	<0.2	
Gamma Chlordane	mg/kg	0.1	<0.1	-	-	<0.1	
Alpha Chlordane	mg/kg	0.1	<0.1	-	-	<0.1	
trans-Nonachlor	mg/kg	0.1	<0.1	-	-	**0.1**	
p,p'-DDE	mg/kg	0.1	<0.1	-	-	<0.1	
Dieldrin	mg/kg	0.2	<0.2	-	-	**0.2**	
Endrin	mg/kg	0.2	<0.2	-	-	<0.2	

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.033 Soil 14 Jun 2018 TP16-0.6-0.8	SE180434.034 Soil 14 Jun 2018 TP16-0.8-1.0	SE180434.035 Soil 14 Jun 2018 TP17-0.0-0.2	SE180434.036 Soil 14 Jun 2018 TP18-0.0-0.2
OC Pesticides in Soil Method: AN420 Tested: 20/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	<0.1	-	-	<0.1
o,p'-DDT	mg/kg	0.1	<0.1	-	-	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	-	-	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	-	-	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	-	-	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	-	-	<0.1
Endrin Aldehyde	mg/kg	0.1	<0.1	-	-	<0.1
Methoxychlor	mg/kg	0.1	<0.1	-	-	<0.1
Endrin Ketone	mg/kg	0.1	<0.1	-	-	<0.1
Isodrin	mg/kg	0.1	<0.1	-	-	<0.1
Mirex	mg/kg	0.1	<0.1	-	-	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	-	-	<1
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	**100**	-	-	**98**
PCBs in Soil Method: AN420 Tested: 20/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**31**	-	**4**	**17**
Cadmium, Cd	mg/kg	0.3	**1.0**	-	<0.3	**2.1**
Chromium, Cr	mg/kg	0.3	**9.8**	-	**7.1**	**14**
Copper, Cu	mg/kg	0.5	**39**	-	**10**	**13**
Nickel, Ni	mg/kg	0.5	**6.4**	-	**2.7**	**3.4**
Lead, Pb	mg/kg	1	**130**	-	**28**	**56**
Zinc, Zn	mg/kg	2	**84**	-	**33**	**47**
Mercury in Soil Method: AN312 Tested: 20/6/2018						
Mercury	mg/kg	0.05	**1.0**	-	**0.37**	**2.1**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.033 Soil 14 Jun 2018 TP16-0.6-0.8	SE180434.034 Soil 14 Jun 2018 TP16-0.8-1.0	SE180434.035 Soil 14 Jun 2018 TP17-0.0-0.2	SE180434.036 Soil 14 Jun 2018 TP18-0.0-0.2
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**12**	**17**	**13**	**15**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.033 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP16-0.6-0.8	SE180434.034 Soil 14 Jun 2018 TP16-0.8-1.0	SE180434.035 Soil 14 Jun 2018 TP17-0.0-0.2	SE180434.036 Soil 14 Jun 2018 TP18-0.0-0.2
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.037 Soil 14 Jun 2018 TP18-0.4-0.6	SE180434.038 Soil 14 Jun 2018 TP19-0.0-0.2	SE180434.039 Soil 14 Jun 2018 DUP-01	SE180434.040 Soil 14 Jun 2018 DUP-02
VOC's in Soil Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	0.1		-	<0.1	-	-
Toluene	mg/kg	0.1		-	<0.1	-	-
Ethylbenzene	mg/kg	0.1		-	<0.1	-	-
m/p-xylene	mg/kg	0.2		-	<0.2	-	-
o-xylene	mg/kg	0.1		-	<0.1	-	-
Polycyclic VOCs							
Naphthalene	mg/kg	0.1		-	<0.1	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	**97**	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	**96**	-	-
d8-toluene (Surrogate)	%	-		-	**85**	-	-
Bromofluorobenzene (Surrogate)	%	-		-	**73**	-	-
Totals							
Total Xylenes	mg/kg	0.3		-	<0.3	-	-
Total BTEX	mg/kg	0.6		-	<0.6	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018							
TRH C6-C10	mg/kg	25		-	<25	-	-
TRH C6-C9	mg/kg	20		-	<20	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	**97**	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	**96**	-	-
d8-toluene (Surrogate)	%	-		-	**85**	-	-
Bromofluorobenzene (Surrogate)	%	-		-	**73**	-	-
VPH F Bands							
Benzene (F0)	mg/kg	0.1		-	<0.1	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25		-	<25	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.037 Soil 14 Jun 2018 TP18-0.4-0.6	SE180434.038 Soil 14 Jun 2018 TP19-0.0-0.2	SE180434.039 Soil 14 Jun 2018 DUP-01	SE180434.040 Soil 14 Jun 2018 DUP-02
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	<20	-	-
TRH C15-C28	mg/kg	45		-	<45	-	-
TRH C29-C36	mg/kg	45		-	<45	-	-
TRH C37-C40	mg/kg	100		-	<100	-	-
TRH C10-C36 Total	mg/kg	110		-	<110	-	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	<210	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	<25	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	<25	-	-
TRH >C16-C34 (F3)	mg/kg	90		-	<90	-	-
TRH >C34-C40 (F4)	mg/kg	120		-	<120	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	-	-
2-methylnaphthalene	mg/kg	0.1		-	-	-	-
1-methylnaphthalene	mg/kg	0.1		-	-	-	-
Acenaphthylene	mg/kg	0.1		-	-	-	-
Acenaphthene	mg/kg	0.1		-	-	-	-
Fluorene	mg/kg	0.1		-	-	-	-
Phenanthrene	mg/kg	0.1		-	-	-	-
Anthracene	mg/kg	0.1		-	-	-	-
Fluoranthene	mg/kg	0.1		-	-	-	-
Pyrene	mg/kg	0.1		-	-	-	-
Benzo(a)anthracene	mg/kg	0.1		-	-	-	-
Chrysene	mg/kg	0.1		-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(a)pyrene	mg/kg	0.1		-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	<0.1	-	-
Alpha BHC	mg/kg	0.1		-	<0.1	-	-
Lindane	mg/kg	0.1		-	<0.1	-	-
Heptachlor	mg/kg	0.1		-	<0.1	-	-
Aldrin	mg/kg	0.1		-	<0.1	-	-
Beta BHC	mg/kg	0.1		-	<0.1	-	-
Delta BHC	mg/kg	0.1		-	<0.1	-	-
Heptachlor epoxide	mg/kg	0.1		-	<0.1	-	-
o,p'-DDE	mg/kg	0.1		-	<0.1	-	-
Alpha Endosulfan	mg/kg	0.2		-	<0.2	-	-
Gamma Chlordane	mg/kg	0.1		-	<0.1	-	-
Alpha Chlordane	mg/kg	0.1		-	<0.1	-	-
trans-Nonachlor	mg/kg	0.1		-	<0.1	-	-
p,p'-DDE	mg/kg	0.1		-	<0.1	-	-
Dieldrin	mg/kg	0.2		-	<0.2	-	-
Endrin	mg/kg	0.2		-	<0.2	-	-

Parameter	Units	LOR	Sample Number: SE180434.037 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP18-0.4-0.6	SE180434.038 Soil 14 Jun 2018 TP19-0.0-0.2	SE180434.039 Soil 14 Jun 2018 DUP-01	SE180434.040 Soil 14 Jun 2018 DUP-02
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	<0.1	-	-
o,p'-DDT	mg/kg	0.1	-	<0.1	-	-
Beta Endosulfan	mg/kg	0.2	-	<0.2	-	-
p,p'-DDD	mg/kg	0.1	-	<0.1	-	-
p,p'-DDT	mg/kg	0.1	-	<0.1	-	-
Endosulfan sulphate	mg/kg	0.1	-	<0.1	-	-
Endrin Aldehyde	mg/kg	0.1	-	<0.1	-	-
Methoxychlor	mg/kg	0.1	-	<0.1	-	-
Endrin Ketone	mg/kg	0.1	-	<0.1	-	-
Isodrin	mg/kg	0.1	-	<0.1	-	-
Mirex	mg/kg	0.1	-	<0.1	-	-
Total CLP OC Pesticides	mg/kg	1	-	<1	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	**100**	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**4**	**27**	**3**	**40**
Cadmium, Cd	mg/kg	0.3	<0.3	**2.1**	**0.7**	**5.9**
Chromium, Cr	mg/kg	0.3	**13**	**16**	**16**	**9.1**
Copper, Cu	mg/kg	0.5	**4.3**	**9.7**	**5.1**	**11**
Nickel, Ni	mg/kg	0.5	**3.3**	**2.3**	**2.2**	**4.1**
Lead, Pb	mg/kg	1	**14**	**67**	**7**	**180**
Zinc, Zn	mg/kg	2	**11**	**48**	**12**	**84**
Mercury in Soil Method: AN312 Tested: 21/6/2018						
Mercury	mg/kg	0.05	<0.05	**2.1**	**3.5**	**7.8**

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.037 Soil 14 Jun 2018 TP18-0.4-0.6	SE180434.038 Soil 14 Jun 2018 TP19-0.0-0.2	SE180434.039 Soil 14 Jun 2018 DUP-01	SE180434.040 Soil 14 Jun 2018 DUP-02
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**22**	**11**	**8.5**	**13**
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.037 Soil 14 Jun 2018 TP18-0.4-0.6	SE180434.038 Soil 14 Jun 2018 TP19-0.0-0.2	SE180434.039 Soil 14 Jun 2018 DUP-01	SE180434.040 Soil 14 Jun 2018 DUP-02
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	Subcontracted	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.041 Soil 14 Jun 2018 DUP-04	SE180434.042 Soil 14 Jun 2018 DUP-4A	SE180434.043 Water 14 Jun 2018 TRIP SPIKE	SE180434.044 Water 14 Jun 2018 TRIP BLANK
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.041 Soil 14 Jun 2018 DUP-04	SE180434.042 Soil 14 Jun 2018 DUP-4A	SE180434.043 Water 14 Jun 2018 TRIP SPIKE	SE180434.044 Water 14 Jun 2018 TRIP BLANK
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018						
TRH C10-C14	mg/kg	20	-	-	-	-
TRH C15-C28	mg/kg	45	-	-	-	-
TRH C29-C36	mg/kg	45	-	-	-	-
TRH C37-C40	mg/kg	100	-	-	-	-
TRH C10-C36 Total	mg/kg	110	-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018						
Naphthalene	mg/kg	0.1	-	-	-	-
2-methylnaphthalene	mg/kg	0.1	-	-	-	-
1-methylnaphthalene	mg/kg	0.1	-	-	-	-
Acenaphthylene	mg/kg	0.1	-	-	-	-
Acenaphthene	mg/kg	0.1	-	-	-	-
Fluorene	mg/kg	0.1	-	-	-	-
Phenanthrene	mg/kg	0.1	-	-	-	-
Anthracene	mg/kg	0.1	-	-	-	-
Fluoranthene	mg/kg	0.1	-	-	-	-
Pyrene	mg/kg	0.1	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	-	-	-	-
Chrysene	mg/kg	0.1	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	-
Total PAH (18)	mg/kg	0.8	-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-	-
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-	-	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.041 Soil 14 Jun 2018 DUP-04	SE180434.042 Soil 14 Jun 2018 DUP-4A	SE180434.043 Water 14 Jun 2018 TRIP SPIKE	SE180434.044 Water 14 Jun 2018 TRIP BLANK
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 20/6/2018						
Arsenic, As	mg/kg	1	**19**	-	-	-
Cadmium, Cd	mg/kg	0.3	**0.7**	-	-	-
Chromium, Cr	mg/kg	0.3	**6.0**	-	-	-
Copper, Cu	mg/kg	0.5	**7.5**	-	-	-
Nickel, Ni	mg/kg	0.5	**2.3**	-	-	-
Lead, Pb	mg/kg	1	**54**	-	-	-
Zinc, Zn	mg/kg	2	**17**	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018						
Mercury	mg/kg	0.05	**2.9**	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.041 Soil 14 Jun 2018 DUP-04	SE180434.042 Soil 14 Jun 2018 DUP-4A	SE180434.043 Water 14 Jun 2018 TRIP SPIKE	SE180434.044 Water 14 Jun 2018 TRIP BLANK
Moisture Content Method: AN002 Tested: 19/6/2018						
% Moisture	%w/w	0.5	**12**	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	-	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	-	-	-
ACM in >7mm Sample*	g	0.01	-	-	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	-	-	-
AF/FA in <2mm Sample*	g	0.0001	-	-	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	-	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	-	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	-	-	-
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	[109%]	<0.5
Toluene	µg/L	0.5	-	-	[97%]	<0.5
Ethylbenzene	µg/L	0.5	-	-	[113%]	<0.5
m/p-xylene	µg/L	1	-	-	[109%]	<1
o-xylene	µg/L	0.5	-	-	[107%]	<0.5

