



Geotechnical Consultants Australia

Triple Eight Corporation Pty Ltd

**Supplementary Detailed Site
Investigation**

Proposed Development at:

241-245 Pennant Hills Road

Carlingford NSW 2118

Lots 1, 2, 5 & 6/-/DP805059

E2578-1-Rev A

8th September 2025

Report Distribution

Supplementary Detailed Site Investigation

Address: 241-245 Pennant Hills Road Carlingford NSW 2118

GCA Report No.: E2578-1

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SEARs Declaration

Declaration		
Name	Ehsan Zare	
Qualifications	Bachelor of Soil and Environmental Science, Master of Environmental Science and Technology, and PhD in soil and Environmental Science. CEnvP General No.1880	
The undersigned declares that this supplementary detailed site investigation (contamination assessment) report has been prepared in response to the following SEARs requirements issued for the Project on 23 rd May 2025 for SSD-SSD-84699461:		
SEARs Item No.	SEARs Requirement	Relevant Section of this Report
13.	Contamination and Remediation In accordance with Chapter 4 of the <i>State Environmental Planning Policy (Resilience and Hazards) 2021</i> , assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable (or will be suitable, after remediation) for the development.	Sections 7 to 16 inclusive
Signed 		
Dated	8 th September 2025	

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Executive Summary

This Supplementary Detailed Site Investigation (Supplementary DSI) has been prepared by Geotechnical Consultants Australia Pty Ltd (GCA) on behalf of Triple Eight Corporation Pty Ltd (the client) at the Carlingford Unit for the construction and operation of a mixed-use development including infill affordable housing on land at nos. 241-245 Pennant Hills Road Carlingford NSW 2118 (the site).

The site is legally identified as Lots 1, 2, 5 & 6/-/DP805059 and has an area of approximately 6,331m². The site is currently zoned as E1 - Local Centre and SP2 - Infrastructure.

This report has been prepared to:

- Undertake additional sampling to reassess soil and groundwater quality within accessible areas of the site, and
- Review the previous analytical results in accordance with the NEPM (2013) Residential (B) assessment criteria.

The scope of works undertaken includes:

- A site inspection to identify potential sources of contamination onsite;
- Soil and groundwater sampling within targeted area and laboratory analysis;
- Historical investigations relating to the site (if any);
- Review of current and historical Certificates of Title;
- Review of local Council records and planning certificates;
- Review of NSW EPA Contaminated Land Record of Notice, Protection of the Environment Operations (POEO) Register, NSW EPA PFAS Investigation Program map;
- Review of local geological and hydrogeological information, including an evaluation of the NSW Groundwater registered groundwater bore database;
- Review of Acid Sulphate Soil (ASS) data maps;
- Development of a Conceptual Site Model (CSM) to identify the connections between potential sources of contamination and exposure pathways, human and/or ecological receptors; and
- Recommendations for additional investigations (if any), based on the identified data gaps and findings of this report.

This report accompanies a State Significant Development Application that seeks approval for the demolition and construction of a mixed-use residential and commercial development including infill affordable housing, which involves the following:

- Site preparation works, including demolition of existing structures, vegetation removal as necessary, and bulk excavation.
- Construction and operation of a mixed-use development comprising commercial premises, gymnasium, child care centre and shop top housing as follows:
 - One (1), 18-storey building (Building A) in the north-east corner of the site; and two (2), 4-5 storey buildings (Building B & C) along the western edge of the site.
 - A publicly accessible through site link between Pennant Hills Road and Felton Road.
 - Six (6) commercial tenancies at ground floor.
 - A three (3) storey gymnasium within the southern portion of Building C.
 - A ninety-eight (98) place child care centre located on level 01 of Building A.
 - 2,356m² of communal open space in the following locations.
 - The roof of Building A, B and C,
 - The two (2) storey podium of Building A.
 - The publicly accessible through site link
 - A total of 136 residential apartments across the three buildings, including 25 infill affordable apartments,

- Provision of three levels of basement parking with a total of 263 car parking spaces comprising:
 - 151 residential car parking spaces (including 24 accessible spaces);
 - 30 commercial car parking spaces (including 4 accessible spaces);
 - 25 child care parking spaces (including 4 accessible spaces);
 - 26 gymnasium parking spaces (including 2 accessible spaces);
 - 26 visitor car parking spaces (including 12 accessible spaces); and
 - 3 car share spaces.

Street tree planting and landscaping, extension and augmentation of services and infrastructure as required. For a detailed project description, refer to the Environmental Impact Statement prepared by Planning Direction.