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.041 Soil 14 Jun 2018 DUP-04	SE180434.042 Soil 14 Jun 2018 DUP-4A	SE180434.043 Water 14 Jun 2018 TRIP SPIKE	SE180434.044 Water 14 Jun 2018 TRIP BLANK
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)							
Polycyclic VOCs							
Naphthalene	µg/L	0.5		-	-	-	<0.5
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	**96**	**84**
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	**92**	**77**
d8-toluene (Surrogate)	%	-		-	-	**88**	**75**
Bromofluorobenzene (Surrogate)	%	-		-	-	**117**	**84**
Totals							
Total Xylenes	µg/L	1.5		-	-	-	<1.5
Total BTEX	µg/L	3		-	-	-	<3
Sample Subcontracted Method: Tested: 29/6/2018							
Sample Subcontracted*	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Material Sample Date Sample Name SE180434.045 Soil 14 Jun 2018 FRAG-1	SE180434.046 Soil 14 Jun 2018 TP01-0.0-0.25	SE180434.047 Soil 14 Jun 2018 TP02-0.0-0.25	SE180434.048 Soil 14 Jun 2018 TP03-0.0-0.65
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.045 Sample Matrix: Material Sample Date: 14 Jun 2018 Sample Name: FRAG-1	SE180434.046 Soil 14 Jun 2018 TP01-0.0-0.25	SE180434.047 Soil 14 Jun 2018 TP02-0.0-0.25	SE180434.048 Soil 14 Jun 2018 TP03-0.0-0.65
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018						
TRH C10-C14	mg/kg	20	-	-	-	-
TRH C15-C28	mg/kg	45	-	-	-	-
TRH C29-C36	mg/kg	45	-	-	-	-
TRH C37-C40	mg/kg	100	-	-	-	-
TRH C10-C36 Total	mg/kg	110	-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-	-
TRH F Bands						
TRH >C10-C16	mg/kg	25	-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018						
Naphthalene	mg/kg	0.1	-	-	-	-
2-methylnaphthalene	mg/kg	0.1	-	-	-	-
1-methylnaphthalene	mg/kg	0.1	-	-	-	-
Acenaphthylene	mg/kg	0.1	-	-	-	-
Acenaphthene	mg/kg	0.1	-	-	-	-
Fluorene	mg/kg	0.1	-	-	-	-
Phenanthrene	mg/kg	0.1	-	-	-	-
Anthracene	mg/kg	0.1	-	-	-	-
Fluoranthene	mg/kg	0.1	-	-	-	-
Pyrene	mg/kg	0.1	-	-	-	-
Benzo(a)anthracene	mg/kg	0.1	-	-	-	-
Chrysene	mg/kg	0.1	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-	-
Benzo(a)pyrene	mg/kg	0.1	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-	-
Total PAH (18)	mg/kg	0.8	-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-	-
Surrogates						
d5-nitrobenzene (Surrogate)	%	-	-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-	-	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018						
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-	-
Lindane	mg/kg	0.1	-	-	-	-
Heptachlor	mg/kg	0.1	-	-	-	-
Aldrin	mg/kg	0.1	-	-	-	-
Beta BHC	mg/kg	0.1	-	-	-	-
Delta BHC	mg/kg	0.1	-	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-	-
Dieldrin	mg/kg	0.2	-	-	-	-
Endrin	mg/kg	0.2	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.045 Sample Matrix: Material Sample Date: 14 Jun 2018 Sample Name: FRAG-1	SE180434.046 Soil 14 Jun 2018 TP01-0.0-0.25	SE180434.047 Soil 14 Jun 2018 TP02-0.0-0.25	SE180434.048 Soil 14 Jun 2018 TP03-0.0-0.65
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)						
o,p'-DDD	mg/kg	0.1	-	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-	-
Isodrin	mg/kg	0.1	-	-	-	-
Mirex	mg/kg	0.1	-	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018						
Arochlor 1016	mg/kg	0.2	-	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-	-
Surrogates						
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018						
Arsenic, As	mg/kg	1	-	-	-	-
Cadmium, Cd	mg/kg	0.3	-	-	-	-
Chromium, Cr	mg/kg	0.3	-	-	-	-
Copper, Cu	mg/kg	0.5	-	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-	-
Lead, Pb	mg/kg	1	-	-	-	-
Zinc, Zn	mg/kg	2	-	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018						
Mercury	mg/kg	0.05	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.045 Material 14 Jun 2018 FRAG-1	SE180434.046 Soil 14 Jun 2018 TP01-0.0-0.25	SE180434.047 Soil 14 Jun 2018 TP02-0.0-0.25	SE180434.048 Soil 14 Jun 2018 TP03-0.0-0.65
Moisture Content Method: AN002 Tested: 20/6/2018						
% Moisture	%w/w	0.5	-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 21/6/2018						
FibreID						
Asbestos Detected	No unit	-	Yes	-	-	-
Fibre Identification in soil Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	No	No	No
SemiQuant						
Estimated Fibres*	%w/w	0.01	-	<0.01	<0.01	<0.01
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 22/6/2018						
Total Sample Weight*	g	1	-	**890**	**954**	**1022**
ACM in >7mm Sample*	g	0.01	-	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	-	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	-	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	-	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	-	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	-	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	-	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.045 Sample Matrix: Material Sample Date: 14 Jun 2018 Sample Name: FRAG-1	SE180434.046 Soil 14 Jun 2018 TP01-0.0-0.25	SE180434.047 Soil 14 Jun 2018 TP02-0.0-0.25	SE180434.048 Soil 14 Jun 2018 TP03-0.0-0.65
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.049 Soil 14 Jun 2018 TP04-0.0-0.6	SE180434.050 Soil 14 Jun 2018 TP05-0.0-0.65	SE180434.051 Soil 14 Jun 2018 TP06-0.0-0.6	SE180434.052 Soil 14 Jun 2018 TP07-0.0-0.7
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.049 Soil 14 Jun 2018 TP04-0.0-0.6	SE180434.050 Soil 14 Jun 2018 TP05-0.0-0.65	SE180434.051 Soil 14 Jun 2018 TP06-0.0-0.6	SE180434.052 Soil 14 Jun 2018 TP07-0.0-0.7
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	-	-
TRH C15-C28	mg/kg	45		-	-	-	-
TRH C29-C36	mg/kg	45		-	-	-	-
TRH C37-C40	mg/kg	100		-	-	-	-
TRH C10-C36 Total	mg/kg	110		-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	-	-
2-methylnaphthalene	mg/kg	0.1		-	-	-	-
1-methylnaphthalene	mg/kg	0.1		-	-	-	-
Acenaphthylene	mg/kg	0.1		-	-	-	-
Acenaphthene	mg/kg	0.1		-	-	-	-
Fluorene	mg/kg	0.1		-	-	-	-
Phenanthrene	mg/kg	0.1		-	-	-	-
Anthracene	mg/kg	0.1		-	-	-	-
Fluoranthene	mg/kg	0.1		-	-	-	-
Pyrene	mg/kg	0.1		-	-	-	-
Benzo(a)anthracene	mg/kg	0.1		-	-	-	-
Chrysene	mg/kg	0.1		-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(a)pyrene	mg/kg	0.1		-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.049 Soil 14 Jun 2018 TP04-0.0-0.6	SE180434.050 Soil 14 Jun 2018 TP05-0.0-0.65	SE180434.051 Soil 14 Jun 2018 TP06-0.0-0.6	SE180434.052 Soil 14 Jun 2018 TP07-0.0-0.7
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018							
Arsenic, As	mg/kg	1		-	-	-	-
Cadmium, Cd	mg/kg	0.3		-	-	-	-
Chromium, Cr	mg/kg	0.3		-	-	-	-
Copper, Cu	mg/kg	0.5		-	-	-	-
Nickel, Ni	mg/kg	0.5		-	-	-	-
Lead, Pb	mg/kg	1		-	-	-	-
Zinc, Zn	mg/kg	2		-	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018							
Mercury	mg/kg	0.05		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.049 Soil 14 Jun 2018 TP04-0.0-0.6	SE180434.050 Soil 14 Jun 2018 TP05-0.0-0.65	SE180434.051 Soil 14 Jun 2018 TP06-0.0-0.6	SE180434.052 Soil 14 Jun 2018 TP07-0.0-0.7
Moisture Content Method: AN002 Tested: 20/6/2018							
% Moisture	%w/w	0.5		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 20/6/2018							
FibreID							
Asbestos Detected	No unit	-		No	No	No	No
SemiQuant							
Estimated Fibres*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 20/6/2018							
Total Sample Weight*	g	1		**1173**	**1181**	**1281**	**994**
ACM in >7mm Sample*	g	0.01		<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-		-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	0.5		-	-	-	-
Toluene	µg/L	0.5		-	-	-	-
Ethylbenzene	µg/L	0.5		-	-	-	-
m/p-xylene	µg/L	1		-	-	-	-
o-xylene	µg/L	0.5		-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.049 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP04-0.0-0.6	SE180434.050 Soil 14 Jun 2018 TP05-0.0-0.65	SE180434.051 Soil 14 Jun 2018 TP06-0.0-0.6	SE180434.052 Soil 14 Jun 2018 TP07-0.0-0.7
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.053 Soil 14 Jun 2018 TP08-0.0-1.0	SE180434.054 Soil 14 Jun 2018 TP09-0.0-0.6	SE180434.055 Soil 14 Jun 2018 TP10-0.0-0.7	SE180434.056 Soil 14 Jun 2018 TP11-0.0-0.7
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.053 Soil 14 Jun 2018 TP08-0.0-1.0	SE180434.054 Soil 14 Jun 2018 TP09-0.0-0.6	SE180434.055 Soil 14 Jun 2018 TP10-0.0-0.7	SE180434.056 Soil 14 Jun 2018 TP11-0.0-0.7
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	-	-
TRH C15-C28	mg/kg	45		-	-	-	-
TRH C29-C36	mg/kg	45		-	-	-	-
TRH C37-C40	mg/kg	100		-	-	-	-
TRH C10-C36 Total	mg/kg	110		-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	-	-
2-methylnaphthalene	mg/kg	0.1		-	-	-	-
1-methylnaphthalene	mg/kg	0.1		-	-	-	-
Acenaphthylene	mg/kg	0.1		-	-	-	-
Acenaphthene	mg/kg	0.1		-	-	-	-
Fluorene	mg/kg	0.1		-	-	-	-
Phenanthrene	mg/kg	0.1		-	-	-	-
Anthracene	mg/kg	0.1		-	-	-	-
Fluoranthene	mg/kg	0.1		-	-	-	-
Pyrene	mg/kg	0.1		-	-	-	-
Benzo(a)anthracene	mg/kg	0.1		-	-	-	-
Chrysene	mg/kg	0.1		-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(a)pyrene	mg/kg	0.1		-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.053 Soil 14 Jun 2018 TP08-0.0-1.0	SE180434.054 Soil 14 Jun 2018 TP09-0.0-0.6	SE180434.055 Soil 14 Jun 2018 TP10-0.0-0.7	SE180434.056 Soil 14 Jun 2018 TP11-0.0-0.7
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018							
Arsenic, As	mg/kg	1		-	-	-	-
Cadmium, Cd	mg/kg	0.3		-	-	-	-
Chromium, Cr	mg/kg	0.3		-	-	-	-
Copper, Cu	mg/kg	0.5		-	-	-	-
Nickel, Ni	mg/kg	0.5		-	-	-	-
Lead, Pb	mg/kg	1		-	-	-	-
Zinc, Zn	mg/kg	2		-	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018							
Mercury	mg/kg	0.05		-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.053 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP08-0.0-1.0	SE180434.054 Soil 14 Jun 2018 TP09-0.0-0.6	SE180434.055 Soil 14 Jun 2018 TP10-0.0-0.7	SE180434.056 Soil 14 Jun 2018 TP11-0.0-0.7
Moisture Content Method: AN002 Tested: 20/6/2018						
% Moisture	%w/w	0.5	-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018						
FibreID						
Asbestos Detected	No unit	-	-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 20/6/2018						
FibreID						
Asbestos Detected	No unit	-	No	No	No	No
SemiQuant						
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 20/6/2018						
Total Sample Weight*	g	1	**823**	**1006**	**1127**	**1043**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	µg/L	0.5	-	-	-	-
Toluene	µg/L	0.5	-	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-	-
m/p-xylene	µg/L	1	-	-	-	-
o-xylene	µg/L	0.5	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.053 Soil 14 Jun 2018 TP08-0.0-1.0	SE180434.054 Soil 14 Jun 2018 TP09-0.0-0.6	SE180434.055 Soil 14 Jun 2018 TP10-0.0-0.7	SE180434.056 Soil 14 Jun 2018 TP11-0.0-0.7
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.057 Soil 14 Jun 2018 TP12-0.0-0.9	SE180434.058 Soil 14 Jun 2018 TP13-0.0-0.55	SE180434.059 Soil 14 Jun 2018 TP14-0.0-0.45	SE180434.060 Soil 14 Jun 2018 TP14-0.45-0.6
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.057 Soil 14 Jun 2018 TP12-0.0-0.9	SE180434.058 Soil 14 Jun 2018 TP13-0.0-0.55	SE180434.059 Soil 14 Jun 2018 TP14-0.0-0.45	SE180434.060 Soil 14 Jun 2018 TP14-0.45-0.6
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	-	-
TRH C15-C28	mg/kg	45		-	-	-	-
TRH C29-C36	mg/kg	45		-	-	-	-
TRH C37-C40	mg/kg	100		-	-	-	-
TRH C10-C36 Total	mg/kg	110		-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	-	-
2-methylnaphthalene	mg/kg	0.1		-	-	-	-
1-methylnaphthalene	mg/kg	0.1		-	-	-	-
Acenaphthylene	mg/kg	0.1		-	-	-	-
Acenaphthene	mg/kg	0.1		-	-	-	-
Fluorene	mg/kg	0.1		-	-	-	-
Phenanthrene	mg/kg	0.1		-	-	-	-
Anthracene	mg/kg	0.1		-	-	-	-
Fluoranthene	mg/kg	0.1		-	-	-	-
Pyrene	mg/kg	0.1		-	-	-	-
Benzo(a)anthracene	mg/kg	0.1		-	-	-	-
Chrysene	mg/kg	0.1		-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(a)pyrene	mg/kg	0.1		-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.057 Soil 14 Jun 2018 TP12-0.0-0.9	SE180434.058 Soil 14 Jun 2018 TP13-0.0-0.55	SE180434.059 Soil 14 Jun 2018 TP14-0.0-0.45	SE180434.060 Soil 14 Jun 2018 TP14-0.45-0.6
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018							
Arsenic, As	mg/kg	1		-	-	-	-
Cadmium, Cd	mg/kg	0.3		-	-	-	-
Chromium, Cr	mg/kg	0.3		-	-	-	-
Copper, Cu	mg/kg	0.5		-	-	-	-
Nickel, Ni	mg/kg	0.5		-	-	-	-
Lead, Pb	mg/kg	1		-	-	-	-
Zinc, Zn	mg/kg	2		-	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018							
Mercury	mg/kg	0.05		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.057 Soil 14 Jun 2018 TP12-0.0-0.9	SE180434.058 Soil 14 Jun 2018 TP13-0.0-0.55	SE180434.059 Soil 14 Jun 2018 TP14-0.0-0.45	SE180434.060 Soil 14 Jun 2018 TP14-0.45-0.6
Moisture Content Method: AN002 Tested: 20/6/2018							
% Moisture	%w/w	0.5		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 20/6/2018							
FibreID							
Asbestos Detected	No unit	-		No	No	No	No
SemiQuant							
Estimated Fibres*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 20/6/2018							
Total Sample Weight*	g	1		**973**	**864**	**1130**	**961**
ACM in >7mm Sample*	g	0.01		<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-		-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	0.5		-	-	-	-
Toluene	µg/L	0.5		-	-	-	-
Ethylbenzene	µg/L	0.5		-	-	-	-
m/p-xylene	µg/L	1		-	-	-	-
o-xylene	µg/L	0.5		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.057 Soil 14 Jun 2018 TP12-0.0-0.9	SE180434.058 Soil 14 Jun 2018 TP13-0.0-0.55	SE180434.059 Soil 14 Jun 2018 TP14-0.0-0.45	SE180434.060 Soil 14 Jun 2018 TP14-0.45-0.6
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)						
Polycyclic VOCs						
Naphthalene	µg/L	0.5	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	µg/L	1.5	-	-	-	-
Total BTEX	µg/L	3	-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018						
Sample Subcontracted*	No unit	-	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.061 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP15-0.0-0.5	SE180434.062 Soil 14 Jun 2018 TP16-0.0-0.8	SE180434.063 Soil 14 Jun 2018 TP17-0.0-0.9	SE180434.064 Soil 14 Jun 2018 TP18-0.0-0.4
VOC's in Soil Method: AN433 Tested: 21/6/2018						
Monocyclic Aromatic Hydrocarbons						
Benzene	mg/kg	0.1	-	-	-	-
Toluene	mg/kg	0.1	-	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-	-
o-xylene	mg/kg	0.1	-	-	-	-
Polycyclic VOCs						
Naphthalene	mg/kg	0.1	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
Totals						
Total Xylenes	mg/kg	0.3	-	-	-	-
Total BTEX	mg/kg	0.6	-	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018						
TRH C6-C10	mg/kg	25	-	-	-	-
TRH C6-C9	mg/kg	20	-	-	-	-
Surrogates						
Dibromofluoromethane (Surrogate)	%	-	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-	-
VPH F Bands						
Benzene (F0)	mg/kg	0.1	-	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.061 Soil 14 Jun 2018 TP15-0.0-0.5	SE180434.062 Soil 14 Jun 2018 TP16-0.0-0.8	SE180434.063 Soil 14 Jun 2018 TP17-0.0-0.9	SE180434.064 Soil 14 Jun 2018 TP18-0.0-0.4
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018							
TRH C10-C14	mg/kg	20		-	-	-	-
TRH C15-C28	mg/kg	45		-	-	-	-
TRH C29-C36	mg/kg	45		-	-	-	-
TRH C37-C40	mg/kg	100		-	-	-	-
TRH C10-C36 Total	mg/kg	110		-	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210		-	-	-	-
TRH F Bands							
TRH >C10-C16	mg/kg	25		-	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25		-	-	-	-
TRH >C16-C34 (F3)	mg/kg	90		-	-	-	-
TRH >C34-C40 (F4)	mg/kg	120		-	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018							
Naphthalene	mg/kg	0.1		-	-	-	-
2-methylnaphthalene	mg/kg	0.1		-	-	-	-
1-methylnaphthalene	mg/kg	0.1		-	-	-	-
Acenaphthylene	mg/kg	0.1		-	-	-	-
Acenaphthene	mg/kg	0.1		-	-	-	-
Fluorene	mg/kg	0.1		-	-	-	-
Phenanthrene	mg/kg	0.1		-	-	-	-
Anthracene	mg/kg	0.1		-	-	-	-
Fluoranthene	mg/kg	0.1		-	-	-	-
Pyrene	mg/kg	0.1		-	-	-	-
Benzo(a)anthracene	mg/kg	0.1		-	-	-	-
Chrysene	mg/kg	0.1		-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1		-	-	-	-
Benzo(a)pyrene	mg/kg	0.1		-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1		-	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1		-	-	-	-
Benzo(ghi)perylene	mg/kg	0.1		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3		-	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2		-	-	-	-
Total PAH (18)	mg/kg	0.8		-	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8		-	-	-	-
Surrogates							
d5-nitrobenzene (Surrogate)	%	-		-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-		-	-	-	-
d14-p-terphenyl (Surrogate)	%	-		-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018							
Hexachlorobenzene (HCB)	mg/kg	0.1		-	-	-	-
Alpha BHC	mg/kg	0.1		-	-	-	-
Lindane	mg/kg	0.1		-	-	-	-
Heptachlor	mg/kg	0.1		-	-	-	-
Aldrin	mg/kg	0.1		-	-	-	-
Beta BHC	mg/kg	0.1		-	-	-	-
Delta BHC	mg/kg	0.1		-	-	-	-
Heptachlor epoxide	mg/kg	0.1		-	-	-	-
o,p'-DDE	mg/kg	0.1		-	-	-	-
Alpha Endosulfan	mg/kg	0.2		-	-	-	-
Gamma Chlordane	mg/kg	0.1		-	-	-	-
Alpha Chlordane	mg/kg	0.1		-	-	-	-
trans-Nonachlor	mg/kg	0.1		-	-	-	-
p,p'-DDE	mg/kg	0.1		-	-	-	-
Dieldrin	mg/kg	0.2		-	-	-	-
Endrin	mg/kg	0.2		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.061 Soil 14 Jun 2018 TP15-0.0-0.5	SE180434.062 Soil 14 Jun 2018 TP16-0.0-0.8	SE180434.063 Soil 14 Jun 2018 TP17-0.0-0.9	SE180434.064 Soil 14 Jun 2018 TP18-0.0-0.4
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)							
o,p'-DDD	mg/kg	0.1		-	-	-	-
o,p'-DDT	mg/kg	0.1		-	-	-	-
Beta Endosulfan	mg/kg	0.2		-	-	-	-
p,p'-DDD	mg/kg	0.1		-	-	-	-
p,p'-DDT	mg/kg	0.1		-	-	-	-
Endosulfan sulphate	mg/kg	0.1		-	-	-	-
Endrin Aldehyde	mg/kg	0.1		-	-	-	-
Methoxychlor	mg/kg	0.1		-	-	-	-
Endrin Ketone	mg/kg	0.1		-	-	-	-
Isodrin	mg/kg	0.1		-	-	-	-
Mirex	mg/kg	0.1		-	-	-	-
Total CLP OC Pesticides	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018							
Arochlor 1016	mg/kg	0.2		-	-	-	-
Arochlor 1221	mg/kg	0.2		-	-	-	-
Arochlor 1232	mg/kg	0.2		-	-	-	-
Arochlor 1242	mg/kg	0.2		-	-	-	-
Arochlor 1248	mg/kg	0.2		-	-	-	-
Arochlor 1254	mg/kg	0.2		-	-	-	-
Arochlor 1260	mg/kg	0.2		-	-	-	-
Arochlor 1262	mg/kg	0.2		-	-	-	-
Arochlor 1268	mg/kg	0.2		-	-	-	-
Total PCBs (Arochlors)	mg/kg	1		-	-	-	-
Surrogates							
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-		-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018							
Arsenic, As	mg/kg	1		-	-	-	-
Cadmium, Cd	mg/kg	0.3		-	-	-	-
Chromium, Cr	mg/kg	0.3		-	-	-	-
Copper, Cu	mg/kg	0.5		-	-	-	-
Nickel, Ni	mg/kg	0.5		-	-	-	-
Lead, Pb	mg/kg	1		-	-	-	-
Zinc, Zn	mg/kg	2		-	-	-	-
Mercury in Soil Method: AN312 Tested: 21/6/2018							
Mercury	mg/kg	0.05		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.061 Soil 14 Jun 2018 TP15-0.0-0.5	SE180434.062 Soil 14 Jun 2018 TP16-0.0-0.8	SE180434.063 Soil 14 Jun 2018 TP17-0.0-0.9	SE180434.064 Soil 14 Jun 2018 TP18-0.0-0.4
Moisture Content Method: AN002 Tested: 20/6/2018							
% Moisture	%w/w	0.5		-	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018							
FibreID							
Asbestos Detected	No unit	-		-	-	-	-
Fibre Identification in soil Method: AN602 Tested: 20/6/2018							
FibreID							
Asbestos Detected	No unit	-		No	No	No	No
SemiQuant							
Estimated Fibres*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 20/6/2018							
Total Sample Weight*	g	1		**793**	**1033**	**1025**	**701**
ACM in >7mm Sample*	g	0.01		<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001		<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01		<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001		<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-		-	-	-	-
VOCs in Water Method: AN433 Tested: 21/6/2018							
Monocyclic Aromatic Hydrocarbons							
Benzene	µg/L	0.5		-	-	-	-
Toluene	µg/L	0.5		-	-	-	-
Ethylbenzene	µg/L	0.5		-	-	-	-
m/p-xylene	µg/L	1		-	-	-	-
o-xylene	µg/L	0.5		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	SE180434.061 Soil 14 Jun 2018 TP15-0.0-0.5	SE180434.062 Soil 14 Jun 2018 TP16-0.0-0.8	SE180434.063 Soil 14 Jun 2018 TP17-0.0-0.9	SE180434.064 Soil 14 Jun 2018 TP18-0.0-0.4
VOCs in Water Method: AN433 Tested: 21/6/2018 (continued)							
Polycyclic VOCs							
Naphthalene	µg/L	0.5		-	-	-	-
Surrogates							
Dibromofluoromethane (Surrogate)	%	-		-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-		-	-	-	-
d8-toluene (Surrogate)	%	-		-	-	-	-
Bromofluorobenzene (Surrogate)	%	-		-	-	-	-
Totals							
Total Xylenes	µg/L	1.5		-	-	-	-
Total BTEX	µg/L	3		-	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018							
Sample Subcontracted*	No unit	-		-	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.065 Soil 14 Jun 2018 TP19-0.0-0.3	SE180434.066 Material 14 Jun 2018 TP16-FRAG 1	SE180434.067 Material 14 Jun 2018 TP17-FRAG 1
VOC's in Soil Method: AN433 Tested: 21/6/2018					
Monocyclic Aromatic Hydrocarbons					
Benzene	mg/kg	0.1	-	-	-
Toluene	mg/kg	0.1	-	-	-
Ethylbenzene	mg/kg	0.1	-	-	-
m/p-xylene	mg/kg	0.2	-	-	-
o-xylene	mg/kg	0.1	-	-	-
Polycyclic VOCs					
Naphthalene	mg/kg	0.1	-	-	-
Surrogates					
Dibromofluoromethane (Surrogate)	%	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-
Totals					
Total Xylenes	mg/kg	0.3	-	-	-
Total BTEX	mg/kg	0.6	-	-	-
Volatile Petroleum Hydrocarbons in Soil Method: AN433 Tested: 21/6/2018					
TRH C6-C10	mg/kg	25	-	-	-
TRH C6-C9	mg/kg	20	-	-	-
Surrogates					
Dibromofluoromethane (Surrogate)	%	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-
VPH F Bands					
Benzene (F0)	mg/kg	0.1	-	-	-
TRH C6-C10 minus BTEX (F1)	mg/kg	25	-	-	-