In August 2021, GCA conducted a Detailed Site Investigation (DSI, E21172-1) for the subject site. As part of the investigation, GCA collected twenty-one (21) soil samples and installed four (4) groundwater monitoring wells. Four (4) groundwater samples were also obtained. The desktop review and analytical results indicated no evidence of significant contamination in soil or groundwater at the site. Two (2) exceedances of benzo(a)pyrene (BaP) above the 2013 NEPM (Schedule B1) Human Health and Ecological Investigation Levels were identified, which were attributed to the presence of bitumen material overlying the fill layer. It was noted that elevated concentrations of BaP in relatively immobile sources, such as bitumen fragments, do not pose a significant risk to human health (NEPM 2011, Guideline on Health-Based Investigation Levels – B7, p. 10).

Based on the findings, GCA concluded that the site was suitable for Residential (A) land use. However, at the time of the investigation, no formal development plans were available.

The current proposed development is consistent with Residential (B) land use, for which a different set of assessment criteria applies under the NEPM (2013) guidelines. In addition, as the original DSI was completed four (4) years ago, a reassessment of the site's soil and groundwater conditions was considered necessary.

A review of historical aerial imagery indicates that the site was used for rural residential purposes prior to 1955, with evidence of limited market gardening activities. Since at least 1965, the site has been developed for commercial use. The existing buildings were constructed around that time and have remained largely unchanged since.

A site inspection was undertaken on 3rd July 2025 by GCA environmental division. GCA obtained eight (8) primary soil samples (250mL laboratory prepared jars) from six (6) locations with a judgemental sampling pattern. Additionally, three (3) groundwater samples were obtained from onsite wells.

All samples were submitted to a National Association of Testing Authorities, Australia (NATA) accredited laboratory. In addition to the primary soil samples additional QA/QC samples were submitted to a NATA accredited laboratory. These additional samples included one (1) field duplicate sample, one (1) trip spike, one (1) trip blank samples.

Analytical results indicate that there are no exceedances of the NEPM 2013 Human Health and Ecological Assessment Criteria for Residential (B) land use.

Data gaps remaining for the site include:

- The potential presence of hazardous materials within the onsite buildings;
- The condition of soils beneath the onsite buildings; and
- The classification of fill material, particularly in the context of the proposed bulk excavation for the basement car park.

Recommendations to address these data gaps are provided in Section 16.

Based on the site investigation and analytical results, GCA finds that the site is suitable for the proposed development, provided the recommendations within **Section 16** are undertaken.

1. Introduction

This Supplementary Detailed Site Investigation (Supplementary DSI) has been prepared by Geotechnical Consultants Australia Pty Ltd (GCA) on behalf of Triple Eight Corporation Pty Ltd (the client) at the Carlingford Unit for the construction and operation of a mixed-use development including infill affordable housing on land at nos. 241-245 Pennant Hills Road Carlingford NSW 2118 (the site).

The site is legally identified as Lots 1, 2, 5 & 6/-/DP805059 and has an area of approximately 6,331m². The site is currently zoned as E1 - Local Centre and SP2 - Infrastructure).

A site inspection for this Supplementary DSI was undertaken on 3rd July 2025 by GCA environmental division. Reporting and site photographs were collected on these dates (**Appendix A**) with reference to the relevant regulatory criteria (**Section 2, Scope of Work**). Further information obtained during the inspection is described in **Section 4, Site Conditions** of this report.

This report is written in accordance with the State Environmental Planning Policy (Resilience and Hazard) 2021 and follows the format of NSW EPA, *Guidelines for Consultants Reporting on Contaminated Land: Contaminated Land Guideline*, 2020.

1.1 Proposed Development

GCA understand that the proposed development for this site includes:

1. Demolition of all existing onsite structures;
2. Excavation and construction of a three (3) level basement carpark; and
3. Construction of a multi-level mixed use apartment building.

1.2 Objectives

The objectives of this Supplementary DSI are:

- Additional sampling to reassess soil and groundwater quality within accessible areas of the site, and
- To review the previous analytical results in accordance with the NEPM (2013) Residential (B) assessment criteria.

1.3 Trigger for Assessment

The trigger for assessment is to support a Development Application (DA) to be submitted to City of Parramatta Council.

2. Scope of Work

The Supplementary DSI has been prepared in general accordance with the following statutory and regulatory requirements:

Statutory Requirements

- National Environment Protection Council Act 1994;
- Protection of the Environment and Operation Act 1997;
- The Contaminated Land Management Act 1997; and
- Work Health and Safety Act, 2011.

Regulatory Requirements

- State Environmental Planning Policy (Resilience and Hazard) 2021;
- NSW EPA, *Contaminated Land Guidelines, Sampling Design Part 1 – Application*, 2022;
- NSW EPA, *Contaminated Land Guidelines, Sampling Design Part 2 – Interpretation*, 2022;
- NSW EPA, *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act*, 1997;

- NSW EPA, *Resource Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation*, 2014;
- NSW EPA, *Consultants Reporting on Contaminated Land: Contaminated Land Guidelines*, 2020;
- NSW EPA, *Contaminated Land Management, Guidelines for the NSW Site Auditor Scheme*, 2017 (3rd Edition);
- NSW EPA, *Waste Classification Guidelines Part 1: Classifying Waste*, 2014;
- NEPC, National Environment Protection (Assessment of Site Contamination) Measures (NEPM), 2013;
- HEPA, PFAS National Environmental Management Plan, Version 2.0, 2020;
- The National Remediation Framework, CRC Care, 2019;
- Protection of the Environment Operations (Waste) Regulations, 2005;
- SafeWork NSW, *Managing Asbestos in or On Soil*, 2014;
- Work Health and Safety Regulation, 2017;
- Parramatta Development Control Plan, 2023; and
- Parramatta Local Environmental Plan, 2023.

The scope of works required to complete the Supplementary DSI includes:

- A site inspection to identify potential sources of contamination onsite;
- Soil and groundwater sampling within targeted area and laboratory analysis;
- Historical investigations relating to the site (if any);
- Review of current and historical Certificates of Title;
- Review of local Council records and planning certificates;
- Review of NSW EPA Contaminated Land Record of Notice, Protection of the Environment Operations (POEO) Register, NSW EPA PFAS Investigation Program map;
- Review of local geological and hydrogeological information, including an evaluation of the NSW Groundwater registered groundwater bore database;
- Review of Acid Sulphate Soil (ASS) data maps;
- Development of a Conceptual Site Model (CSM) to identify the connections between potential sources of contamination and exposure pathways, human and/or ecological receptors; and
- Recommendations for additional investigations (if any), based on the identified data gaps and findings of this report.

3. Site Details

The site is identified as nos. 241-245 Pennant Hills Road, Carlingford within the City of Parramatta Local Government Area (LGA). It is situated in the western portion of the Carlingford Local Centre and is located approximately 18km north-west of the Sydney Central Business District (CBD).

The site is an irregular triangular shape and comprises approximate frontages of 140m to Pennant Hills Road to the south-east, 100m to Felton Road to the north and 135m to the adjoining properties to the west. The site comprises a total area of 6,331m², with the entirety of the site under single ownership

Table 1. Site Details

Address	241-245 Pennant Hills Road Carlingford NSW 2118
Deposited Plan	Lots 1, 2, 5 & 6/-/DP805059
Zoning	E1 - Local Centre and SP2 - Infrastructure
Site Area (approx.)	6,331m ²
LGA	City of Parramatta Council
Co-ordinates	-33.783729, 151.044162
UTM (GDA94)	318903.60m E, 6260155.05m S, 56H

Table 2. Surrounding Land Use

Direction from Site	Land Use
North	Felton Road
East	Pennant Hills Road
South	Pennant Hills Road
West	Residential lots

Figure 20: Site Aerial Map (Nearmap, edits by Kennedy Associates Architects)



A summary of the site description in Figure 20 is given below, for a total site area of approximately 6,331m²:

1. 241-245 Pennant Hills Road, Lot 1 DP805059.
2. 241-245 Pennant Hills Road, Lot 1 DP805059.
3. 241-245 Pennant Hills Road, Lot 1 DP805059.
4. 241-245 Pennant Hills Road, Lot 1 DP805059.

4. Site Condition

GCA environmental division inspected the site 3rd July 2025. Site photographs are provided in **Appendix**

A. Observations noted during the inspection are summarised below:

- The site is currently occupied by a part single and part two (2) storey commercial building comprising several tenancies, including small businesses and a 24-hour gym;
- The existing building on the site has variable setbacks to street and neighbouring property boundaries, due to the irregular configuration of the subject land and the building itself;
- The northern and southern boundaries of the site were mainly landscaped areas while the northwestern corner and south-eastern part were bitumen paved car parking areas. Vehicular access was via the south-eastern Pennant Hills Road frontage and two (2) other driveways at the northwestern and north-eastern corners via Felton Road;
- Bitumen and concrete pathways were found to be in good condition with no visible cracking or major staining;
- The site contains mature trees and vegetation areas along the boundaries;
- The vegetation across the site indicated good quality soil and drainage underlying the surface;
- There was a distinct change in elevation across the site, sloping from north-west of the site towards south-east; and
- There were no visibility or olfactory indicators of potential contamination.

Nearest human receptors surrounding the site includes residential and commercial properties and environmental receptors include The Ponds Creek approximately 680m to the south-east of the site.

Carlingford Transmission Substation was located 20m north and a 7-11 service station was located around 80m to the north-east of the site.

5. Site History

5.1 History of Site

A review of historical aerial imagery indicates that the site was used for rural residential purposes prior to 1955, with evidence of limited market gardening activities. Since at least 1965, the site has been developed for commercial use. The existing buildings were constructed around that time and have remained largely unchanged since.