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name SE180434.065 Soil 14 Jun 2018 TP19-0.0-0.3	SE180434.066 Material 14 Jun 2018 TP16-FRAG 1	SE180434.067 Material 14 Jun 2018 TP17-FRAG 1
TRH (Total Recoverable Hydrocarbons) in Soil Method: AN403 Tested: 22/6/2018					
TRH C10-C14	mg/kg	20	-	-	-
TRH C15-C28	mg/kg	45	-	-	-
TRH C29-C36	mg/kg	45	-	-	-
TRH C37-C40	mg/kg	100	-	-	-
TRH C10-C36 Total	mg/kg	110	-	-	-
TRH C10-C40 Total (F bands)	mg/kg	210	-	-	-
TRH F Bands					
TRH >C10-C16	mg/kg	25	-	-	-
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	-	-	-
TRH >C16-C34 (F3)	mg/kg	90	-	-	-
TRH >C34-C40 (F4)	mg/kg	120	-	-	-
PAH (Polynuclear Aromatic Hydrocarbons) in Soil Method: AN420 Tested: 25/6/2018					
Naphthalene	mg/kg	0.1	-	-	-
2-methylnaphthalene	mg/kg	0.1	-	-	-
1-methylnaphthalene	mg/kg	0.1	-	-	-
Acenaphthylene	mg/kg	0.1	-	-	-
Acenaphthene	mg/kg	0.1	-	-	-
Fluorene	mg/kg	0.1	-	-	-
Phenanthrene	mg/kg	0.1	-	-	-
Anthracene	mg/kg	0.1	-	-	-
Fluoranthene	mg/kg	0.1	-	-	-
Pyrene	mg/kg	0.1	-	-	-
Benzo(a)anthracene	mg/kg	0.1	-	-	-
Chrysene	mg/kg	0.1	-	-	-
Benzo(b&j)fluoranthene	mg/kg	0.1	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	-	-	-
Benzo(a)pyrene	mg/kg	0.1	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	-	-	-
Dibenzo(ah)anthracene	mg/kg	0.1	-	-	-
Benzo(ghi)perylene	mg/kg	0.1	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	-	-	-
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	-	-	-
Total PAH (18)	mg/kg	0.8	-	-	-
Total PAH (NEPM/WHO 16)	mg/kg	0.8	-	-	-
Surrogates					
d5-nitrobenzene (Surrogate)	%	-	-	-	-
2-fluorobiphenyl (Surrogate)	%	-	-	-	-
d14-p-terphenyl (Surrogate)	%	-	-	-	-
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018					
Hexachlorobenzene (HCB)	mg/kg	0.1	-	-	-
Alpha BHC	mg/kg	0.1	-	-	-
Lindane	mg/kg	0.1	-	-	-
Heptachlor	mg/kg	0.1	-	-	-
Aldrin	mg/kg	0.1	-	-	-
Beta BHC	mg/kg	0.1	-	-	-
Delta BHC	mg/kg	0.1	-	-	-
Heptachlor epoxide	mg/kg	0.1	-	-	-
o,p'-DDE	mg/kg	0.1	-	-	-
Alpha Endosulfan	mg/kg	0.2	-	-	-
Gamma Chlordane	mg/kg	0.1	-	-	-
Alpha Chlordane	mg/kg	0.1	-	-	-
trans-Nonachlor	mg/kg	0.1	-	-	-
p,p'-DDE	mg/kg	0.1	-	-	-
Dieldrin	mg/kg	0.2	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.065 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP19-0.0-0.3	SE180434.066 Material 14 Jun 2018 TP16-FRAG 1	SE180434.067 Material 14 Jun 2018 TP17-FRAG 1
OC Pesticides in Soil Method: AN420 Tested: 22/6/2018 (continued)					
Endrin	mg/kg	0.2	-	-	-
o,p'-DDD	mg/kg	0.1	-	-	-
o,p'-DDT	mg/kg	0.1	-	-	-
Beta Endosulfan	mg/kg	0.2	-	-	-
p,p'-DDD	mg/kg	0.1	-	-	-
p,p'-DDT	mg/kg	0.1	-	-	-
Endosulfan sulphate	mg/kg	0.1	-	-	-
Endrin Aldehyde	mg/kg	0.1	-	-	-
Methoxychlor	mg/kg	0.1	-	-	-
Endrin Ketone	mg/kg	0.1	-	-	-
Isodrin	mg/kg	0.1	-	-	-
Mirex	mg/kg	0.1	-	-	-
Total CLP OC Pesticides	mg/kg	1	-	-	-
Surrogates					
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-
PCBs in Soil Method: AN420 Tested: 22/6/2018					
Arochlor 1016	mg/kg	0.2	-	-	-
Arochlor 1221	mg/kg	0.2	-	-	-
Arochlor 1232	mg/kg	0.2	-	-	-
Arochlor 1242	mg/kg	0.2	-	-	-
Arochlor 1248	mg/kg	0.2	-	-	-
Arochlor 1254	mg/kg	0.2	-	-	-
Arochlor 1260	mg/kg	0.2	-	-	-
Arochlor 1262	mg/kg	0.2	-	-	-
Arochlor 1268	mg/kg	0.2	-	-	-
Total PCBs (Arochlors)	mg/kg	1	-	-	-
Surrogates					
Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	-	-	-
Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES Method: AN040/AN320 Tested: 21/6/2018					
Arsenic, As	mg/kg	1	-	-	-
Cadmium, Cd	mg/kg	0.3	-	-	-
Chromium, Cr	mg/kg	0.3	-	-	-
Copper, Cu	mg/kg	0.5	-	-	-
Nickel, Ni	mg/kg	0.5	-	-	-
Lead, Pb	mg/kg	1	-	-	-
Zinc, Zn	mg/kg	2	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.065 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP19-0.0-0.3	SE180434.066 Material 14 Jun 2018 TP16-FRAG 1	SE180434.067 Material 14 Jun 2018 TP17-FRAG 1
Mercury in Soil Method: AN312 Tested: 21/6/2018					
Mercury	mg/kg	0.05	-	-	-
Moisture Content Method: AN002 Tested: 20/6/2018					
% Moisture	%w/w	0.5	-	-	-
Fibre ID in bulk materials Method: AN602 Tested: 22/6/2018					
FibreID					
Asbestos Detected	No unit	-	-	Yes	Yes
Fibre Identification in soil Method: AN602 Tested: 20/6/2018					
FibreID					
Asbestos Detected	No unit	-	No	-	-
SemiQuant					
Estimated Fibres*	%w/w	0.01	<0.01	-	-
Gravimetric Determination of Asbestos in Soil Method: AN605 Tested: 20/6/2018					
Total Sample Weight*	g	1	**1049**	-	-
ACM in >7mm Sample*	g	0.01	<0.01	-	-
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	-	-
AF/FA in <2mm Sample*	g	0.0001	<0.0001	-	-
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	-	-
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	-	-
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	-	-
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	-	-
Fibre Type*	No unit	-	-	-	-

Parameter	Units	LOR	Sample Number: SE180434.065 Sample Matrix: Soil Sample Date: 14 Jun 2018 Sample Name: TP19-0.0-0.3	SE180434.066 Material 14 Jun 2018 TP16-FRAG 1	SE180434.067 Material 14 Jun 2018 TP17-FRAG 1
VOCs in Water Method: AN433 Tested: 21/6/2018					
Monocyclic Aromatic Hydrocarbons					
Benzene	µg/L	0.5	-	-	-
Toluene	µg/L	0.5	-	-	-
Ethylbenzene	µg/L	0.5	-	-	-
m/p-xylene	µg/L	1	-	-	-
o-xylene	µg/L	0.5	-	-	-
Polycyclic VOCs					
Naphthalene	µg/L	0.5	-	-	-
Surrogates					
Dibromofluoromethane (Surrogate)	%	-	-	-	-
d4-1,2-dichloroethane (Surrogate)	%	-	-	-	-
d8-toluene (Surrogate)	%	-	-	-	-
Bromofluorobenzene (Surrogate)	%	-	-	-	-
Totals					
Total Xylenes	µg/L	1.5	-	-	-
Total BTEX	µg/L	3	-	-	-
Sample Subcontracted Method: Tested: 29/6/2018					
Sample Subcontracted*	No unit	-	-	-	-

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Mercury in Soil **Method: ME-(AU)-[ENV]AN312**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Mercury	LB150340	mg/kg	0.05	<0.05	0%	110%	98%
	LB150341	mg/kg	0.05	<0.05	0 - 10%	89%	
	LB150402	mg/kg	0.05	<0.05	9 - 14%	111%	89%

Moisture Content **Method: ME-(AU)-[ENV]AN002**

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB150251	%w/w	0.5	7 - 13%

OC Pesticides in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Hexachlorobenzene (HCB)	LB150305	mg/kg	0.1	<0.1	0%	NA
Alpha BHC	LB150305	mg/kg	0.1	<0.1	0%	NA
Lindane	LB150305	mg/kg	0.1	<0.1	0%	NA
Heptachlor	LB150305	mg/kg	0.1	<0.1	0%	117%
Aldrin	LB150305	mg/kg	0.1	<0.1	0%	115%
Beta BHC	LB150305	mg/kg	0.1	<0.1	0%	NA
Delta BHC	LB150305	mg/kg	0.1	<0.1	0%	114%
Heptachlor epoxide	LB150305	mg/kg	0.1	<0.1	0%	NA
o,p'-DDE	LB150305	mg/kg	0.1	<0.1	0%	NA
Alpha Endosulfan	LB150305	mg/kg	0.2	<0.2	0%	NA
Gamma Chlordane	LB150305	mg/kg	0.1	<0.1	0%	NA
Alpha Chlordane	LB150305	mg/kg	0.1	<0.1	0%	NA
trans-Nonachlor	LB150305	mg/kg	0.1	<0.1	1%	NA
p,p'-DDE	LB150305	mg/kg	0.1	<0.1	3%	NA
Dieldrin	LB150305	mg/kg	0.2	<0.2	3%	111%
Endrin	LB150305	mg/kg	0.2	<0.2	0%	114%
o,p'-DDD	LB150305	mg/kg	0.1	<0.1	0%	NA
o,p'-DDT	LB150305	mg/kg	0.1	<0.1	0%	NA
Beta Endosulfan	LB150305	mg/kg	0.2	<0.2	0%	NA
p,p'-DDD	LB150305	mg/kg	0.1	<0.1	0%	NA
p,p'-DDT	LB150305	mg/kg	0.1	<0.1	40%	92%
Endosulfan sulphate	LB150305	mg/kg	0.1	<0.1	0%	NA
Endrin Aldehyde	LB150305	mg/kg	0.1	<0.1	0%	NA
Methoxychlor	LB150305	mg/kg	0.1	<0.1	0%	NA
Endrin Ketone	LB150305	mg/kg	0.1	<0.1	0%	NA
Isodrin	LB150305	mg/kg	0.1	<0.1	0%	NA
Mirex	LB150305	mg/kg	0.1	<0.1	0%	NA
Total CLP OC Pesticides	LB150305	mg/kg	1	<1	0%	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Tetrachloro-m-xylene (TCMX) (Surrogate)	LB150305	%	-	103%	1%	91%

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB150305	mg/kg	0.1	<0.1	0%	99%	107%
2-methylnaphthalene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
1-methylnaphthalene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Acenaphthylene	LB150305	mg/kg	0.1	<0.1	0%	100%	108%
Acenaphthene	LB150305	mg/kg	0.1	<0.1	0%	103%	108%
Fluorene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Phenanthrene	LB150305	mg/kg	0.1	<0.1	0%	98%	111%
Anthracene	LB150305	mg/kg	0.1	<0.1	0%	103%	112%
Fluoranthene	LB150305	mg/kg	0.1	<0.1	0%	100%	112%
Pyrene	LB150305	mg/kg	0.1	<0.1	10%	97%	111%
Benzo(a)anthracene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Chrysene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(b&j)fluoranthene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(k)fluoranthene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(a)pyrene	LB150305	mg/kg	0.1	<0.1	0%	106%	112%
Indeno(1,2,3-cd)pyrene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Dibenzo(ah)anthracene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Benzo(ghi)perylene	LB150305	mg/kg	0.1	<0.1	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=0	LB150305	TEQ (mg/kg)	0.2	<0.2	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=LOR	LB150305	TEQ (mg/kg)	0.3	<0.3	0%	NA	NA
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	LB150305	TEQ (mg/kg)	0.2	<0.2	0%	NA	NA
Total PAH (18)	LB150305	mg/kg	0.8	<0.8	0%	NA	NA
Total PAH (NEPM/WHO 16)	LB150305	mg/kg	0.8	<0.8			

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
d5-nitrobenzene (Surrogate)	LB150305	%	-	102%	11%	96%	112%
2-fluorobiphenyl (Surrogate)	LB150305	%	-	102%	9%	94%	100%
d14-p-terphenyl (Surrogate)	LB150305	%	-	110%	11%	104%	114%

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

PCBs in Soil **Method: ME-(AU)-[ENV]AN420**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Arochlor 1016	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1221	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1232	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1242	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1248	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1254	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1260	LB150305	mg/kg	0.2	<0.2	0%	106%
Arochlor 1262	LB150305	mg/kg	0.2	<0.2	0%	NA
Arochlor 1268	LB150305	mg/kg	0.2	<0.2	0%	NA
Total PCBs (Arochlors)	LB150305	mg/kg	1	<1	0%	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Tetrachloro-m-xylene (TCMX) (Surrogate)	LB150305	%	-	103%	4%	93%

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES **Method: ME-(AU)-[ENV]AN040/AN320**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Arsenic, As	LB150337	mg/kg	1	<1	14 - 28%	93%	88%
	LB150354	mg/kg	1	<1	21 - 40%	99%	92%
	LB150404	mg/kg	1	<1	1 - 68%	96%	94%
Cadmium, Cd	LB150337	mg/kg	0.3	<0.3	4 - 12%	104%	104%
	LB150354	mg/kg	0.3	<0.3	0%	108%	107%
	LB150404	mg/kg	0.3	<0.3	0 - 22%	105%	102%
Chromium, Cr	LB150337	mg/kg	0.3	<0.3	10 - 16%	81%	109%
	LB150354	mg/kg	0.3	<0.3	17 - 67%	110%	103%
	LB150404	mg/kg	0.3	<0.3	2 - 8%	89%	106%
Copper, Cu	LB150337	mg/kg	0.5	<0.5	1 - 21%	90%	117%
	LB150354	mg/kg	0.5	<0.5	6 - 9%	105%	111%
	LB150404	mg/kg	0.5	<0.5	5 - 31%	91%	110%
Nickel, Ni	LB150337	mg/kg	0.5	<0.5	4 - 12%	84%	101%
	LB150354	mg/kg	0.5	<0.5	0 - 1%	95%	102%
	LB150404	mg/kg	0.5	<0.5	14 - 17%	83%	102%
Lead, Pb	LB150337	mg/kg	1	<1	1 - 4%	89%	309%
	LB150354	mg/kg	1	<1	9 - 20%	92%	92%
	LB150404	mg/kg	1	<1	4 - 5%	93%	61%
Zinc, Zn	LB150337	mg/kg	2	<2.0	3 - 6%	92%	108%
	LB150354	mg/kg	2	<2.0	21 - 45%	97%	97%
	LB150404	mg/kg	2	<2.0	13 - 33%	93%	89%

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

TRH (Total Recoverable Hydrocarbons) in Soil Method: ME-(AU)-[ENV]AN403

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH C10-C14	LB150305	mg/kg	20	<20	0%	93%	103%
TRH C15-C28	LB150305	mg/kg	45	<45	0%	100%	110%
TRH C29-C36	LB150305	mg/kg	45	<45	0%	103%	93%
TRH C37-C40	LB150305	mg/kg	100	<100	0%	NA	NA
TRH C10-C36 Total	LB150305	mg/kg	110	<110	0%	NA	NA
TRH C10-C40 Total (F bands)	LB150305	mg/kg	210	<210	0%	NA	NA

TRH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
TRH >C10-C16	LB150305	mg/kg	25	<25	0%	90%	103%
TRH >C10-C16 - Naphthalene (F2)	LB150305	mg/kg	25	<25	0%	NA	NA
TRH >C16-C34 (F3)	LB150305	mg/kg	90	<90	0%	103%	118%
TRH >C34-C40 (F4)	LB150305	mg/kg	120	<120	0%	110%	NA

VOC's in Soil Method: ME-(AU)-[ENV]AN433

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB150255	mg/kg	0.1	<0.1	0%	109%	69%
Toluene	LB150255	mg/kg	0.1	<0.1	0%	77%	63%
Ethylbenzene	LB150255	mg/kg	0.1	<0.1	0%	76%	64%
m/p-xylene	LB150255	mg/kg	0.2	<0.2	0%	85%	73%
o-xylene	LB150255	mg/kg	0.1	<0.1	0%	79%	68%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB150255	mg/kg	0.1	<0.1	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB150255	%	-	89%	3 - 6%	94%	84%
d4-1,2-dichloroethane (Surrogate)	LB150255	%	-	85%	4 - 10%	89%	79%
d8-toluene (Surrogate)	LB150255	%	-	79%	4 - 11%	87%	75%
Bromofluorobenzene (Surrogate)	LB150255	%	-	83%	2 - 9%	96%	85%

Totals

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Total Xylenes	LB150255	mg/kg	0.3	<0.3	0%	NA	NA
Total BTEX	LB150255	mg/kg	0.6	<0.6	0%	NA	NA

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

VOCs in Water **Method: ME-(AU)-[ENV]AN433**

Monocyclic Aromatic Hydrocarbons

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Benzene	LB150246	µg/L	0.5	<0.5	42%	117%	131%
Toluene	LB150246	µg/L	0.5	<0.5	0%	115%	106%
Ethylbenzene	LB150246	µg/L	0.5	<0.5	0%	115%	131%
m/p-xylene	LB150246	µg/L	1	<1	0%	112%	137%
o-xylene	LB150246	µg/L	0.5	<0.5	0%	110%	123%

Polycyclic VOCs

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Naphthalene	LB150246	µg/L	0.5	<0.5	0%	NA	NA

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery	MS %Recovery
Dibromofluoromethane (Surrogate)	LB150246	%	-	111%	5%	73%	120%
d4-1,2-dichloroethane (Surrogate)	LB150246	%	-	112%	15%	79%	112%
d8-toluene (Surrogate)	LB150246	%	-	75%	9%	92%	79%
Bromofluorobenzene (Surrogate)	LB150246	%	-	98%	8%	112%	100%

Totals

Parameter	QC Reference	Units	LOR	MB
Total Xylenes	LB150246	µg/L	1.5	<1.5
Total BTEX	LB150246	µg/L	3	<3

Volatile Petroleum Hydrocarbons in Soil **Method: ME-(AU)-[ENV]AN433**

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
TRH C6-C10	LB150255	mg/kg	25	<25	0%	94%
TRH C6-C9	LB150255	mg/kg	20	<20	0%	85%

Surrogates

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Dibromofluoromethane (Surrogate)	LB150255	%	-	89%	3 - 6%	94%
d4-1,2-dichloroethane (Surrogate)	LB150255	%	-	85%	4 - 10%	89%
d8-toluene (Surrogate)	LB150255	%	-	79%	4 - 11%	87%
Bromofluorobenzene (Surrogate)	LB150255	%	-	83%	2 - 9%	96%