Table 3. Historical Site Details

Year	Site and Surrounding Area
1943	The site comprised a rural residential lot with two buildings located in the northern portion. The remainder of the property consisted of lawn and vegetated areas. The surrounding area was characterised by rural and vacant land.
1955	Vegetation on the site was reduced. Market gardening activities were visible in the northeast section. Surrounding areas showed increased residential development.
1965	The site was redeveloped for commercial purposes, with existing structures already constructed. The surrounding area has experienced increased residential development, and a substation has been constructed to the north of the site.
1986	The site and surrounding area remain largely unchanged.
2005	The site and surrounding areas have remained largely unchanged and in their current condition.

5.2 Section 10.7 (2) Planning Certificate

A Section 10.7 Planning Certificate describes how a property may be used and the restrictions on development. The Planning Certificate is issued under Section 149 of the Environmental Planning and Assessment Act 1979. The Planning Certificate states that the site is not identified as significantly contaminated land.

5.3 NSW EPA Notified Sites

A search within the NSW EPA Notified Sites database was undertaken for the site. No results were identified for this site or within 500m of the site.

5.4 NSW EPA Contaminated Land Register

A search within the NSW EPA contaminated land register was undertaken for the subject site. No results were identified for this site or within 500m of the site.

5.5 Protection of the Environment Operations Act (POEO) Public Register

A search within the NSW EPA contaminated land register was undertaken for the subject site. No results were identified for this site or within 500m of the site.

5.6 SafeWork NSW Hazardous Goods

A SafeWork search was not undertaken for the site. No visual indications of hazardous good storage were evident at the time of inspection.

5.7 PFAS Investigation Program

The NSW Government PFAS Investigation Program map indicates the site is not currently listed or located within 1km of a listed site for PFAS contamination investigation and management programs.

6. Environmental Setting

6.1 Local Geology

Information obtained on the local regional subsurface conditions, referenced from the Department of Mineral Resources, Sydney 1:100,000 Geological Series Sheet 9130 Edition 1, dated 1983, by the Geological Survey of New South Wales, indicates that the site is located within a region underlain by the Ashfield Shale (Rwa) of the Wianamatta Group. The Ashfield Shale (Rwa) typically consists of "black to dark-grey Shale and laminite.

6.2 Soil Landscape

A review of the regional maps by the NSW Government Environment and Heritage shows that the site is set within the Glenorie (gn) landscape group, which is normally recognised by undulating low hills on Wianamatta Group shales.

Soils of the Glenorie group typically have a high soil erosion hazard, localised impermeable highly plastic soil, and are moderately reactive. Local reliefs are approximately 50m to 80m and slopes of approximately 5% to 20% in gradient. The dominant soil types associated with the Glenorie landscape group typically contains either a loam/sandy loam or a clayey or silty clay material and commonly contains shale rock fragments and gravels. This landscape group may also contain charcoal fragments. Soils of the Glenorie group are generally slightly acidic (pH 6.5) to strongly acidic (pH 4.0).

6.3 Hydrogeology and Groundwater

The site is likely located within Glenhaven Hydrogeological Landscapes (HGL). This HGL is characterised by undulating hills on Triassic Ashfield Shale over Hawkesbury Sandstone at Glenhaven, Eastwood, Roselea, Denistone West, Epping and West Ryde. It is an area of moderate to high rainfall (900-1200mm) located in the north of the Sydney Metropolitan region, bordering the Hawkesbury Sandstone units on the Hornsby Plateau. It is found in both Hawkesbury-Nepean and Sydney Metropolitan catchments.

Water infiltrates through the steep hills and flows downslope laterally along clay rich layers within the soil material and also vertically through the underlying shales within the matrix and preferentially along fractures and bedding planes. The lateral movement of subsurface waters may be impeded by a soil texture change (lithic gravels and sands to sandy clay) at the change in slope.

Groundwater systems are local with short flow lengths and are loosely defined by topographic catchments. Water quality within these systems is fresh. Water table depths are intermediate to deep (2- >8m).

A groundwater bore search was conducted on 11th July 2025 and ten (10) bores were found within Carlingford Substation north of the site.

GW115352 was the nearest borehole, situated approximately 25m north of the site, with a final depth of 4.9m and no recorded standing water level. The stratigraphy comprised fill material to a depth of 0.3m below ground level (bgl), underlain by shale at depths greater than 0.5m bgl.

It was beyond the scope of works to study the groundwater flow direction. However, based on the regional topography, groundwater is expected to flow towards The Ponds Creek located approximately 680m south-east of the site.