VPH F Bands

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Benzene (F0)	LB150255	mg/kg	0.1	<0.1	0%	NA
TRH C6-C10 minus BTEX (F1)	LB150255	mg/kg	25	<25	0%	116%

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
AN040	A portion of sample is digested with Nitric acid to decompose organic matter and Hydrochloric acid to complete the digestion of metals and then filtered for analysis by ASS or ICP as per USEPA Method 200.8.
AN040/AN320	A portion of sample is digested with nitric acid to decompose organic matter and hydrochloric acid to complete the digestion of metals. The digest is then analysed by ICP OES with metals results reported on the dried sample basis. Based on USEPA method 200.8 and 6010C.
AN312	Mercury by Cold Vapour AAS in Soils: After digestion with nitric acid, hydrogen peroxide and hydrochloric acid, mercury ions are reduced by stannous chloride reagent in acidic solution to elemental mercury. This mercury vapour is purged by nitrogen into a cold cell in an atomic absorption spectrometer or mercury analyser. Quantification is made by comparing absorbances to those of the calibration standards. Reference APHA 3112/3500
AN403	Total Recoverable Hydrocarbons: Determination of Hydrocarbons by gas chromatography after a solvent extraction. Detection is by flame ionisation detector (FID) that produces an electronic signal in proportion to the combustible matter passing through it. Total Recoverable Hydrocarbons (TRH) are routinely reported as four alkane groupings based on the carbon chain length of the compounds: C6-C9, C10-C14, C15-C28 and C29-C36 and in recognition of the NEPM 1999 (2013), >C10-C16 (F2), >C16-C34 (F3) and >C34-C40 (F4). F2 is reported directly and also corrected by subtracting Naphthalene (from VOC method AN433) where available.
AN403	Additionally, the volatile C6-C9 fraction may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Petroleum Hydrocarbons (TPH) follows the same method of analysis after silica gel cleanup of the solvent extract. Aliphatic/Aromatic Speciation follows the same method of analysis after fractionation of the solvent extract over silica with differential polarity of the eluent solvents .
AN403	The GC/FID method is not well suited to the analysis of refined high boiling point materials (ie lubricating oils or greases) but is particularly suited for measuring diesel, kerosene and petrol if care to control volatility is taken. This method will detect naturally occurring hydrocarbons, lipids, animal fats, phenols and PAHs if they are present at sufficient levels, dependent on the use of specific cleanup/fractionation techniques. Reference USEPA 3510B, 8015B.
AN420	(SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols (etc) in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN420	SVOC Compounds: Semi-Volatile Organic Compounds (SVOCs) including OC, OP, PCB, Herbicides, PAH, Phthalates and Speciated Phenols in soils, sediments and waters are determined by GCMS/ECD technique following appropriate solvent extraction process (Based on USEPA 3500C and 8270D).
AN433	VOCs and C6-C9 Hydrocarbons by GC-MS P&T: VOC`s are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&T) concentrator and autosampler and is detected with a Mass Spectrometer (MSD). Solid samples are initially extracted with methanol whilst liquid samples are processed directly. References: USEPA 5030B, 8020A, 8260.
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
AN605	This technique gravimetrically determines the mass of Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free fibres which are only observed by standard trace analysis as per AN 602.
AN605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calcuated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/ Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

ANALYTICAL REPORT

Accreditation No. 2562

CLIENT DETAILS

Contact	Michael Dunesky
Client	ALLIANCE GEOTECHNICAL PTY LTD
Address	10 Welder Road Seven Hills NSW 2147
Telephone	02 9675 1777
Facsimile	02 9675 1888
Email	michael@allgeo.com.au
Project	**6839 Gordon**
Order Number	**P1372**
Samples	23

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE180434 R0**
Date Received	15 Jun 2018
Date Reported	29 Jun 2018

COMMENTS

Accredited for compliance with ISO/IEC 17025 - Testing. NATA accredited laboratory 2562(4354).

No respirable fibres detected in soil samples using trace analysis technique.

Asbestos analysed by approved identifiers Ravee Sivasubramaniam and Yusuf Kuthpudin .
11 Soils on hold
Phenoxy Acid Herb subcontracted to SGS Melbourne , 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.

SIGNATORIES

Bennet Lo
Senior Organic Chemist/Metals Chemis

Dong Liang
Metals/Inorganics Team Leader

Ly Kim Ha
Organic Section Head

Ravee Sivasubramaniam
Hygiene Team Leader

Teresa Nguyen
Organic Chemist

RESULTS

Fibre ID in bulk materials — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE180434.045	FRAG-1	Other	50x45x3mm Cement Sheet Fragment	14 Jun 2018	Chrysotile Asbestos Detected	
SE180434.066	TP16-FRAG 1	Other	115x60x3mm Cement Sheet Fragment	14 Jun 2018	Amosite & Chrysotile Asbestos Detected	
SE180434.067	TP17-FRAG 1	Other	35x30x3mm Cement Sheet Fragment	14 Jun 2018	Chrysotile Asbestos Detected	

RESULTS

Fibre Identification in soil — Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE180434.046	TP01-0.0-0.25	Soil	890g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.047	TP02-0.0-0.25	Soil	954g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.048	TP03-0.0-0.65	Soil	1022g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.049	TP04-0.0-0.6	Soil	1173g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.050	TP05-0.0-0.65	Soil	1181g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.051	TP06-0.0-0.6	Soil	1281g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.052	TP07-0.0-0.7	Soil	994g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.053	TP08-0.0-1.0	Soil	823g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.054	TP09-0.0-0.6	Soil	1006g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.055	TP10-0.0-0.7	Soil	1127g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.056	TP11-0.0-0.7	Soil	1043g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.057	TP12-0.0-0.9	Soil	973g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.058	TP13-0.0-0.55	Soil	864g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.059	TP14-0.0-0.45	Soil	1130g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found Organic Fibres Detected	<0.01
SE180434.060	TP14-0.45-0.6	Soil	961g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.061	TP15-0.0-0.5	Soil	793g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.062	TP16-0.0-0.8	Soil	1033g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.063	TP17-0.0-0.9	Soil	1025g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.064	TP18-0.0-0.4	Soil	701g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01
SE180434.065	TP19-0.0-0.3	Soil	1049g Sand,Soil,Rocks	14 Jun 2018	No Asbestos Found	<0.01

Gravimetric Determination of Asbestos in Soil [AN605] Tested: 20/6/2018

PARAMETER	UOM	LOR	TP01-0.0-0.25 SOIL - 14/6/2018 SE180434.046	TP02-0.0-0.25 SOIL - 14/6/2018 SE180434.047	TP03-0.0-0.65 SOIL - 14/6/2018 SE180434.048	TP04-0.0-0.6 SOIL - 14/6/2018 SE180434.049	TP05-0.0-0.65 SOIL - 14/6/2018 SE180434.050
Total Sample Weight*	g	1	**890**	**954**	**1022**	**1173**	**1181**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-	-

PARAMETER	UOM	LOR	TP06-0.0-0.6 SOIL - 14/6/2018 SE180434.051	TP07-0.0-0.7 SOIL - 14/6/2018 SE180434.052	TP08-0.0-1.0 SOIL - 14/6/2018 SE180434.053	TP09-0.0-0.6 SOIL - 14/6/2018 SE180434.054	TP10-0.0-0.7 SOIL - 14/6/2018 SE180434.055
Total Sample Weight*	g	1	**1281**	**994**	**823**	**1006**	**1127**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-	-

PARAMETER	UOM	LOR	TP11-0.0-0.7 SOIL - 14/6/2018 SE180434.056	TP12-0.0-0.9 SOIL - 14/6/2018 SE180434.057	TP13-0.0-0.55 SOIL - 14/6/2018 SE180434.058	TP14-0.0-0.45 SOIL - 14/6/2018 SE180434.059	TP14-0.45-0.6 SOIL - 14/6/2018 SE180434.060
Total Sample Weight*	g	1	**1043**	**973**	**864**	**1130**	**961**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-	-

PARAMETER	UOM	LOR	TP15-0.0-0.5 SOIL - 14/6/2018 SE180434.061	TP16-0.0-0.8 SOIL - 14/6/2018 SE180434.062	TP17-0.0-0.9 SOIL - 14/6/2018 SE180434.063	TP18-0.0-0.4 SOIL - 14/6/2018 SE180434.064	TP19-0.0-0.3 SOIL - 14/6/2018 SE180434.065
Total Sample Weight*	g	1	**793**	**1033**	**1025**	**701**	**1049**
ACM in >7mm Sample*	g	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AF/FA in >2mm to <7mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
AF/FA in <2mm Sample*	g	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	-	-	-	-	-

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN602	Qualitative identification of chrysotile, amosite and crocidolite in bulk samples by polarised light microscopy (PLM) in conjunction with dispersion staining (DS). AS4964 provides the basis for this document. Unequivocal identification of the asbestos minerals present is made by obtaining sufficient diagnostic `clues`, which provide a reasonable degree of certainty, dispersion staining is a mandatory `clue` for positive identification. If sufficient `clues` are absent, then positive identification of asbestos is not possible. This procedure requires removal of suspect fibres/bundles from the sample which cannot be returned.
AN602	Fibres/material that cannot be unequivocably identified as one of the three asbestos forms, will be reported as unknown mineral fibres (umf) The fibres detected may or may not be asbestos fibres.
AN602	AS4964.2004 Method for the Qualitative Identification of Asbestos in Bulk Samples , Section 8.4, Trace Analysis Criteria, Note 4 states:"Depending upon sample condition and fibre type, the detection limit of this technique has been found to lie generally in the range of 1 in 1,000 to 1 in 10,000 parts by weight, equivalent to 1 to 0.1 g/kg."
AN602	The sample can be reported “no asbestos found at the reporting limit of 0.1 g/kg” (<0.01%w/w) where AN602 section 4.5 of this method has been followed, and if- (a) no trace asbestos fibres have been detected (i.e. no ‘respirable’ fibres): (b) the estimated weight of non-respirable asbestos fibre bundles and/or the estimated weight of asbestos in asbestos-containing materials are found to be less than 0.1g/kg: and (c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.
AN605	This technique gravimetrically determines the mass of Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free fibres which are only observed by standard trace analysis as per AN 602.
AN605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009.

FOOTNOTES

Amosite	-	Brown Asbestos	NA	-	Not Analysed
Chrysotile	-	White Asbestos	LNR	-	Listed, Not Required
Crocidolite	-	Blue Asbestos	*	-	NATA accreditation does not cover the performance of this service.
Amphiboles	-	Amosite and/or Crocidolite	**	-	Indicative data, theoretical holding time exceeded.

(In reference to soil samples only) This report does not comply with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment and Remediation and Management of Asbestos Contaminated sites in Western Australia - May 2009.

Sampled by the client.

Where reported: 'Asbestos Detected': Asbestos detected by polarised light microscopy, including dispersion staining.
Where reported: 'No Asbestos Found': No Asbestos Found by polarised light microscopy, including dispersion staining.
Where reported: 'UMF Detected': Mineral fibres of unknown type detected by polarised light microscopy, including dispersion staining. Confirmation by another independent analytical technique may be necessary.

Even after disintegration it can be very difficult, or impossible, to detect the presence of asbestos in some asbestos-containing bulk materials using polarised light microscopy. This is due to the low grade or small length or diameter of asbestos fibres present in the material, or to the fact that very fine fibres have been distributed intimately throughout the materials.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

ANALYTICAL REPORT

CLIENT DETAILS		LABORATORY DETAILS	
Contact	Huong Crawford	Manager	Adam Atkinson
Client	SGS EHS SYDNEY	Laboratory	SGS Melbourne EH&S
Address	Unit 16, 33 Maddox Street Alexandria NSW 2015	Address	10/585 Blackburn Road Notting Hill Victoria 3168
Telephone	02 8594 0400	Telephone	+61395743200
Facsimile	02 8594 0499	Facsimile	+61395743399
Email	au.environmental.sydney@sgs.com	Email	Au.SampleReceipt.Melbourne@sgs.com
Project	(Not specified)	SGS Reference	**ME307069 R0**
Order Number	**SE180434**	Date Received	20 Jun 2018
Samples	4	Date Reported	29 Jun 2018

COMMENTS

Whilst SGS laboratories conform to ISO:17025 standards, results of analysis in this report fall outside of the current scope of NATA accreditation .

SIGNATORIES

Vanessa Palamara
Chemist

Parameter	Units	LOR	Sample Number Sample Matrix Sample Date Sample Name	ME307069.001 Soil 14 Jun 2018 TP05-0.0-0.2	ME307069.002 Soil 14 Jun 2018 TP10-0.0-0.2	ME307069.003 Soil 14 Jun 2018 TP14-0.0-0.2	ME307069.004 Soil 14 Jun 2018 TP19-0.0-0.2
Moisture Content Method: AN002 Tested: 20/6/2018							
% Moisture	%w/w	1		**10.9**	**11.1**	**10.6**	**13.7**
Herbicides in soil MA-84.SL.01 Method: MA84 Tested: 22/6/2018							
Acifluorfen	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Bentazon	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Chloramben	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
24-D	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
24-DB	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Dicamba	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
3,5-Dichlorobenzoic acid	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Dichloroprop	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Dinoseb	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
MCPA	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
MCPP	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
4-Nitrophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Pentachlorophenol	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
Picloram	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
245-T	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5
245-TP	mg/kg	0.5		<0.5	<0.5	<0.5	<0.5

QC SUMMARY

MB blank results are compared to the Limit of Reporting
LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.
DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula : *the absolute difference of the two results divided by the average of the two results as a percentage*. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

Herbicides in soil MA-84.SL.01 Method: MA84

Parameter	QC Reference	Units	LOR	MB	DUP %RPD	LCS %Recovery
Acifluorfen	LB020981	mg/kg	0.5	<0.5	0%	
Bentazon	LB020981	mg/kg	0.5	<0.5	0%	
Chloramben	LB020981	mg/kg	0.5	<0.5	0%	
24-D	LB020981	mg/kg	0.5	<0.5	0%	55%
24-DB	LB020981	mg/kg	0.5	<0.5	0%	
Dicamba	LB020981	mg/kg	0.5	<0.5	0%	60%
3,5-Dichlorobenzoic acid	LB020981	mg/kg	0.5	<0.5	0%	
Dichloroprop	LB020981	mg/kg	0.5	<0.5	0%	
Dinoseb	LB020981	mg/kg	0.5	<0.5	0%	
MCPA	LB020981	mg/kg	0.5	<0.5	0%	64%
MCPP	LB020981	mg/kg	0.5	<0.5	0%	
4-Nitrophenol	LB020981	mg/kg	0.5	<0.5	0%	
Pentachlorophenol	LB020981	mg/kg	0.5	<0.5	0%	
Picloram	LB020981	mg/kg	0.5	<0.5	0%	
245-T	LB020981	mg/kg	0.5	<0.5	0%	
245-TP	LB020981	mg/kg	0.5	<0.5	0%	

Moisture Content Method: ME-(AU)-[ENV]AN002

Parameter	QC Reference	Units	LOR	DUP %RPD
% Moisture	LB020955	%w/w	1	4%

METHOD SUMMARY

METHOD	METHODOLOGY SUMMARY
AN002	The test is carried out by drying (at either 40°C or 105°C) a known mass of sample in a weighed evaporating basin. After fully dry the sample is re-weighed. Samples such as sludge and sediment having high percentages of moisture will take some time in a drying oven for complete removal of water.
MA84	This method is intended for the determination of chlorinated herbicide compounds by high performance liquid chromatography (HPLC) using Mass Spectrometry Detector. Soil samples are extracted with dichloromethane and tumbled for 4 hours, then solvent exchange to acetonitrile and filtered through 0.45 µm filter disc. The extract is injected into a HPLC and detected by mass spectrometry detector using selective ion monitoring.

FOOTNOTES

IS	Insufficient sample for analysis.	LOR	Limit of Reporting
LNR	Sample listed, but not received.	↑↓	Raised or Lowered Limit of Reporting
*	NATA accreditation does not cover the performance of this service.	QFH	QC result is above the upper tolerance
		QFL	QC result is below the lower tolerance
**	Indicative data, theoretical holding time exceeded.	-	The sample was not analysed for this analyte
		NVL	Not Validated

Samples analysed as received.
Solid samples expressed on a dry weight basis.

Where "Total" analyte groups are reported (for example, Total PAHs, Total OC Pesticides) the total will be calculated as the sum of the individual analytes, with those analytes that are reported as <LOR being assumed to be zero. The summed (Total) limit of reporting is calcuated by summing the individual analyte LORs and dividing by two. For example, where 16 individual analytes are being summed and each has an LOR of 0.1 mg/kg, the "Totals" LOR will be 1.6 / 2 (0.8 mg/kg). Where only 2 analytes are being summed, the " Total" LOR will be the sum of those two LORs.

Some totals may not appear to add up because the total is rounded after adding up the raw values.

If reported, measurement uncertainty follow the ± sign after the analytical result and is expressed as the expanded uncertainty calculated using a coverage factor of 2, providing a level of confidence of approximately 95%, unless stated otherwise in the comments section of this report.

Results reported for samples tested under test methods with codes starting with ARS-SOP, radionuclide or gross radioactivity concentrations are expressed in becquerel (Bq) per unit of mass or volume or per wipe as stated on the report. Becquerel is the SI unit for activity and equals one nuclear transformation per second.
Note that in terms of units of radioactivity:

a. 1 Bq is equivalent to 27 pCi
b. 37 MBq is equivalent to 1 mCi

For results reported for samples tested under test methods with codes starting with ARS-SOP, less than (<) values indicate the detection limit for each radionuclide or parameter for the measurement system used. The respective detection limits have been calculated in accordance with ISO 11929.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here : http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical%20Documents/MP-AU-ENV-QU-022%20QA%20QC%20Plan.pdf

STATEMENT OF QA/QC PERFORMANCE

SE180434 R0

CLIENT DETAILS

Contact	Michael Dunesky
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Project	**6839 Gordon**
Order Number	**P1372**
Samples	67

LABORATORY DETAILS

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Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
SGS Reference	**SE180434 R0**
Date Received	15 Jun 2018
Date Reported	29 Jun 2018

COMMENTS

All the laboratory data for each environmental matrix was compared to SGS' stated Data Quality Objectives (DQO). Comments arising from the comparison were made and are reported below.

The data relating to sampling was taken from the Chain of Custody document and was supplied by the Client.
This QA/QC Statement must be read in conjunction with the referenced Analytical Report.
The Statement and the Analytical Report must not be reproduced except in full.