6.4 Site Drainage

The site's drainage is expected to align with the prevailing local topography. Stormwater is anticipated to be managed through both onsite and offsite collection pits, which are integrated into the municipal stormwater system and ultimately discharge towards The Ponds Creek, situated approximately 680m south-east of the site. Additionally, large portions of the site consist of accessible soils, which allow for direct infiltration into the sub-soil and bedrock.

6.5 Topography

The site has sloping gradient from north-west (Reduced Level (RL) 109.3m Australian Height Datum (AHD)) towards south (RL106m AHD). Regional topography surrounding the site has a gentle sloping towards The Ponds Creek, situated approximately 680m south-east of the site.

6.6 Acid Sulphate Soils

To determine whether there is a potential for ASS to be present at the site, information was reviewed utilising the NSW Department of Planning, Industry and Environment eSPADE map viewer.

This search indicated that there is "no known occurrence" of ASS underlying the soil at this site.

7. Areas of Environmental Concern

Based on the above information, the potential Areas of Environmental Concern (AEC) and their associated Contaminants of Potential Concern (CoPC) for the site were identified and summarised below.

Table 4. AEC and Associated CoPC

AEC	Potentially Contaminating/ Hazardous Activity	CoPC	Likelihood of Site Impact	Comments
Entire site	Importation of fill material from unknown origin. Hazardous materials from demolition of previous onsite structures Historical site use and site operation including market gardening Hazardous building material. Onsite Carparking 7-11 service station	TRH, BTEX, PAH, OCP/OPP, PCBs, Metals Asbestos	Moderate	Based on site observations during test pit sampling, the presence of imported fill material is likely. Hazardous materials from demolition of previous onsite structures may have given rise to contamination events Historical operations may have given rise to contamination event/s. Weathering of site buildings may give rise to contamination event/s. Contaminated groundwater migration to the site
Onsite structures	Hazardous materials	ACM, SMF, ODS, Lead (paint and/or dust), PCBs	Low	Based on site observations, it cannot be concluded that any of the hazardous materials mentioned here are present at this location. A HMS is recommended prior to the demolition of any onsite structures.

Abbreviations: Total Recoverable Hydrocarbons (TRH), Benzene Toluene Ethylbenzene and Xylene (BTEX), Polycyclic Aromatic Hydrocarbon (PAH), Organochlorine Pesticides (OCPs), Organophosphorus Pesticides (OPPs), Polychlorinated Biphenyls (PCBs), Asbestos Containing Materials (ACM), Hazardous Materials Survey (HMS), Ozone Depleting Substances (ODS), Synthetic Mineral Fibres (SMF).

8. Conceptual Site Model

A Conceptual Site Model (CSM) was developed to provide an indication of potential risks associated with contamination source and contamination migration pathways, receptors and exposure mechanisms. The CSM provides a framework for the review of the reliability and useability of the data collected and to identify data gaps in the existing site characterisation. Here, we consider the connections between the following elements:

- Potential contamination sources and their associated CoPC;
- Potential human receptors that may be impacted by the site contamination are current and future site users including occupants to the dwelling/infrastructures onsite, site workers and the general public within the immediate vicinity of the site;
- Potential environmental receptors to the site including but not limited to: groundwater and surface water bodies, residual soils at and/or nearby the site;
- Potential exposure pathways; and
- Whether source-pathway-receptor connections are complete based on current and future suite conditions.

Table 5. Conceptual Site Model

Potential Sources and Mechanism of Contamination	Potential Receptor	Potential Exposure Pathway	Complete Connection	Risk	Comments
Importation of fill material from unknown origin (entrained in fill)	Site occupants, workers, general public, future site users, ecological receptors.	Dermal contact, inhalation/ ingestion of particulates, vapour intrusion.	Complete (current)	Low	Exposure to potentially contaminated fill is possible due to unsealed surfaces.
			Incomplete (future)	Low	If present, impacted soils are likely to be disposed of offsite.
Hazardous material from demolition of historic onsite structures (Top down)	Natural soils	Migration of contamination from fill layer/ topsoil to underlying natural soils.	Complete (current)	Low	Migration through fill layer to natural soils is possible.
			Complete (future)	Low	If present, impacted soils are likely to be disposed of offsite.
Historical site activities (Top down)	The Ponds Creek, situated approximately 680m south-east of the site	Migration of impacted groundwater and surface water run-off.	Incomplete (current)	Low	It is unlikely surface water from the site can reach these waterways due to large distance.
Onsite Carparking (Top down)			Incomplete (future)	Low	If present, contaminated soils and groundwater are likely to be remediated.
Hazardous materials from weathering of onsite structures (Top down)	Underlying aquifer	Leaching and migration of contaminants through groundwater infiltration.	Incomplete (current)	Low	Due to existing unsealed surfaces, leachability of CoPC is possible.
			Incomplete (future)	Low	If present, contaminated soil and/or groundwater is likely to be remediated.
7-11 service station north of the site					

(Groundwater migration)					
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9. Site Assessment Criteria (SAC)

The following site assessment criteria were adopted for the investigation.