All Data Quality Objectives were met with the exception of the following:

Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	VOCs in Water	1 item
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	61 Soils, 2 Waters, 3
Date documentation received	15/6/2018	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	5.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

HOLDING TIME SUMMARY

SE180434 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Fibre ID in bulk materials

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
FRAG-1	SE180434.045	LB150418	14 Jun 2018	15 Jun 2018	14 Jun 2019	21 Jun 2018	14 Jun 2019	22 Jun 2018
TP16-FRAG 1	SE180434.066	LB150418	14 Jun 2018	15 Jun 2018	14 Jun 2019	21 Jun 2018	14 Jun 2019	22 Jun 2018
TP17-FRAG 1	SE180434.067	LB150418	14 Jun 2018	15 Jun 2018	14 Jun 2019	21 Jun 2018	14 Jun 2019	22 Jun 2018

Fibre Identification in soil

Method: ME-(AU)-[ENV]AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.25	SE180434.046	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP02-0.0-0.25	SE180434.047	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP03-0.0-0.65	SE180434.048	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP04-0.0-0.6	SE180434.049	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP05-0.0-0.65	SE180434.050	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP06-0.0-0.6	SE180434.051	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP07-0.0-0.7	SE180434.052	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP08-0.0-1.0	SE180434.053	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP09-0.0-0.6	SE180434.054	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP10-0.0-0.7	SE180434.055	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP11-0.0-0.7	SE180434.056	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP12-0.0-0.9	SE180434.057	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP13-0.0-0.55	SE180434.058	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP14-0.0-0.45	SE180434.059	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP14-0.45-0.6	SE180434.060	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP15-0.0-0.5	SE180434.061	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP16-0.0-0.8	SE180434.062	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP17-0.0-0.9	SE180434.063	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP18-0.0-0.4	SE180434.064	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018
TP19-0.0-0.3	SE180434.065	LB150356	14 Jun 2018	15 Jun 2018	14 Jun 2019	20 Jun 2018	14 Jun 2019	22 Jun 2018

Gravimetric Determination of Asbestos in Soil

Method: ME-(AU)-[ENV]AN605

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.25	SE180434.046	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP02-0.0-0.25	SE180434.047	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP03-0.0-0.65	SE180434.048	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP04-0.0-0.6	SE180434.049	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP05-0.0-0.65	SE180434.050	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP06-0.0-0.6	SE180434.051	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP07-0.0-0.7	SE180434.052	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP08-0.0-1.0	SE180434.053	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP09-0.0-0.6	SE180434.054	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP10-0.0-0.7	SE180434.055	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP11-0.0-0.7	SE180434.056	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP12-0.0-0.9	SE180434.057	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP13-0.0-0.55	SE180434.058	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP14-0.0-0.45	SE180434.059	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP14-0.45-0.6	SE180434.060	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP15-0.0-0.5	SE180434.061	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP16-0.0-0.8	SE180434.062	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP17-0.0-0.9	SE180434.063	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP18-0.0-0.4	SE180434.064	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP19-0.0-0.3	SE180434.065	LB150355	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP01-0.25-0.4	SE180434.002	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP04-0.6-0.8	SE180434.008	LB150340	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018

HOLDING TIME SUMMARY

SE180434 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Mercury in Soil (continued)

Method: ME-(AU)-[ENV]AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP05-0.65-0.8	SE180434.010	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP09-0.6-0.8	SE180434.019	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP10-0.5-0.7	SE180434.021	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP11-0.0-0.2	SE180434.022	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP12-0.9-1.1	SE180434.025	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP13-0.0-0.2	SE180434.026	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP15-0.0-0.2	SE180434.030	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150341	14 Jun 2018	15 Jun 2018	12 Jul 2018	20 Jun 2018	12 Jul 2018	22 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
TP18-0.4-0.6	SE180434.037	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
DUP-01	SE180434.039	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
DUP-02	SE180434.040	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018
DUP-04	SE180434.041	LB150402	14 Jun 2018	15 Jun 2018	12 Jul 2018	21 Jun 2018	12 Jul 2018	22 Jun 2018

Moisture Content

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP01-0.25-0.4	SE180434.002	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP04-0.6-0.8	SE180434.008	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP05-0.65-0.8	SE180434.010	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP06-0.6-0.8	SE180434.012	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP09-0.6-0.8	SE180434.019	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP10-0.5-0.7	SE180434.021	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP11-0.0-0.2	SE180434.022	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP12-0.9-1.1	SE180434.025	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP13-0.0-0.2	SE180434.026	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP15-0.0-0.2	SE180434.030	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP15-0.4-0.5	SE180434.031	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018

HOLDING TIME SUMMARY

SE180434 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Moisture Content (continued)

Method: ME-(AU)-[ENV]AN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP16-0.8-1.0	SE180434.034	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP18-0.4-0.6	SE180434.037	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
DUP-01	SE180434.039	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
DUP-02	SE180434.040	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018
DUP-04	SE180434.041	LB150251	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	24 Jun 2018	20 Jun 2018

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.6-0.8	SE180434.012	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP15-0.4-0.5	SE180434.031	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.8-1.0	SE180434.034	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP06-0.6-0.8	SE180434.012	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018

HOLDING TIME SUMMARY

SE180434 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP15-0.4-0.5	SE180434.031	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP16-0.8-1.0	SE180434.034	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	25 Jun 2018

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.6-0.8	SE180434.012	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP15-0.4-0.5	SE180434.031	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.8-1.0	SE180434.034	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP01-0.25-0.4	SE180434.002	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150354	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	21 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP04-0.6-0.8	SE180434.008	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP05-0.65-0.8	SE180434.010	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150404	14 Jun 2018	15 Jun 2018	11 Dec 2018	21 Jun 2018	11 Dec 2018	22 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP09-0.6-0.8	SE180434.019	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP10-0.5-0.7	SE180434.021	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP11-0.0-0.2	SE180434.022	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS "Field Sampling Guide for Containers and Holding Time" (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP11-0.5-0.7	SE180434.023	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP12-0.9-1.1	SE180434.025	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP13-0.0-0.2	SE180434.026	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP15-0.0-0.2	SE180434.030	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP18-0.4-0.6	SE180434.037	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
DUP-01	SE180434.039	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
DUP-02	SE180434.040	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018
DUP-04	SE180434.041	LB150337	14 Jun 2018	15 Jun 2018	11 Dec 2018	20 Jun 2018	11 Dec 2018	22 Jun 2018

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP02-0.25-0.4	SE180434.004	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP03-0.65-0.8	SE180434.006	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP05-0.0-0.2	SE180434.009	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.0-0.2	SE180434.011	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP06-0.6-0.8	SE180434.012	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP07-0.7-0.9	SE180434.014	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-0.8-1.0	SE180434.016	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP08-1.0-1.2	SE180434.017	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP10-0.0-0.2	SE180434.020	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP12-0.5-0.7	SE180434.024	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP15-0.4-0.5	SE180434.031	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.6-0.8	SE180434.033	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP16-0.8-1.0	SE180434.034	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP17-0.0-0.2	SE180434.035	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150305	14 Jun 2018	15 Jun 2018	28 Jun 2018	20 Jun 2018	30 Jul 2018	22 Jun 2018

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018

HOLDING TIME SUMMARY

SE180434 R0

SGS holding time criteria are drawn from current regulations and are highly dependent on sample container preservation as specified in the SGS “Field Sampling Guide for Containers and Holding Time” (ref: GU-(AU)-ENV.001). Soil samples guidelines are derived from NEPM "Schedule B(3) Guideline on Laboratory Analysis of Potentially Contaminated Soils". Water sample guidelines are derived from "AS/NZS 5667.1 : 1998 Water Quality - sampling part 1" and APHA "Standard Methods for the Examination of Water and Wastewater" 21st edition 2005.

Extraction and analysis holding time due dates listed are calculated from the date sampled, although holding times may be extended after laboratory extraction for some analytes. The due dates are the suggested dates that samples may be held before extraction or analysis and still be considered valid.

Extraction and analysis dates are shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria. If the sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TRIP SPIKE	SE180434.043	LB150246	14 Jun 2018	15 Jun 2018	21 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TRIP BLANK	SE180434.044	LB150246	14 Jun 2018	15 Jun 2018	21 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
TP01-0.0-0.2	SE180434.001	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP02-0.0-0.2	SE180434.003	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP03-0.0-0.2	SE180434.005	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP04-0.0-0.2	SE180434.007	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP07-0.0-0.2	SE180434.013	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP08-0.0-0.2	SE180434.015	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP09-0.0-0.2	SE180434.018	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP11-0.5-0.7	SE180434.023	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP13-0.45-0.55	SE180434.027	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP14-0.45-0.65	SE180434.029	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP16-0.0-0.2	SE180434.032	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP18-0.0-0.2	SE180434.036	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018
TP19-0.0-0.2	SE180434.038	LB150255	14 Jun 2018	15 Jun 2018	28 Jun 2018	19 Jun 2018	29 Jul 2018	21 Jun 2018

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP06-0.0-0.2	SE180434.011	%	60 - 130%	102
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	101
	TP12-0.5-0.7	SE180434.024	%	60 - 130%	101
	TP16-0.6-0.8	SE180434.033	%	60 - 130%	100
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	98
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	100

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	TP01-0.0-0.2	SE180434.001	%	70 - 130%	98
	TP02-0.0-0.2	SE180434.003	%	70 - 130%	96
	TP02-0.25-0.4	SE180434.004	%	70 - 130%	88
	TP03-0.0-0.2	SE180434.005	%	70 - 130%	106
	TP03-0.65-0.8	SE180434.006	%	70 - 130%	92
	TP04-0.0-0.2	SE180434.007	%	70 - 130%	100
	TP05-0.0-0.2	SE180434.009	%	70 - 130%	100
	TP06-0.0-0.2	SE180434.011	%	70 - 130%	98
	TP06-0.6-0.8	SE180434.012	%	70 - 130%	96
	TP07-0.0-0.2	SE180434.013	%	70 - 130%	96
	TP07-0.7-0.9	SE180434.014	%	70 - 130%	94
	TP08-0.8-1.0	SE180434.016	%	70 - 130%	92
	TP08-1.0-1.2	SE180434.017	%	70 - 130%	88
	TP09-0.0-0.2	SE180434.018	%	70 - 130%	92
	TP10-0.0-0.2	SE180434.020	%	70 - 130%	102
	TP11-0.5-0.7	SE180434.023	%	70 - 130%	100
	TP12-0.5-0.7	SE180434.024	%	70 - 130%	100
	TP13-0.45-0.55	SE180434.027	%	70 - 130%	100
	TP14-0.45-0.65	SE180434.029	%	70 - 130%	102
	TP15-0.4-0.5	SE180434.031	%	70 - 130%	96
	TP16-0.8-1.0	SE180434.034	%	70 - 130%	100
	TP17-0.0-0.2	SE180434.035	%	70 - 130%	96
	TP18-0.0-0.2	SE180434.036	%	70 - 130%	92
d14-p-terphenyl (Surrogate)	TP01-0.0-0.2	SE180434.001	%	70 - 130%	104
	TP02-0.0-0.2	SE180434.003	%	70 - 130%	102
	TP02-0.25-0.4	SE180434.004	%	70 - 130%	92
	TP03-0.0-0.2	SE180434.005	%	70 - 130%	112
	TP03-0.65-0.8	SE180434.006	%	70 - 130%	92
	TP04-0.0-0.2	SE180434.007	%	70 - 130%	114
	TP05-0.0-0.2	SE180434.009	%	70 - 130%	108
	TP06-0.0-0.2	SE180434.011	%	70 - 130%	114
	TP06-0.6-0.8	SE180434.012	%	70 - 130%	100
	TP07-0.0-0.2	SE180434.013	%	70 - 130%	116
	TP07-0.7-0.9	SE180434.014	%	70 - 130%	104
	TP08-0.8-1.0	SE180434.016	%	70 - 130%	96
	TP08-1.0-1.2	SE180434.017	%	70 - 130%	92
	TP09-0.0-0.2	SE180434.018	%	70 - 130%	102
	TP10-0.0-0.2	SE180434.020	%	70 - 130%	116
	TP11-0.5-0.7	SE180434.023	%	70 - 130%	116
	TP12-0.5-0.7	SE180434.024	%	70 - 130%	106
	TP13-0.45-0.55	SE180434.027	%	70 - 130%	106
	TP14-0.45-0.65	SE180434.029	%	70 - 130%	110
	TP15-0.4-0.5	SE180434.031	%	70 - 130%	108
	TP16-0.8-1.0	SE180434.034	%	70 - 130%	112
	TP17-0.0-0.2	SE180434.035	%	70 - 130%	106
	TP18-0.0-0.2	SE180434.036	%	70 - 130%	104
d5-nitrobenzene (Surrogate)	TP01-0.0-0.2	SE180434.001	%	70 - 130%	102
	TP02-0.0-0.2	SE180434.003	%	70 - 130%	102
	TP02-0.25-0.4	SE180434.004	%	70 - 130%	90
	TP03-0.0-0.2	SE180434.005	%	70 - 130%	112
	TP03-0.65-0.8	SE180434.006	%	70 - 130%	94
	TP04-0.0-0.2	SE180434.007	%	70 - 130%	100

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	TP05-0.0-0.2	SE180434.009	%	70 - 130%	100
	TP06-0.0-0.2	SE180434.011	%	70 - 130%	104
	TP06-0.6-0.8	SE180434.012	%	70 - 130%	100
	TP07-0.0-0.2	SE180434.013	%	70 - 130%	96
	TP07-0.7-0.9	SE180434.014	%	70 - 130%	92
	TP08-0.8-1.0	SE180434.016	%	70 - 130%	86
	TP08-1.0-1.2	SE180434.017	%	70 - 130%	82
	TP09-0.0-0.2	SE180434.018	%	70 - 130%	82
	TP10-0.0-0.2	SE180434.020	%	70 - 130%	98
	TP11-0.5-0.7	SE180434.023	%	70 - 130%	96
	TP12-0.5-0.7	SE180434.024	%	70 - 130%	100
	TP13-0.45-0.55	SE180434.027	%	70 - 130%	98
	TP14-0.45-0.65	SE180434.029	%	70 - 130%	106
	TP15-0.4-0.5	SE180434.031	%	70 - 130%	102
	TP16-0.8-1.0	SE180434.034	%	70 - 130%	104
	TP17-0.0-0.2	SE180434.035	%	70 - 130%	102
	TP18-0.0-0.2	SE180434.036	%	70 - 130%	96

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Tetrachloro-m-xylene (TCMX) (Surrogate)	TP03-0.0-0.2	SE180434.005	%	60 - 130%	107
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	103
	TP15-0.4-0.5	SE180434.031	%	60 - 130%	105

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	77
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	85
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	76
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	81
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	73
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	80
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	75
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	80
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	79
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	79
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	77
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	77
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	73
d4-1,2-dichloroethane (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	96
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	110
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	96
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	100
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	92
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	105
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	93
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	107
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	105
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	105
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	100
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	115
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	96
d8-toluene (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	86
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	97
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	89
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	92
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	82
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	94
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	81
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	94
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	93
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	93

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOC's in Soil (continued)

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	TP16-0.0-0.2	SE180434.032	%	60 - 130%	89
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	98
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	85
Dibromofluoromethane (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	106
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	120
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	109
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	111
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	102
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	125
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	103
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	126
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	113
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	125
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	119
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	114
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	97

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TRIP SPIKE	SE180434.043	%	40 - 130%	117
	TRIP BLANK	SE180434.044	%	40 - 130%	84
d4-1,2-dichloroethane (Surrogate)	TRIP SPIKE	SE180434.043	%	40 - 130%	92
	TRIP BLANK	SE180434.044	%	40 - 130%	77
d8-toluene (Surrogate)	TRIP SPIKE	SE180434.043	%	40 - 130%	88
	TRIP BLANK	SE180434.044	%	40 - 130%	75
Dibromofluoromethane (Surrogate)	TRIP SPIKE	SE180434.043	%	40 - 130%	96
	TRIP BLANK	SE180434.044	%	40 - 130%	84

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	77
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	85
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	76
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	81
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	73
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	80
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	75
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	80
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	79
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	79
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	77
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	77
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	73
d4-1,2-dichloroethane (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	96
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	110
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	96
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	100
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	92
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	105
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	93
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	107
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	105
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	105
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	100
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	115
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	96
d8-toluene (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	86
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	97
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	89
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	92
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	82
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	94

Surrogate results are evaluated against upper and lower limit criteria established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). At least two of three routine level soil sample surrogate spike recoveries for BTEX/VOC are to be within 70-130% where control charts have not been developed and within the established control limits for charted surrogates. Matrix effects may void this as an acceptance criterion. Water sample surrogate spike recoveries are to be within 40-130%. The presence of emulsions, surfactants and particulates may void this as an acceptance criterion.

Result is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil (continued) — **Method: ME-(AU)-[ENV]AN433**

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d8-toluene (Surrogate)	TP09-0.0-0.2	SE180434.018	%	60 - 130%	81
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	94
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	93
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	93
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	89
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	98
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	85
Dibromofluoromethane (Surrogate)	TP01-0.0-0.2	SE180434.001	%	60 - 130%	106
	TP02-0.0-0.2	SE180434.003	%	60 - 130%	120
	TP03-0.0-0.2	SE180434.005	%	60 - 130%	109
	TP04-0.0-0.2	SE180434.007	%	60 - 130%	111
	TP07-0.0-0.2	SE180434.013	%	60 - 130%	102
	TP08-0.0-0.2	SE180434.015	%	60 - 130%	125
	TP09-0.0-0.2	SE180434.018	%	60 - 130%	103
	TP11-0.5-0.7	SE180434.023	%	60 - 130%	126
	TP13-0.45-0.55	SE180434.027	%	60 - 130%	113
	TP14-0.45-0.65	SE180434.029	%	60 - 130%	125
	TP16-0.0-0.2	SE180434.032	%	60 - 130%	119
	TP18-0.0-0.2	SE180434.036	%	60 - 130%	114
	TP19-0.0-0.2	SE180434.038	%	60 - 130%	97

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number	Parameter	Units	LOR	Result
LB150340.001	Mercury	mg/kg	0.05	<0.05
LB150341.001	Mercury	mg/kg	0.05	<0.05
LB150402.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB150305.001		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
		Alpha BHC	mg/kg	0.1	<0.1
		Lindane	mg/kg	0.1	<0.1
		Heptachlor	mg/kg	0.1	<0.1
		Aldrin	mg/kg	0.1	<0.1
		Beta BHC	mg/kg	0.1	<0.1
		Delta BHC	mg/kg	0.1	<0.1
		Heptachlor epoxide	mg/kg	0.1	<0.1
		Alpha Endosulfan	mg/kg	0.2	<0.2
		Gamma Chlordane	mg/kg	0.1	<0.1
		Alpha Chlordane	mg/kg	0.1	<0.1
		p,p'-DDE	mg/kg	0.1	<0.1
		Dieldrin	mg/kg	0.2	<0.2
		Endrin	mg/kg	0.2	<0.2
		Beta Endosulfan	mg/kg	0.2	<0.2
		p,p'-DDD	mg/kg	0.1	<0.1
		p,p'-DDT	mg/kg	0.1	<0.1
		Endosulfan sulphate	mg/kg	0.1	<0.1
		Endrin Aldehyde	mg/kg	0.1	<0.1
		Methoxychlor	mg/kg	0.1	<0.1
		Endrin Ketone	mg/kg	0.1	<0.1
		Isodrin	mg/kg	0.1	<0.1
		Mirex	mg/kg	0.1	<0.1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	103

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB150305.001		Naphthalene	mg/kg	0.1	<0.1
		2-methylnaphthalene	mg/kg	0.1	<0.1
		1-methylnaphthalene	mg/kg	0.1	<0.1
		Acenaphthylene	mg/kg	0.1	<0.1
		Acenaphthene	mg/kg	0.1	<0.1
		Fluorene	mg/kg	0.1	<0.1
		Phenanthrene	mg/kg	0.1	<0.1
		Anthracene	mg/kg	0.1	<0.1
		Fluoranthene	mg/kg	0.1	<0.1
		Pyrene	mg/kg	0.1	<0.1
		Benzo(a)anthracene	mg/kg	0.1	<0.1
		Chrysene	mg/kg	0.1	<0.1
		Benzo(a)pyrene	mg/kg	0.1	<0.1
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
		Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
		Benzo(ghi)perylene	mg/kg	0.1	<0.1
		Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-	102
		2-fluorobiphenyl (Surrogate)	%	-	102
		d14-p-terphenyl (Surrogate)	%	-	110

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result
LB150305.001	Arochlor 1016	mg/kg	0.2	<0.2
	Arochlor 1221	mg/kg	0.2	<0.2
	Arochlor 1232	mg/kg	0.2	<0.2
	Arochlor 1242	mg/kg	0.2	<0.2
	Arochlor 1248	mg/kg	0.2	<0.2
	Arochlor 1254	mg/kg	0.2	<0.2

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

PCBs in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result
LB150305.001		Arochlor 1260	mg/kg	0.2	<0.2
		Arochlor 1262	mg/kg	0.2	<0.2
		Arochlor 1268	mg/kg	0.2	<0.2
		Total PCBs (Arochlors)	mg/kg	1	<1
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	103

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number		Parameter	Units	LOR	Result
LB150337.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.3	<0.3
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0
LB150354.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.3	<0.3
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0
LB150404.001		Arsenic, As	mg/kg	1	<1
		Cadmium, Cd	mg/kg	0.3	<0.3
		Chromium, Cr	mg/kg	0.3	<0.3
		Copper, Cu	mg/kg	0.5	<0.5
		Nickel, Ni	mg/kg	0.5	<0.5
		Lead, Pb	mg/kg	1	<1
		Zinc, Zn	mg/kg	2	<2.0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result
LB150305.001		TRH C10-C14	mg/kg	20	<20
		TRH C15-C28	mg/kg	45	<45
		TRH C29-C36	mg/kg	45	<45
		TRH C37-C40	mg/kg	100	<100
		TRH C10-C36 Total	mg/kg	110	<110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB150255.001	Monocyclic Aromatic Hydrocarbons	Benzene	mg/kg	0.1	<0.1
		Toluene	mg/kg	0.1	<0.1
		Ethylbenzene	mg/kg	0.1	<0.1
		m/p-xylene	mg/kg	0.2	<0.2
		o-xylene	mg/kg	0.1	<0.1
	Polycyclic VOCs	Naphthalene	mg/kg	0.1	<0.1
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	89
		d4-1,2-dichloroethane (Surrogate)	%	-	85
		d8-toluene (Surrogate)	%	-	79
		Bromofluorobenzene (Surrogate)	%	-	83
	Totals	Total BTEX	mg/kg	0.6	<0.6

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB150246.001	Monocyclic Aromatic Hydrocarbons	Benzene	µg/L	0.5	<0.5
		Toluene	µg/L	0.5	<0.5
		Ethylbenzene	µg/L	0.5	<0.5
		m/p-xylene	µg/L	1	<1
		o-xylene	µg/L	0.5	<0.5
	Polycyclic VOCs	Naphthalene	µg/L	0.5	<0.5
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	111
		d4-1,2-dichloroethane (Surrogate)	%	-	112
		d8-toluene (Surrogate)	%	-	75

Blank results are evaluated against the limit of reporting (LOR), for the chosen method and its associated instrumentation, typically 2.5 times the statistically determined method detection limit (MDL).