9.1 NEPM Health Investigation Level B (HIL-B) – Residential

HILs are scientific, risk-based guidance levels to be used as in the primary stage of assessing soil contamination to evaluate the potential risks to human health from chronic exposure to contaminants. HILs are applicable to a broad range of metals and organic substances and generally apply to depths up to 3m below the surface for residential use. Tier 1 HILs are divided into sub-criteria. The sub-criteria appropriate to the site is HIL B – residential with limited access to soils.

Table 6. HIL-A

Assessment Criteria	NEPM 2013 Residential Soil HIL-B, mg/kg
Pesticides	
HCB	15
Heptachlor	10
Chlordane	90
Aldrin & Dieldrin	10
Endrin	20
DDD+DDE+DDT	600
Endosulfan	40
Methoxychlor	500
Mirex	20
Metals	
Arsenic, As	500
Cadmium, Cd	150
Chromium, Cr	500
Copper, Cu	30,000
Lead, Pb	1200
Nickel, Ni	1200
Zinc, Zn	60,000
Mercury, Hg	120
Polycyclic Aromatic Hydrocarbons	
Carcinogenic PAH (as BaP TEQ)	4
Total PAH (18)	400
Polychlorinated Biphenyls (PCBs)	
Total PCBs	1

9.2 NEPM Health Screening Level B (HSL-B) – Residential

HSLs have been developed for selected petroleum compounds and fractions and are used for the assessment of potential risks to human health from chronic inhalation and direct contact pathways of petroleum vapour emanating off petroleum contaminated soils (Vapour Risk). HSLs are guided by land-use scenarios, specific soil physicochemical properties and generally apply to depths below surface to >4m. Tier 1 HSLs are divided into sub-criteria. The sub-criteria appropriate to the site is HSL B – residential with limited access to soils.

Table 7. HSL-A

Assessment Criteria	NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 0-<1m depth, Clay, mg/kg	NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, >1-2m depth, Clay, mg/kg
Monocyclic Aromatic Hydrocarbons		
Benzene	0.7	1
Toluene	480	NL
Ethylbenzene	NL	NL
Xylenes	110	310
Polycyclic Aromatic Hydrocarbons		
Naphthalene	5	NL
Total Recoverable Hydrocarbons		
TRH C6-C10 - BTEX (F1)	50	90
TRH >C10-C16 - N (F2)	280	NL

9.3 NEPM Ecological Investigation Level (EIL) – Urban Residential and Public Open Space

Ecological investigation levels (EILs) have been developed to assess the risk for the presence of metals and organic substance in a terrestrial ecosystem. EILs are guided by land-use scenarios, specific soil physicochemical properties and generally apply to the top 2m of soil. The NEPM Soil Quality Guidelines (SQG) for EILs are calculated using the Added Contamination Limit (ACL) to determine the amount of contamination that had to be added to the soil to cause toxicity, including ambient background concentration (ABC).

Table 8. Generic EIL

Assessment Criteria	NEPM 2013 Soil Generic EIL for Urban Residential and Public Open Space, mg/kg
Metals	
Arsenic, As	100
Lead, Pb	1100
Pesticides	
DDT	180
Polycyclic Aromatic Hydrocarbons	

Naphthalene	170
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9.4 NEPM Ecological Screening Level (ESL) – Urban Residential and Public Open Space

ESLs have been developed for selected petroleum hydrocarbons (BTEX, benzo(a)pyrene, TRH F1 and F2) in soil, based on fresh contamination. These parameters are applicable to coarse and fine-grained soil and apply from the surface of the soil to 2m bgl, which corresponds with the root and habitat zone for many species.

Table 9. ESL

Assessment Criteria	NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces, Fine-Grained Soil, mg/kg
Monocyclic Aromatic Hydrocarbons	
Benzene	65
Toluene	105
Ethylbenzene	125
Xylenes	45
Polycyclic Aromatic Hydrocarbons	
BaPyr (BaP)	0.7
Total Recoverable Hydrocarbons	
TRH C6-C10	180
TRH >C10-C16	120
TRH >C16-C34 (F3)	1,300
TRH >C34-C40 (F4)	5,600

9.5 NEPM Management Limits – Residential, Parkland and Public Open Space

Management Limits for petroleum have been developed for prevention of explosive vapour accumulation, prevention of the formation of observable Light Non-Aqueous Phase Liquids (LNAPL) and protection against effects on buried infrastructure. Residential, parkland and public open space limits have been adopted based on the proposed land use.