Result is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB150246.001	Surrogates	Bromofluorobenzene (Surrogate)	%	-	98

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result
LB150255.001		TRH C6-C9	mg/kg	20	<20
	Surrogates	Dibromofluoromethane (Surrogate)	%	-	89
		d4-1,2-dichloroethane (Surrogate)	%	-	85
		d8-toluene (Surrogate)	%	-	79

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.008	LB150340.024	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE180434.019	LB150341.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE180434.033	LB150341.024	Mercury	mg/kg	0.05	1.0	0.94	35	10
SE180434.039	LB150402.014	Mercury	mg/kg	0.05	3.5	3.1	32	14
SE180434.041	LB150402.017	Mercury	mg/kg	0.05	2.9	2.7	32	9
SE180498.004	LB150340.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0

Moisture Content

Method: ME-(AU)-[ENV]AN002

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.010	LB150251.011	% Moisture	%w/w	0.5	13	15	37	13
SE180434.020	LB150251.022	% Moisture	%w/w	0.5	6.0	7.0	45	16
SE180434.031	LB150251.033	% Moisture	%w/w	0.5	14	15	37	7
SE180434.041	LB150251.044	% Moisture	%w/w	0.5	12	12	38	2

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.011	LB150305.037		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Lindane	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor	mg/kg	0.1	<0.1	<0.1	200	0
			Aldrin	mg/kg	0.1	<0.1	<0.1	200	0
			Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Delta BHC	mg/kg	0.1	<0.1	<0.1	200	0
			Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
			Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	177	0
			Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	189	0
			trans-Nonachlor	mg/kg	0.1	0.1	0.1	116	1
			p,p'-DDE	mg/kg	0.1	0.1	<0.1	129	3
			Dieldrin	mg/kg	0.2	0.2	0.2	74	3
			Endrin	mg/kg	0.2	<0.2	<0.2	200	0
			o,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			o,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
			Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
			p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
			p,p'-DDT	mg/kg	0.1	0.3	0.2	69	40
			Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
			Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
			Endrin Ketone	mg/kg	0.1	<0.1	<0.1	200	0
			Isodrin	mg/kg	0.1	<0.1	<0.1	200	0
			Mirex	mg/kg	0.1	<0.1	<0.1	200	0
			Total CLP OC Pesticides	mg/kg	1	<1	<1	181	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	30	1

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.013	LB150305.014	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthylene	mg/kg	0.1	<0.1	<0.1	200	0
		Acenaphthene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluorene	mg/kg	0.1	<0.1	<0.1	200	0
		Phenanthrene	mg/kg	0.1	<0.1	<0.1	200	0
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	0.1	0.1	121	0
		Pyrene	mg/kg	0.1	0.1	<0.1	130	10
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	184	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	163	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	197	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.013	LB150305.014		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	163	0
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1	200	0
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
			Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	200	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
			Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.4	30	11
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	9
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	11

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.031	LB150305.037		Arochlor 1016	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1221	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1232	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1242	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1248	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1254	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1260	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1262	mg/kg	0.2	<0.2	<0.2	200	0
			Arochlor 1268	mg/kg	0.2	<0.2	<0.2	200	0
			Total PCBs (Arochlors)	mg/kg	1	<1	<1	200	0
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0	0	30	4

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.006	LB150354.024	Arsenic, As	mg/kg	1	5	3	57	40
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.3	12	6.0	35	67 ②
		Copper, Cu	mg/kg	0.5	4.2	3.9	42	9
		Nickel, Ni	mg/kg	0.5	<0.5	<0.5	166	0
		Lead, Pb	mg/kg	1	15	14	37	9
		Zinc, Zn	mg/kg	2	4.6	2.9	83	45
SE180434.011	LB150404.014	Arsenic, As	mg/kg	1	3	3	67	1
		Cadmium, Cd	mg/kg	0.3	0.7	0.5	81	22
		Chromium, Cr	mg/kg	0.3	9.4	8.7	36	8
		Copper, Cu	mg/kg	0.5	5.6	5.3	39	5
		Nickel, Ni	mg/kg	0.5	3.2	2.8	47	14
		Lead, Pb	mg/kg	1	7	7	44	4
		Zinc, Zn	mg/kg	2	11	9.3	50	13
SE180434.016	LB150404.019	Arsenic, As	mg/kg	1	3	7	49	68 ②
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.3	12	12	34	2
		Copper, Cu	mg/kg	0.5	4.3	5.9	40	31
		Nickel, Ni	mg/kg	0.5	1.5	1.8	61	17
		Lead, Pb	mg/kg	1	20	19	35	5
		Zinc, Zn	mg/kg	2	14	20	42	33
SE180434.026	LB150337.014	Arsenic, As	mg/kg	1	3	2	70	14
		Cadmium, Cd	mg/kg	0.3	0.4	0.4	104	4
		Chromium, Cr	mg/kg	0.3	19	22	32	16
		Copper, Cu	mg/kg	0.5	5.3	5.3	39	1
		Nickel, Ni	mg/kg	0.5	2.0	1.8	56	12
		Lead, Pb	mg/kg	1	8	8	42	1
		Zinc, Zn	mg/kg	2	16	15	43	6
SE180434.041	LB150337.024	Arsenic, As	mg/kg	1	19	15	36	28
		Cadmium, Cd	mg/kg	0.3	0.7	0.6	75	12
		Chromium, Cr	mg/kg	0.3	6.0	5.4	39	10
		Copper, Cu	mg/kg	0.5	7.5	6.1	37	21
		Nickel, Ni	mg/kg	0.5	2.3	2.4	51	4
		Lead, Pb	mg/kg	1	54	52	32	4

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES (continued)

Method: ME-(AU)-[ENV]AN040/AN320

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.041	LB150337.024		Zinc, Zn	mg/kg	2	17	18	41	3
SE180498.002	LB150354.014		Arsenic, As	mg/kg	1	1	1	114	21
			Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
			Chromium, Cr	mg/kg	0.3	2.8	3.3	46	17
			Copper, Cu	mg/kg	0.5	2.2	2.3	52	6
			Nickel, Ni	mg/kg	0.5	1.8	1.9	57	1
			Lead, Pb	mg/kg	1	3	4	56	20
			Zinc, Zn	mg/kg	2	16	19	41	21

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.013	LB150305.014		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
SE180434.032	LB150305.040		TRH C10-C14	mg/kg	20	<20	<20	200	0
			TRH C15-C28	mg/kg	45	<45	<45	200	0
			TRH C29-C36	mg/kg	45	<45	<45	200	0
			TRH C37-C40	mg/kg	100	<100	<100	200	0
			TRH C10-C36 Total	mg/kg	110	<110	<110	200	0
			TRH C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.029	LB150255.015	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.3	5.9	50	6
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.2	5.0	50	4
			d8-toluene (Surrogate)	mg/kg	-	4.6	4.5	50	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.9	3.9	50	2
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0
SE180456.010	LB150255.031	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0
			m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
			o-xylene	mg/kg	0.1	<0.1	<0.1	200	0
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	5.1	4.9	50	3
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.9	4.4	50	10
			d8-toluene (Surrogate)	mg/kg	-	4.7	4.2	50	11
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.1	3.8	50	9
		Totals	Total Xylenes	mg/kg	0.3	<0.3	<0.3	200	0
			Total BTEX	mg/kg	0.6	<0.6	<0.6	200	0

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOCs in Water (continued)

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180397.001	LB150246.024	Monocyclic	Benzene	µg/L	0.5	11	17.35	33	42 ②
		Aromatic	Toluene	µg/L	0.5	<0.5	0.27	200	0
			Ethylbenzene	µg/L	0.5	<0.5	0.12	200	0
			m/p-xylene	µg/L	1	<1	0.11	200	0
			o-xylene	µg/L	0.5	<0.5	0.08	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	0.3	184	0
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	4.9	4.66	30	5
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.0	5.76	30	15
			d8-toluene (Surrogate)	µg/L	-	3.7	4.1	30	9
			Bromofluorobenzene (Surrogate)	µg/L	-	4.1	3.77	30	8

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE180434.029	LB150255.015		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	6.3	5.9	30	6
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	5.2	5.0	30	4
			d8-toluene (Surrogate)	mg/kg	-	4.6	4.5	30	4
			Bromofluorobenzene (Surrogate)	mg/kg	-	3.9	3.9	30	2
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0
SE180456.010	LB150255.031		TRH C6-C10	mg/kg	25	<25	<25	200	0
			TRH C6-C9	mg/kg	20	<20	<20	200	0
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	5.1	4.9	30	3
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.9	4.4	30	10
			d8-toluene (Surrogate)	mg/kg	-	4.7	4.2	30	11
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.1	3.8	30	9
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200	0
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200	0

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150340.002		Mercury	mg/kg	0.05	0.22	0.2	70 - 130	110
LB150341.002		Mercury	mg/kg	0.05	0.18	0.2	70 - 130	89
LB150402.002		Mercury	mg/kg	0.05	0.22	0.2	70 - 130	111

OC Pesticides in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150305.002		Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	117
		Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	115
		Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	114
		Dieldrin	mg/kg	0.2	0.2	0.2	60 - 140	111
		Endrin	mg/kg	0.2	0.2	0.2	60 - 140	114
		p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	92
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	40 - 130	91

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150305.002		Naphthalene	mg/kg	0.1	4.0	4	60 - 140	99
		Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	100
		Acenaphthene	mg/kg	0.1	4.1	4	60 - 140	103
		Phenanthrene	mg/kg	0.1	3.9	4	60 - 140	98
		Anthracene	mg/kg	0.1	4.1	4	60 - 140	103
		Fluoranthene	mg/kg	0.1	4.0	4	60 - 140	100
		Pyrene	mg/kg	0.1	3.9	4	60 - 140	97
		Benzo(a)pyrene	mg/kg	0.1	4.2	4	60 - 140	106
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	96
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	94
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	104

PCBs in Soil

Method: ME-(AU)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150305.002	Arochlor 1260	mg/kg	0.2	0.4	0.4	60 - 140	106

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150337.002	Arsenic, As	mg/kg	1	310	336.32	79 - 120	93
	Cadmium, Cd	mg/kg	0.3	430	416.6	69 - 131	104
	Chromium, Cr	mg/kg	0.3	29	35.2	80 - 120	81
	Copper, Cu	mg/kg	0.5	330	370.46	80 - 120	90
	Nickel, Ni	mg/kg	0.5	180	210.88	79 - 120	84
	Lead, Pb	mg/kg	1	96	107.87	79 - 120	89
	Zinc, Zn	mg/kg	2	280	301.27	80 - 121	92
LB150354.002	Arsenic, As	mg/kg	1	330	336.32	79 - 120	99
	Cadmium, Cd	mg/kg	0.3	450	416.6	69 - 131	108
	Chromium, Cr	mg/kg	0.3	39	35.2	80 - 120	110
	Copper, Cu	mg/kg	0.5	390	370.46	80 - 120	105
	Nickel, Ni	mg/kg	0.5	200	210.88	79 - 120	95
	Lead, Pb	mg/kg	1	100	107.87	79 - 120	92
	Zinc, Zn	mg/kg	2	290	301.27	80 - 121	97
LB150404.002	Arsenic, As	mg/kg	1	320	336.32	79 - 120	96
	Cadmium, Cd	mg/kg	0.3	440	416.6	69 - 131	105
	Chromium, Cr	mg/kg	0.3	31	35.2	80 - 120	89
	Copper, Cu	mg/kg	0.5	340	370.46	80 - 120	91
	Nickel, Ni	mg/kg	0.5	170	210.88	79 - 120	83
	Lead, Pb	mg/kg	1	100	107.87	79 - 120	93
	Zinc, Zn	mg/kg	2	280	301.27	80 - 121	93

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150305.002	TRH C10-C14	mg/kg	20	37	40	60 - 140	93
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	100
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	103

Laboratory Control Standard (LCS) results are evaluated against an expected result, typically the concentration of analyte spiked into the control during the sample preparation stage, producing a percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA /QC plan (Ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended dagger symbol (†) when outside suggested criteria.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150305.002	TRH F Bands	TRH >C10-C16	mg/kg	25	36	40	60 - 140	90
		TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	103
		TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	110

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150255.002	Monocyclic	Benzene	mg/kg	0.1	3.2	2.9	60 - 140	109
	Aromatic	Toluene	mg/kg	0.1	2.2	2.9	60 - 140	77
		Ethylbenzene	mg/kg	0.1	2.2	2.9	60 - 140	76
		m/p-xylene	mg/kg	0.2	5.0	5.8	60 - 140	85
		o-xylene	mg/kg	0.1	2.3	2.9	60 - 140	79
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.7	5	60 - 140	94
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.4	5	60 - 140	89
		d8-toluene (Surrogate)	mg/kg	-	4.4	5	60 - 140	87
		Bromofluorobenzene (Surrogate)	mg/kg	-	4.8	5	60 - 140	96

VOCs in Water

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150246.002	Monocyclic	Benzene	µg/L	0.5	53	45.45	60 - 140	117
	Aromatic	Toluene	µg/L	0.5	52	45.45	60 - 140	115
		Ethylbenzene	µg/L	0.5	52	45.45	60 - 140	115
		m/p-xylene	µg/L	1	100	90.9	60 - 140	112
		o-xylene	µg/L	0.5	50	45.45	60 - 140	110
	Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	3.7	5	60 - 140	73
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	4.0	5	60 - 140	79
		d8-toluene (Surrogate)	µg/L	-	4.6	5	60 - 140	92
		Bromofluorobenzene (Surrogate)	µg/L	-	5.6	5	60 - 140	112

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-[ENV]AN433

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB150255.002		TRH C6-C10	mg/kg	25	<25	24.65	60 - 140	94
		TRH C6-C9	mg/kg	20	<20	23.2	60 - 140	85
	Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.7	5	60 - 140	94
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.4	5	60 - 140	89
		d8-toluene (Surrogate)	mg/kg	-	4.4	5	60 - 140	87
		Bromofluorobenzene (Surrogate)	mg/kg	-	4.8	5	60 - 140	96
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	7.25	60 - 140	116

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury in Soil

Method: ME-(AU)-[ENV]AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180391.001	LB150340.004	Mercury	mg/kg	0.05	0.22	<0.05	0.2	98
SE180544.001	LB150402.004	Mercury	mg/kg	0.05	0.22	<0.05	0.2	89

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN420

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180434.003	LB150305.037		Naphthalene	mg/kg	0.1	4.3	<0.1	4	107
			2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
			Acenaphthylene	mg/kg	0.1	4.3	<0.1	4	108
			Acenaphthene	mg/kg	0.1	4.3	<0.1	4	108
			Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
			Phenanthrene	mg/kg	0.1	4.5	0.1	4	111
			Anthracene	mg/kg	0.1	4.5	<0.1	4	112
			Fluoranthene	mg/kg	0.1	4.7	0.3	4	112
			Pyrene	mg/kg	0.1	4.7	0.3	4	111
			Benzo(a)anthracene	mg/kg	0.1	0.2	0.2	-	-
			Chrysene	mg/kg	0.1	0.2	0.2	-	-
			Benzo(b&j)fluoranthene	mg/kg	0.1	0.3	0.3	-	-
			Benzo(k)fluoranthene	mg/kg	0.1	0.1	0.1	-	-
			Benzo(a)pyrene	mg/kg	0.1	4.7	0.3	4	112
			Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	0.2	-	-
			Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1	-	-
			Benzo(ghi)perylene	mg/kg	0.1	0.2	0.1	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	4.8	0.3	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	4.9	0.4	-	-
			Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	4.9	0.4	-	-
			Total PAH (18)	mg/kg	0.8	37	1.9	-	-
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.5	-	112
			2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	100
			d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	-	114

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES

Method: ME-(AU)-[ENV]AN040/AN320

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180434.017	LB150337.004	Arsenic, As	mg/kg	1	48	4	50	88
		Cadmium, Cd	mg/kg	0.3	52	<0.3	50	104
		Chromium, Cr	mg/kg	0.3	71	16	50	109
		Copper, Cu	mg/kg	0.5	63	4.6	50	117
		Nickel, Ni	mg/kg	0.5	51	0.7	50	101
		Lead, Pb	mg/kg	1	200	42	50	309 ④
		Zinc, Zn	mg/kg	2	60	6.2	50	108
SE180488.002	LB150354.004	Arsenic, As	mg/kg	1	52	6	50	92
		Cadmium, Cd	mg/kg	0.3	53	<0.3	50	107
		Chromium, Cr	mg/kg	0.3	65	14	50	103
		Copper, Cu	mg/kg	0.5	77	21	50	111
		Nickel, Ni	mg/kg	0.5	54	3.7	50	102
		Lead, Pb	mg/kg	1	78	32	50	92
		Zinc, Zn	mg/kg	2	84	36	50	97
SE180544.001	LB150404.004	Arsenic, As	mg/kg	1	49	2	50	94
		Cadmium, Cd	mg/kg	0.3	51	0.3	50	102
		Chromium, Cr	mg/kg	0.3	64	11	50	106
		Copper, Cu	mg/kg	0.5	71	16	50	110
		Nickel, Ni	mg/kg	0.5	54	3.5	50	102
		Lead, Pb	mg/kg	1	150	120	50	61 ④
		Zinc, Zn	mg/kg	2	130	83	50	89

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180434.003	LB150305.039	TRH C10-C14	mg/kg	20	41	<20	40	103
		TRH C15-C28	mg/kg	45	<45	<45	40	110
		TRH C29-C36	mg/kg	45	<45	<45	40	93
		TRH C37-C40	mg/kg	100	<100	<100	-	-

Matrix Spike (MS) results are evaluated as the percentage recovery of an expected result, typically the concentration of analyte spiked into a field sub -sample during the sample preparation stage. The original sample's result is subtracted from the sub-sample result before determining the percentage recovery. The criteria applied to the percentage recovery is established in the SGS QA/QC plan (ref: MP-(AU)-[ENV]QU-022). For more information refer to the footnotes in the concluding page of this report.

Recovery is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-[ENV]AN403

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180434.003	LB150305.039		TRH C10-C36 Total	mg/kg	110	<110	<110	-	-
			TRH C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
		TRH F Bands	TRH >C10-C16	mg/kg	25	41	<25	40	103
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	41	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	118
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-

VOC's in Soil

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180434.001	LB150255.004	Monocyclic	Benzene	mg/kg	0.1	2.0	<0.1	2.9	69
		Aromatic	Toluene	mg/kg	0.1	1.9	<0.1	2.9	63
			Ethylbenzene	mg/kg	0.1	1.9	<0.1	2.9	64
			m/p-xylene	mg/kg	0.2	4.2	<0.2	5.8	73
			o-xylene	mg/kg	0.1	2.0	<0.1	2.9	68
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	Dibromofluoromethane (Surrogate)	mg/kg	-	4.2	5.3	-	84
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	4.0	4.8	-	79
			d8-toluene (Surrogate)	mg/kg	-	3.7	4.3	-	75
			Bromofluorobenzene (Surrogate)	mg/kg	-	4.3	3.9	-	85
		Totals	Total Xylenes	mg/kg	0.3	6.2	<0.3	-	-
			Total BTEX	mg/kg	0.6	12	<0.6	-	-

VOCs in Water

Method: ME-(AU)-[ENV]AN433

QC Sample	Sample Number		Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE180365.003	LB150246.025	Monocyclic	Benzene	µg/L	0.5	59	<0.5	45.45	131
		Aromatic	Toluene	µg/L	0.5	48	<0.5	45.45	106
			Ethylbenzene	µg/L	0.5	60	<0.5	45.45	131
			m/p-xylene	µg/L	1	120	<1	90.9	137
			o-xylene	µg/L	0.5	56	<0.5	45.45	123
		Polycyclic	Naphthalene	µg/L	0.5	33	<0.5	-	-
		Surrogates	Dibromofluoromethane (Surrogate)	µg/L	-	6.0	5.1	-	120
			d4-1,2-dichloroethane (Surrogate)	µg/L	-	5.6	5.5	-	112
			d8-toluene (Surrogate)	µg/L	-	4.0	5.2	-	79
			Bromofluorobenzene (Surrogate)	µg/L	-	5.0	4.1	-	100

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: RPD = | OriginalResult - ReplicateResult | x 100 / Mean

The original result is the analyte concentration of the matrix spike. The Duplicate result is the analyte concentration of the matrix spike duplicate.

The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula: MAD = 100 x SDL / Mean + LR

Where the Maximum Allowable Difference evaluates to a number larger than 200 it is displayed as 200.

RPD is shown in **Green** when within suggested criteria or **Red** with an appended reason identifer when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

QC Sample	Sample Number	Parameter	Units	LOR

Samples analysed as received.

Solid samples expressed on a dry weight basis.

QC criteria are subject to internal review according to the SGS QA/QC plan and may be provided on request or alternatively can be found here: http://www.sgs.com.au/~/media/Local/Australia/Documents/Technical Documents/MP-AU-ENV-QU-022 QA QC Plan.pdf

*	NATA accreditation does not cover the performance of this service.
**	Indicative data, theoretical holding time exceeded.
-	Sample not analysed for this analyte.
IS	Insufficient sample for analysis.
LNR	Sample listed, but not received.
LOR	Limit of reporting.
QFH	QC result is above the upper tolerance.
QFL	QC result is below the lower tolerance.

①	At least 2 of 3 surrogates are within acceptance criteria.
②	RPD failed acceptance criteria due to sample heterogeneity.
③	Results less than 5 times LOR preclude acceptance criteria for RPD.
④	Recovery failed acceptance criteria due to matrix interference.
⑤	Recovery failed acceptance criteria due to the presence of significant concentration of analyte (i.e. the concentration of analyte exceeds the spike level).
⑥	LOR was raised due to sample matrix interference.
⑦	LOR was raised due to dilution of significantly high concentration of analyte in sample.
⑧	Reanalysis of sample in duplicate confirmed sample heterogeneity and inconsistency of results.
⑨	Recovery failed acceptance criteria due to sample heterogeneity.
⑩	LOR was raised due to high conductivity of the sample (required dilution).
†	Refer to Analytical Report comments for further information.

SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Contact	Michael Dunesky
Client	ALLIANCE GEOTECHNICAL PTY LTD
Address	10 Welder Road Seven Hills NSW 2147
Telephone	02 9675 1777
Facsimile	02 9675 1888
Email	michael@allgeo.com.au
Project	**6839 Gordon**
Order Number	**P1372**
Samples	67

LABORATORY DETAILS

Manager	Huong Crawford
Laboratory	SGS Alexandria Environmental
Address	Unit 16, 33 Maddox St Alexandria NSW 2015
Telephone	+61 2 8594 0400
Facsimile	+61 2 8594 0499
Email	au.environmental.sydney@sgs.com
Samples Received	Fri 15/6/2018
Report Due	Fri 22/6/2018
SGS Reference	**SE180434**

SUBMISSION DETAILS

This is to confirm that 67 samples were received on Friday 15/6/2018. Results are expected to be ready by COB Friday 22/6/2018. Please quote SGS reference SE180434 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice Bricks
Samples received in correct containers	Yes	Sample counts by matrix	61 Soils, 2 Waters, 3 Mater
Date documentation received	15/6/2018	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	5.3°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

Unless otherwise instructed, water and bulk samples will be held for one month from date of report, and soil samples will be held for two months.

COMMENTS

11 Soils on hold
Phenoxy Acid Herb subcontracted to SGS Melbourne, 10/585 Blackburn Road, Notting Hill, VIC, NATA Accreditation Numbe. 2562/14420.
DUP-1A, DUP-2A and DUP-4A forwarded to Eurofins.

SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	TP01-0.0-0.2	-	26	-	7	10	12	8
002	TP01-0.25-0.4	-	-	-	7	-	-	-
003	TP02-0.0-0.2	-	26	-	7	10	12	8
004	TP02-0.25-0.4	-	26	-	7	-	-	-
005	TP03-0.0-0.2	-	26	11	7	10	12	8
006	TP03-0.65-0.8	-	26	-	7	-	-	-
007	TP04-0.0-0.2	-	26	-	7	10	12	8
008	TP04-0.6-0.8	-	-	-	7	-	-	-
009	TP05-0.0-0.2	-	26	-	7	-	-	-
010	TP05-0.65-0.8	-	-	-	7	-	-	-
011	TP06-0.0-0.2	29	26	-	7	-	-	-
012	TP06-0.6-0.8	-	26	-	-	-	-	-
013	TP07-0.0-0.2	-	26	-	7	10	12	8
014	TP07-0.7-0.9	-	26	-	7	-	-	-
015	TP08-0.0-0.2	-	-	11	7	10	12	8
016	TP08-0.8-1.0	-	26	-	7	-	-	-
017	TP08-1.0-1.2	-	26	-	7	-	-	-
018	TP09-0.0-0.2	-	26	-	7	10	12	8
019	TP09-0.6-0.8	-	-	-	7	-	-	-
020	TP10-0.0-0.2	-	26	-	7	-	-	-
021	TP10-0.5-0.7	-	-	-	7	-	-	-
022	TP11-0.0-0.2	-	-	-	7	-	-	-
023	TP11-0.5-0.7	29	26	-	7	10	12	8
024	TP12-0.5-0.7	29	26	-	7	-	-	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	PCBs in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	TP12-0.9-1.1	-	-	-	7	-	-	-
026	TP13-0.0-0.2	-	-	-	7	-	-	-
027	TP13-0.45-0.55	-	26	-	-	10	12	8
029	TP14-0.45-0.65	-	26	-	-	10	12	8
030	TP15-0.0-0.2	-	-	-	7	-	-	-
031	TP15-0.4-0.5	-	26	11	-	-	-	-
032	TP16-0.0-0.2	-	-	-	-	10	12	8
033	TP16-0.6-0.8	29	-	-	7	-	-	-
034	TP16-0.8-1.0	-	26	-	-	-	-	-
035	TP17-0.0-0.2	-	26	-	7	-	-	-
036	TP18-0.0-0.2	29	26	-	7	10	12	8
037	TP18-0.4-0.6	-	-	-	7	-	-	-
038	TP19-0.0-0.2	29	-	-	7	10	12	8
039	DUP-01	-	-	-	7	-	-	-
040	DUP-02	-	-	-	7	-	-	-
041	DUP-04	-	-	-	7	-	-	-

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury in Soil	Moisture Content
001	TP01-0.0-0.2	1	1
002	TP01-0.25-0.4	1	1
003	TP02-0.0-0.2	1	1
004	TP02-0.25-0.4	1	1
005	TP03-0.0-0.2	1	1
006	TP03-0.65-0.8	1	1
007	TP04-0.0-0.2	1	1
008	TP04-0.6-0.8	1	1
009	TP05-0.0-0.2	1	1
010	TP05-0.65-0.8	1	1
011	TP06-0.0-0.2	1	1
012	TP06-0.6-0.8	-	1
013	TP07-0.0-0.2	1	1
014	TP07-0.7-0.9	1	1
015	TP08-0.0-0.2	1	1
016	TP08-0.8-1.0	1	1
017	TP08-1.0-1.2	1	1
018	TP09-0.0-0.2	1	1
019	TP09-0.6-0.8	1	1
020	TP10-0.0-0.2	1	1
021	TP10-0.5-0.7	1	1
022	TP11-0.0-0.2	1	1
023	TP11-0.5-0.7	1	1
024	TP12-0.5-0.7	1	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre ID in bulk materials	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil	Mercury in Soil	Moisture Content
025	TP12-0.9-1.1	-	-	-	1	1
026	TP13-0.0-0.2	-	-	-	1	1
027	TP13-0.45-0.55	-	-	-	-	1
029	TP14-0.45-0.65	-	-	-	-	1
030	TP15-0.0-0.2	-	-	-	1	1
031	TP15-0.4-0.5	-	-	-	-	1
032	TP16-0.0-0.2	-	-	-	-	1
033	TP16-0.6-0.8	-	-	-	1	1
034	TP16-0.8-1.0	-	-	-	-	1
035	TP17-0.0-0.2	-	-	-	1	1
036	TP18-0.0-0.2	-	-	-	1	1
037	TP18-0.4-0.6	-	-	-	1	1
038	TP19-0.0-0.2	-	-	-	1	1
039	DUP-01	-	-	-	1	1
040	DUP-02	-	-	-	1	1
041	DUP-04	-	-	-	1	1
045	FRAG-1	1	-	-	-	-
046	TP01-0.0-0.25	-	2	9	-	-
047	TP02-0.0-0.25	-	2	9	-	-
048	TP03-0.0-0.65	-	2	9	-	-

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre ID in bulk materials	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil
049	TP04-0.0-0.6	-	2	9
050	TP05-0.0-0.65	-	2	9
051	TP06-0.0-0.6	-	2	9
052	TP07-0.0-0.7	-	2	9
053	TP08-0.0-1.0	-	2	9
054	TP09-0.0-0.6	-	2	9
055	TP10-0.0-0.7	-	2	9
056	TP11-0.0-0.7	-	2	9
057	TP12-0.0-0.9	-	2	9
058	TP13-0.0-0.55	-	2	9
059	TP14-0.0-0.45	-	2	9
060	TP14-0.45-0.6	-	2	9
061	TP15-0.0-0.5	-	2	9
062	TP16-0.0-0.8	-	2	9
063	TP17-0.0-0.9	-	2	9
064	TP18-0.0-0.4	-	2	9
065	TP19-0.0-0.3	-	2	9
066	TP16-FRAG 1	1	-	-
067	TP17-FRAG 1	1	-	-

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	Sample Subcontracted
009	TP05-0.0-0.2	1
020	TP10-0.0-0.2	1

CONTINUED OVERLEAF

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SAMPLE RECEIPT ADVICE

SE180434

CLIENT DETAILS

Client ALLIANCE GEOTECHNICAL PTY LTD

Project 6839 Gordon

SUMMARY OF ANALYSIS

No.	Sample ID	Sample Subcontracted	VOCs in Water
028	TP14-0.0-0.2	1	-
038	TP19-0.0-0.2	1	-
043	TRIP SPIKE	-	12
044	TRIP BLANK	-	12

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CHAIN OF CUSTODY & ANALYSIS REQUEST

SGS Environmental Services
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 85940400
Facsimile No: (02) 85940499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Gordon
Address:	10 Welder Road,	Purchase Order No:	~~SGS~~ P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 288 188
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pHf / oHfox	Chromium Suite	Metals (8)	PAH	OCP/~~PP~~	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)	~~PP~~	TPH/BTEX
TP01-0.0-0.2	14-6-18	1		X	ice	1					X	X						X
TP01-0.25-0.4		2				1					X							
TP02-0.0-0.2		3				1					X	X						X
TP02-0.25-0.4		4				1					X	X						
TP03-0.0-0.2		5				1					X	X		X				X
TP03-0.65-0.8		6				1					X	X						
TP04-0.0-0.2		7				1					X	X						X
TP04-0.6-0.8		8				1					X							
TP05-0.0-0.2		9				1					X	X			X			

SGS EHS Alexandria Laboratory

SE180434 COC

Received: 15 – Jun – 2018

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: (Yes) No	Temperature: Ambient / (Chilled)	Sample Cooler Sealed: (Yes) No	Laboratory Quotation No:
	Comments:		

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 2 of 4

SGS Environmental Services
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 8594 0400
Facsimile No: (02) 8594 0499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Gordon
Address:	10 Welder Road,	Purchase Order No:	~~SGS~~ P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 288 186
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / oHfox	Chromium Suite	Metals	PAH	OCP/~~OPP~~	PCB	Phenols and Herbicides	Asbestos (0.001)		TRH/BTEX				
TP05-0.65-0.8	14-6-18	10		X	ICE	1					X											
TP06-0.0-0.2		11				1					X	X	X									
TP06-0.6-0.8		12				1						X										
TP07-0.0-0.2		13				1					X	X						X				
TP07-0.7-0.9		14				1					X	X										
TP08-0.0-0.2		15				1					X	X		X				X				
TP08-0.8-1.0		16				1					X	X										
TP08-1.0-1.2		17				1					X	X										
TP09-0.0-0.2		18				1					X	X						X				

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: Yes/No	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 3 of 9

SGS Environmental Services
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 8594 0400
Facsimile No: (02) 8594 0499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Cordon
Address:	10 Welder Road,	Purchase Order No:	~~SGS~~ P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 288 188
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pHf / oHfox	Chromium Suite	Metals	PAH	OCP/~~OPP~~	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)		TRH/BTEX				
TP09-0.6-0.8	14-6-18	19		X	ICE	1					X											
TP10-0.0-0.2		20				1					X	X			X							
TP10-0.5-0.7		21				1					X											
TP10-0.7-0.9						1																HOLD
TP11-0.0-0.2		22				1					X											
TP11-0.5-0.7		23				1+1					X	X	X					X				
TP11-0.7-0.9						1																HOLD
TP12-0.0-0.2						1																HOLD
TP12-0.5-0.7		24				1					X	X	X									

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: Yes/ No	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 4 of 9

SGS Environmental Services
Unit 16, 33 Maddox Street
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Telephone No: (02) 8594 0400
Facsimile No: (02) 8594 0499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Gordon
Address:	10 Welder Road,	Purchase Order No:	SGS P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 288 188
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / oHfox	Chromium Suite	Metals	PAH	OCP/	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)		TRH/BTEX				
TP12-0.9-1.1	14-6-18	25		X	ICE	1					X											
TP12-1.4-1.6						1																HOLD
TP13-0.0-0.2		26				1					X											
TP13-0.45-0.55		27				1					X	X						X				
TP13-0.55-0.7						1																HOLD
TP14-0.0-0.2		28				1									X							
TP14-0.45-0.65		29				2						X						X				
TP14-0.6-0.8						1																HOLD
TP15-0.0-0.2		30				1					X											

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: (Yes) No	Temperature: Ambient / (Chilled)	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 5 of 9

SGS Environmental Services
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 8594 0400
Facsimile No: (02) 8594 0499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Gordon
Address:	10 Welder Road,	Purchase Order No:	~~SGS~~ P1372 Evening P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 288 168
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / pHfox	Chromium Suite	Metals	PAH	OCP/OPP	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)		TPH/BTEX				
TP15-0.4-0.5	14-6-18	31		X	ICE	1						X		X								
TP15-0.5-0.7						1								~~X~~								HOLD
TP16-0.0-0.2		32				1												X				
TP16-0.6-0.8		33				1					X		X									
TP16-0.8-1.0		34				1						X										
TP17-0.0-0.2		35				1					X	X										
TP17-0.9-1.1						1																HOLD
TP18-0.0-0.2		36				1					X	X	X					X				
TP18-0.4-0.6		37				1					X											

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: (Yes) No	Temperature: Ambient / (Chilled)	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

CHAIN OF CUSTODY & ANALYSIS REQUEST

6 9

Company Name:	Alliance Geotechnical	Project Name/No:	Gordon
Address:	10 Welder Road, Seven Hills NSW	Purchase Order No:	SGS P1372 Eurofins P1373
		Results Required by:	
Contact Name:	Sam Brown	Telephone:	
		Facsimile:	N/A
		Email Results:	

	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	EMM Suite (no FM)	Asbestos ID	Field Screen - pH / others	Chromium Suite	Metals	BAH	OCP/	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)		TRH/BTEX
TP19-0.0-0.2	38			ICE	1					X		X		X			X
TP19-0.3-0.5			X														
DUP-01	39									X							
DUP-1A										X							
DUP-02	40									X							
DUP-2A										X							
DUP-03																	
DUP-3A																	
DUP-04	41									X							

HOLD
$
Send to Eurofins

Send to Eurofins
HOLD
HOLD
~~HOLD~~

Relinquished By:	Date/Time: 15-6-18	Received By:	Date/Time: 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: Yes/No	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Comments:
	Comments:		