Table 10. Management Limits

Assessment Criteria	NEPM 2013 Management Limits for Residential, Parkland and Public Open Space, Fine-Grained Soil, mg/kg
Total Recoverable Hydrocarbons	
TRH C6-C10	800
TRH >C10-C16	1,000
TRH >C16-C34 (F3)	3,500
TRH >C34-C40 (F4)	10,000

9.6 NEPM Health Screening Level B (HSL-B) – Residential for Asbestos

The assessed soil must not contain Asbestos Containing Materials (ACM) in the excess of 0.01%w/w and surface soil within the site must be free of visible ACM, Asbestos Fines (AF) and Fibrous Asbestos (FA).

Table 11. HSL-A

Assessment Criteria	NEPM 2013 Health Screening Level for Residential B, w/w
Asbestos	
Bonded ACM	0.04%
FA and AF (friable asbestos)	0.001%
All forms of asbestos	No visible asbestos for surface soils

As part of this investigation, a comprehensive examination for asbestos was not conducted. Instead, a conservative approach was taken as an initial screening method.

10. Sampling and Analysis Plan

10.1 Sampling Rationale

Table 12. Sampling Rationale

Sampling Criteria	Chosen Approach	Justification
Sampling Pattern	Judgmental	This pattern was selected due to the area of the site, access to underlying soil, the AEC and CoPC as well as the potential heterogeneity of any contamination.
Sampling Density	2021: 21 soil samples were obtained from 14 borehole locations. 2025: 8 soil samples from 6 test pits	This sampling density was selected based on the extent of the potential contaminated area to be detected, feasibility, the site history, distribution of current and historical uses onsite, location and condition of structures.
QA/QC Samples	2021: five (5) field duplicate: D1 (BH1.2), D2 (BH5.2), D3 (BH9.1), D4 (BH10), and D5 (BH12.2) 2025: field duplicate: D1 (BH15.1), One (1) trip blank. One (1) trip spike.	QA/QC sampling was undertaken in general accordance with specifications outlined in Australian Standards (AS) 4482.1-2005, Standard Guide to the Investigation and Sampling of Sites with Potentially Contaminated Soil and NEPM 2013 Schedule B2; <i>Guideline on Site Characterisation</i> .

Sampling Depths	Shallow sample within top of fill layer: 0-0.5m bgl. Deeper sample from natural soil: >0.5m bgl.	These depths were selected in compliment with sampling density and to target depths of potential contaminants. Additionally, soil layer thickness was considered when determining these depths.
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10.2 Field Sampling Methodology

In 2021 DSI sampling was conducted using flight auger. In 2025 Supplementary DSI test pits were excavated using a hand shovel. The samples were collected using clean nitril gloves and placed into laboratory 250mL sample jars.

The equipment was decontaminated with detergent and deionised water between sample collection. Samples were stored on ice in an esky while onsite and in transit to a NATA accredited laboratory for the analysis of the CoPC under Chain of Custody (COC) documentation. Collection of samples and signing under the COC was undertaken by NEO Consulting Pty Ltd, an affiliate of GCA.

Test pit logs are provided in **Appendix D**.

Groundwater sampling was undertaken using the micro-purging method with a low-flow pump and a water quality meter. Prior to micro-purging, the following preparatory steps were conducted:

- Photoionisation Detector (PID) Screening: Conducted immediately after opening the well cap to assess potential volatile vapour emissions.
- Water Table Measurement: Measured using an interface probe to determine the depth to groundwater.
- Visual Assessment for Phase-Separated Hydrocarbons (PSH): Performed using a transparent High-Density Polyethylene (HDPE) bailer to identify any free-phase hydrocarbons.
- Initial Purging: Conducted using the bailer, with approximately ten bailer volumes removed from each well to ensure representative sampling.

Following the initial purge, micro-purging was carried out using a low-flow pump until stabilisation of field physico-chemical parameters (pH, temperature, dissolved oxygen, conductivity, turbidity, and redox potential) was achieved. Once parameters had stabilised, groundwater samples were collected from the mid-screen interval using the low-flow pump. Samples were transferred with minimal aeration into appropriately preserved sample containers for laboratory analysis.