Ref: SGS_BLANK

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 7 of 9

Company Name:	Alliance Geotechnical
Address:	10 Welder Road, Seven Hills NSW
Contact Name:	Sam Grow
Project Name/No:	Gordon
Purchase Order No:	SGS P1372 Eurofins P1373
Results Required By:	
Telephone:	1800 288 188
Facsimile:	N/A
Email Results:	enviro@aligeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos ID	Field Screen - pH / pHfox	Chromium Suite	Metals	PAH	OCP	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)	BTEX	TRH/BTEX
DUP-4A		42		X	ice	1					X							
TRIP SPIKE	↓	43	X		↓	1											X	
TRIP BLANK	↓	44	X		↓	1											X	
FRAG-1	↓	45	FRAGMENT					X										
TP01-0.0-0.25	↓	46		X		1										X		
TP02-0.0-0.25	↓	47		X		1										X		
TP03-0.0-0.65	↓	48		X		1										X		
TP04-0.0-0.6	↓	49		X		1										X		
TP05-0.0-0.65	↓	50		X		1										X		

Relinquished By: Sam Grow	Date/Time: 15-6-18	Received By: [signature]	Date/Time: 15/06/18 @4:30
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: Yes/ No	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

8 9

CHAIN OF CUSTODY & ANALYSIS REQUEST

Company Name:	Alliance Geotechnical	Project Name/No.	Gordon
Address:	10 Welder Road, Seven Hills NSW	Purchase Order No.	SGS P1372 Eurofins P1373
		Results Required By:	
Contact Name:	Sam Scerri	Telephone:	
		Facsimile:	N/A
		Email Results:	

Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	EMM Suite (no FM)	Asbestos ID	Field Screen - pH / other	Chromium Suite	Metals	PAH	OCP/	PCB	Phenoxy Acid Herbicides	Asbestos (0-001)		MTH/BTEX		
TP06-0.0-0.6	51				1										X			
TP07-0.0-0.7	52				1										X			
TP08-0.0-1.0	53				1										X			
TP09-0.0-0.6	54				1										X			
TP10-0.0-0.7	55				1										X			
TP11-0.0-0.7	56				1										X			
TP12-0.0-0.9	57				1										X			
TP13-0.0-0.55	58				1										X			
TP14-0.0-0.45	59				1										X			

Relinquished By:	Date/Time: 15-6-18	Received By:	Date/Time: 15/6/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: (Yes/No)	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Comments:
	Comments:		

Ref: SGS_BLANK

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 9 of 9

SGS Environmental Services
Unit 16, 33 Maddox Street
Alexandria NSW 2015
Telephone No: (02) 8594 0400
Facsimile No: (02) 8594 0499
Email: au.samplereceipt.sydney@sgs.com

Company Name:	Alliance Geotechnical	Project Name/No:	6839 Gordon
Address:	10 Welder Road,	Purchase Order No:	~~SGS~~ SGS P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	5 day TAT
		Telephone:	1800 268 188
Contact Name:	Sam Scully	Facsimile:	N/A
		Email Results:	enviro@alligeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / pHox	Chromium Suite	Metals	PAH	OCP	PCB	Phenols Acid Herbicides	Asbestos (0.001)						
TP14-0.45-0.6	14-6-18	60		X		1										X						
TP15-0.0-0.5	↓	61		↓		1										X						
TP16-0.0-0.8		62				1										X						
TP17-0.0-0.9		63				1										X						
TP18-0.0-0.4		64				1										X						
TP19-0.0-0.3		65		↓		1										X						
TP16-FRAG1		66	FRAGMENT					X														
TP17-FRAG1	↓	67	FRAGMENT					X														

Relinquished By: Sam Scully	Date/Time: 15-6-18	Received By:	Date/Time 15/06/18 @ 4:30
Relinquished By:	Date/Time:	Received By:	Date/Time
Samples Intact: (Yes) No	Temperature: Ambient / (Chilled)	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No:
	Comments:		

FW: SE180434 - 6839 Gordon

Craig Cowper <c.cowper@allgeo.com.au>

Tue 19/06/2018 8:05 AM

To: AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>;

1 attachments (3 MB)

SE180434_COC.pdf;

Yes, please forward to Eurofins.

From: AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>
Sent: Monday, 18 June 2018 3:57 PM
To: Sam Scully <sam@allgeo.com.au>
Subject: SE180434 - 6839 Gordon

Dear Sam,

Are you sure you do not want DUP-4A to be forwarded to Eurofins?
Please advise as soon as possible.

Thank You.

Regards,

Emily Yin
Environment, Health & Safety
Sample Receipt

SGS Australia Pty Ltd
Unit 16, 33 Maddox Street
Alexandria NSW 2015

Phone: +61 (0)2 8594 0400
Fax: +61 (0)2 8594 0499
E-mail: au.samplereceipt.sydney@sgs.com

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30 years Testing For Life 1987–2017
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Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **ALL SRAS/RESULTS/INVOICES**

Report **603440-S**
Project name GORDON
Received Date Jun 18, 2018

Client Sample ID			**DUP-1A**	**DUP-2A**
Sample Matrix			**Soil**	**Soil**
Eurofins | mgt Sample No.			**S18-Jn18780**	**S18-Jn18781**
Date Sampled			**Jun 14, 2018**	**Jun 14, 2018**
Test/Reference	LOR	Unit		
Heavy Metals				
Arsenic	2	mg/kg	4.1	52
Cadmium	0.4	mg/kg	0.8	2.4
Chromium	5	mg/kg	15	13
Copper	5	mg/kg	6.6	12
Lead	5	mg/kg	8.4	190
Mercury	0.1	mg/kg	3.1	9.2
Nickel	5	mg/kg	< 5	< 5
Zinc	5	mg/kg	16	81
% Moisture	1	%	10	17

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
Metals M8	Sydney	Jun 20, 2018	28 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 18, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

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

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2-5 Kingston Town Close
Oakleigh VIC 3166
Phone : +61 3 8564 5000
NATA # 1261
Site # 1254 & 14271

Sydney
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Lane Cove West NSW 2066
Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Alliance Geotechnical	**Order No.:**	P1373	**Received:**	Jun 18, 2018 2:55 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	603440	**Due:**	Jun 25, 2018
		Phone:	1800 288 188	**Priority:**	5 Day
		Fax:	02 9675 1888	**Contact Name:**	ALL SRAS/RESULTS/INVOICES
Project Name:	GORDON				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	DUP-1A	Jun 14, 2018		Soil	S18-Jn18780	X	X
2	DUP-2A	Jun 14, 2018		Soil	S18-Jn18781	X	X
Test Counts						2	2

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. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. 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 SRA.

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.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

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

Units

mg/kg: milligrams per kilogram

mg/L: milligrams per litre

ug/L: micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%: Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

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

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 and 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.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
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 & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs 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							
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	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	101			70-130	Pass	
Cadmium	%	101			70-130	Pass	
Chromium	%	102			70-130	Pass	
Copper	%	101			70-130	Pass	
Lead	%	102			70-130	Pass	
Mercury	%	101			70-130	Pass	
Nickel	%	101			70-130	Pass	
Zinc	%	101			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S18-Jn20694	NCP	%	75			70-130	Pass	
Cadmium	S18-Jn20694	NCP	%	76			70-130	Pass	
Chromium	S18-Jn20694	NCP	%	77			70-130	Pass	
Copper	S18-Jn20694	NCP	%	71			70-130	Pass	
Lead	S18-Jn20694	NCP	%	70			70-130	Pass	
Mercury	S18-Jn20694	NCP	%	77			70-130	Pass	
Nickel	S18-Jn20694	NCP	%	74			70-130	Pass	
Zinc	S18-Jn22825	NCP	%	113			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S18-Jn22834	NCP	mg/kg	6.3	7.6	19	30%	Pass	
Cadmium	S18-Jn22834	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S18-Jn22834	NCP	mg/kg	9.2	11	17	30%	Pass	
Copper	S18-Jn22834	NCP	mg/kg	28	30	5.0	30%	Pass	
Lead	S18-Jn22834	NCP	mg/kg	45	39	14	30%	Pass	
Mercury	S18-Jn22834	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S18-Jn22834	NCP	mg/kg	15	15	6.0	30%	Pass	
Zinc	S18-Jn22834	NCP	mg/kg	65	69	5.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S18-Jn18780	CP	%	10	11	4.0	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

Authorised By

Nibha Vaidya Analytical Services Manager

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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Brisbane
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NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name: Alliance Geotechnical
Address: 10 Welder Road
Seven Hills
NSW 2147

Project Name: GORDON

Order No.: P1373
Report #: 603440
Phone: 1800 288 188
Fax: 02 9675 1888

Received: Jun 18, 2018 2:55 PM
Due: Jun 25, 2018
Priority: 5 Day
Contact Name: ALL SRAS/RESULTS/INVOICES

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	DUP-1A	Jun 14, 2018		Soil	S18-Jn18780	X	X
2	DUP-2A	Jun 14, 2018		Soil	S18-Jn18781	X	X
Test Counts						2	2

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

Sydney
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16 Mars Road
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Phone : +61 2 9900 8400
NATA # 1261 Site # 18217

Brisbane
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Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

Sample Receipt Advice

Company name:	**Alliance Geotechnical**
Contact name:	ALL SRAS/RESULTS/INVOICES
Project name:	GORDON
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Jun 18, 2018 2:55 PM
Eurofins | mgt reference:	**603440**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to ALL SRAS/RESULTS/INVOICES - enviro@allgeo.com.au.

CHAIN OF CUSTODY & ANALYSIS REQUEST

6 9

Company Name:	Alliance Geotechnical	Project Name/No:	Gordon
Address:	10 Welder Road,	Purchase Order No:	~~[illegible]~~ SGS P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	
		Telephone:	1800 288 [illegible]
Contact Name:		Facsimile:	N/A
		Email Results:	enviro@allgeo.com.au

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / pHfox	Chromium Suite	Metals	PAH	OCP/~~[illegible]~~	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)		TRH/BTEX				
TP19-0.0-0.2					ICE	1					X		X		X			X				
TP19-0.3-0.5	↓			X ↓	↓	↓																HOLD
DUP-0.1											X											~~SG~~
DUP-1A											X											Send to Eurofins
DUP-02											X											
DUP-2A											X											Send to Eurofins
DUP-03																						HOLD
DUP-3A																						HOLD
DUP-04											X											~~HOLD~~

Relinquished By:	Date/Time:	Received By: [signature]	Date/Time
Relinquished By:	Date/Time:	Received By: Elvis P	Date/Time 18/6/18 2:55pm 11.4°C
Samples Intact: (Yes) / No	Temperature: Ambient / (Chilled)	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No: 603440
	Comments:		

Ref: SGS_BLANK_COC/ver2/16.03.[illegible]

Uncontrolled template when printed

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Celebrating 30 years Testing and Protecting Human Health

Certificate of Analysis

Alliance Geotechnical
10 Welder Road
Seven Hills
NSW 2147

NATA Accredited
Accreditation Number 1261
Site Number 18217

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

Attention: **ALL SRAS/RESULTS/INVOICES**

Report **603610-S**
Project name GORDON
Received Date Jun 19, 2018

Client Sample ID			**DUP-4A**
Sample Matrix			**Soil**
Eurofins | mgt Sample No.			**S18-Jn20655**
Date Sampled			**Jun 14, 2018**
Test/Reference	LOR	Unit	
Heavy Metals			
Arsenic	2	mg/kg	20
Cadmium	0.4	mg/kg	< 0.4
Chromium	5	mg/kg	11
Copper	5	mg/kg	7.8
Lead	5	mg/kg	91
Mercury	0.1	mg/kg	3.0
Nickel	5	mg/kg	< 5
Zinc	5	mg/kg	27
% Moisture	1	%	13

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
Metals M8	Sydney	Jun 21, 2018	28 Day
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
% Moisture	Sydney	Jun 19, 2018	14 Day
- Method: LTM-GEN-7080 Moisture			

ABN– 50 005 085 521
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NATA # 1261 Site # 20794

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Alliance Geotechnical	**Order No.:**	P1373	**Received:**	Jun 19, 2018 1:33 PM
Address:	10 Welder Road Seven Hills NSW 2147	**Report #:**	603610	**Due:**	Jun 26, 2018
		Phone:	1800 288 188	**Priority:**	5 Day
		Fax:	02 9675 1888	**Contact Name:**	ALL SRAS/RESULTS/INVOICES
Project Name:	GORDON				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	DUP-4A	Jun 14, 2018		Soil	S18-Jn20655	X	X
Test Counts						1	1

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. All biota/food results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

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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 SRA.

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.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether the holding time is 7 days however for all other VOCs such as BTEX or C6-10 TRH then the holding time is 14 days.

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

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

Terms

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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 and 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.
USEPA	United States Environmental Protection Agency
APHA	American Public Health Association
TCLP	Toxicity Characteristic Leaching Procedure
COC	Chain of Custody
SRA	Sample Receipt Advice
QSM	Quality Systems Manual ver 5.1 US Department of Defense
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 & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

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, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene 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 Aroclor 1260 in Matrix Spikes and LCS.
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 RPDs 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							
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	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic	%	99			70-130	Pass	
Cadmium	%	99			70-130	Pass	
Chromium	%	98			70-130	Pass	
Copper	%	96			70-130	Pass	
Lead	%	100			70-130	Pass	
Mercury	%	96			70-130	Pass	
Nickel	%	97			70-130	Pass	
Zinc	%	97			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Heavy Metals				Result 1					
Arsenic	S18-Jn20729	NCP	%	89			70-130	Pass	
Cadmium	S18-Jn20729	NCP	%	87			70-130	Pass	
Chromium	S18-Jn20729	NCP	%	86			70-130	Pass	
Copper	S18-Jn20729	NCP	%	79			70-130	Pass	
Lead	S18-Jn20729	NCP	%	71			70-130	Pass	
Mercury	S18-Jn20729	NCP	%	88			70-130	Pass	
Nickel	S18-Jn20729	NCP	%	80			70-130	Pass	
Zinc	S18-Jn20729	NCP	%	91			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic	S18-Jn20761	NCP	mg/kg	< 2	< 2	<1	30%	Pass	
Cadmium	S18-Jn20761	NCP	mg/kg	< 0.4	< 0.4	<1	30%	Pass	
Chromium	S18-Jn20761	NCP	mg/kg	7.7	7.2	6.0	30%	Pass	
Copper	S18-Jn20761	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Lead	S18-Jn20761	NCP	mg/kg	10	11	7.0	30%	Pass	
Mercury	S18-Jn20761	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Nickel	S18-Jn20761	NCP	mg/kg	< 5	< 5	<1	30%	Pass	
Zinc	S18-Jn20761	NCP	mg/kg	11	12	9.0	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
% Moisture	S18-Jn14542	NCP	%	5.2	6.4	20	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

Authorised By

Nibha Vaidya Analytical Services Manager

Glenn Jackson
National Operations Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

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

Measurement uncertainty of test data is available on request or please click here.

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NATA # 1261
Site # 1254 & 14271

Sydney
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16 Mars Road
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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

Perth
2/91 Leach Highway
Kewdale WA 6105
Phone : +61 8 9251 9600
NATA # 1261
Site # 23736

Company Name:	Alliance Geotechnical	**Order No.:**	P1373	**Received:**	Jun 19, 2018 1:33 PM
Address:	10 Welder Road	**Report #:**	603610	**Due:**	Jun 26, 2018
	Seven Hills	**Phone:**	1800 288 188	**Priority:**	5 Day
	NSW 2147	**Fax:**	02 9675 1888	**Contact Name:**	ALL SRAS/RESULTS/INVOICES
Project Name:	GORDON				

Eurofins | mgt Analytical Services Manager : Nibha Vaidya

Sample Detail						Metals M8	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271							
Sydney Laboratory - NATA Site # 18217						X	X
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	**Sample ID**	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
1	DUP-4A	Jun 14, 2018		Soil	S18-Jn20655	X	X
Test Counts						1	1

eurofins | mgt

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3-5 Kingston Town Close
Oakleigh Vic 3166
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NATA # 1261
Site # 1254 & 14271

Sydney
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NATA # 1261 Site # 18217

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NATA # 1261 Site # 20794

Perth
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Phone : +61 8 9251 9600
NATA # 1261 Site # 23736

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

Sample Receipt Advice

Company name:	**Alliance Geotechnical**
Contact name:	ALL SRAS/RESULTS/INVOICES
Project name:	GORDON
COC number:	Not provided
Turn around time:	5 Day
Date/Time received:	Jun 19, 2018 1:33 PM
Eurofins | mgt reference:	**603610**

Sample information

☑ A detailed list of analytes logged into our LIMS, is included in the attached summary table.

☑ All samples have been received as described on the above COC.

☑ COC has been completed correctly.

☑ Attempt to chill was evident.

☑ Appropriately preserved sample containers have been used.

☑ All samples were received in good condition.

☑ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.

☑ Appropriate sample containers have been used.

☒ Split sample sent to requested external lab.

☒ Some samples have been subcontracted.

N/A Custody Seals intact (if used).

Contact notes

If you have any questions with respect to these samples please contact:

Nibha Vaidya on Phone : +61 (2) 9900 8400 or by e.mail: NibhaVaidya@eurofins.com

Results will be delivered electronically via e.mail to ALL SRAS/RESULTS/INVOICES - enviro@allgeo.com.au.

7 9 13.6°C

CHAIN OF CUSTODY & ANALYSIS REQUEST

Company Name:	Alliance Geotechnical	Project Name/No:	Gordon
Address:	10 Welder Road,	Purchase Order No:	SGS P1372 Eurofins P1373
	Seven Hills NSW	Results Required By:	
Contact Name:		Telephone:	1800 [illegible]
		Facsimile:	N/A
		Email Results:	enviro@allgeo[illegible]

Sample ID	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	ENM Suite (no FM)	Asbestos I.D	Field Screen – pH / nitrox	Chromium Suite	Metals	PAH	OCP/	PCB	Phenoxy Acid Herbicides	Asbestos (0.001)	BTEX	NLH (BTEX
DUP-49	42		X	ICE	1					X							
TRIP SPIKE	43	X		↓	1											X	
TRIP BLANK	44	X		↓	1											X	
FRAG-1	45	FRAGMENT					X										
TP01-0.0-0.25	46		X		1										X		
TP02-0.0-0.25	47		X		1										X		
TP03-0.0-0.65	48		X		1										X		
TP04-0.0-0.6	49		X		1										X		
TP05-0.0-0.65	50		X		1										X		

Relinquished By:	Date/Time:	Received By:	Date/Time: 15/06/18 @4:30
Relinquished By:	Date/Time:	Received By: Elvis D (Eurofins)	Date/Time: 9/6/18 1:33PM
Samples Intact: Yes/ No	Temperature: Ambient / Chilled	Sample Cooler Sealed: Yes/ No	Laboratory Quotation No: 602756
	Comments:		

Ref: SGS_BLANK_COC/ver2/16.[illegible]

FW: SE180434 - 6839 Gordon

Tue 19/06/2018 8:05 AM

To:AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>;

1 attachments (3 MB)

SE180434_COC.pdf;

Yes, please forward to Eurofins.

From: AU.SampleReceipt.Sydney (Sydney) <AU.SampleReceipt.Sydney@sgs.com>
Sent: Monday, 18 June 2018 3:57 PM
To: Sam Scully <sam@allgeo.com.au>
Subject: SE180434 - 6839 Gordon

Dear Sam,

Are you sure you do not want DUP-4A to be forwarded to Eurofins?
Please advise as soon as possible.

Thank You.

Regards,

Emily Yin
Environment, Health & Safety
Sample Receipt

SGS Australia Pty Ltd
Unit 16, 33 Maddox Street
Alexandria NSW 2015

Phone: +61 (0)2 8594 0400
Fax: +61 (0)2 8594 0499
E-mail: au.samplereceipt.sydney@sgs.com