Table 13. Groundwater Micro-Purging Information

Well ID	Total Depth (m)	Depth to Groundwater (m)	Temp (C)	pH	EC (µs/cm)	Field Redox Potential (mV)	Dissolved Oxygen (%)	PID (ppm)	Odour
MW1	8.4	4.98	19.0	4.49	723	126.6	13.6	0	No
MW2	7.73	4.77	20.4	5.01	509	122.8	17.2	0	No
MW3	6.12	3.52	21	5.97	568	118.7	64.1	0	No

10.3 Laboratory Testing Program

Table 14. Laboratory Testing Program

Sample	Analyses
2021: All soil samples	TRH, BTEX, PAH, OCP/OPP Metals, and Asbestos
2025: All soil samples	TRH, BTEX, PAH, Metals
2025: BH15.1, BH16, BH17, BH18, BH19 and BH20.1	OCP/OPP, PCBs and Asbestos
Groundwater samples	TRH, BTEX, PAH, Metals
Trip blank and Trip spike	BTEX

10.4 Quality Assurance & Quality Control Procedures

Table 15. The Following Procedures were Undertaken to Ensure the Data Quality for Each Sample

	Measure	Purpose
Field	Collection of intra-laboratory samples	To measure the difference in contamination between a primary and duplicate sample.
	Decontamination procedures	Prevent cross contamination between samples.
	Appropriate preservation and storage measures	Prevent cross contamination and analyte loss for volatile compounds.
	Statement of duplicate frequency	To measure variations in contamination concentration.
	Field instrument calibrations	Ensure valid results from instruments through routine calibration.
Laboratory	Chain-of-custody procedures	A copy of signed chain-of-custody forms acknowledging receipt date, time and temperature and identity of samples included in shipments will ensure validity of results.
	Record of holding times	To ensure samples are analysed within reasonable window of receipt to prevent analyte loss for volatile compounds.
	Matrix spikes (MS)	Indicate percentage of recovery of a known concentration for a spike in field sub-sample to measure recovery.
	Laboratory Control Sample (LCS)	Reference used throughout the full method process from extraction to injection to measure recovery of analytes.
	Relative Percentage Differences (RPD)	Calculation of laboratory performance for the analytical method using duplicates.

11. Data Quality Objectives (DQO)

The Data Quality Objectives (DQO) have been developed in accordance with the NEPM Appendix B of Schedule B2 and provide the type, quantity, and quality of data to support decisions regarding the environmental conditions of this site.

Table 16. Data Quality Objectives Steps 1 to 7

Step 1: State the problem	The proposed development includes the demolition of all existing onsite structures and the construction of multi-level mixed use building over three (3) level basement car park. Ground disturbance is considered likely, and therefore, contamination condition of underlying soil is required to be understood.
Step 2: Identify the decision	Site characterisation is required for the site to be considered suitable for its intended land use as a scout building. The decisions required to meet these goals are as follows: • Is the sample design appropriate to achieve the aim of the Supplementary DSI? • Is onsite contamination capable of migrating offsite? • Are there any unacceptable risks to the future onsite or offsite receptors in the soil or groundwater following remediation? • Is the site suitable for its intended land use?
Step 3: Identify inputs into the decision	Identification of issues of potential environmental concern; • Judgemental soil sampling undertaken in targeted areas of the site; • Appropriate QA/QC to enable an evaluation of the reliability of the analytical data; and • Screening sampler analytical results compared with Residential (B) Assessment Criteria for the intended land use.
Step 4: Define the boundaries of the study	The project boundaries are: • Lateral boundary: The legally defined area of the site; • Vertical boundary: The soil interface to the maximum depth reached during sampling; and • Temporal boundary: Constrained to a single visit to the site.
Step 5: Develop the analytical approach	The integration of the information from steps 1 to 4 support and justify the proposed analytical approach. The aim is to confirm if the site is suitable for the proposed development. If the SAQP identifies; • Any exceedance of the adopted NEPM Residential (B) Assessment Criteria for soil; • Professional opinion that further assessment is required; • Adopted RPD (30% difference for all analytes) for QC data not met; • if RPDs of matrix spikes, surrogates and laboratory control samples are outside acceptable limits. Further assessment may be required to confirm suitability of the site for use.
Step 6: Specify performance or acceptance criteria	To determine if the soils are within acceptable ranges, the following NEPM criteria is applied: • Acceptable recovery on all surrogate spikes used in laboratory analyses; • Acceptable analytical method to ensure detection limit appropriate for all analytes; • If these conditions are not met, then chemical analysis will require re-testing for all samples with fresh aliquot.

Step 7: Develop the plan for obtaining data	Judgemental sampling pattern will provide suitable coverage of the site to produce reliable data in alignment with the Data Quality Indicators (DQIs) to cover precision, accuracy, representativeness, completeness and comparability (PARCC).
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12. Analytical Results

12.1 Soil Analytical Results

Analytical results indicate that there are no exceedances of the NEPM 2013 Health and Ecological Assessment Criteria for Residential (B) sites.

Soil analytical results are provided in **Appendix B**.

12.2 Groundwater Analytical Results

Analytical results indicate that there are no exceedances of the NEPM 2013 Health and Ecological Assessment Criteria for organic contaminants. Several exceedances of the GIL for freshwater were observed for metals such as cadmium, copper, nickel, and zinc. These exceedances are attributable to the area's geological characteristics and do not indicate a contamination incident.

Groundwater analytical results are provided in **Appendix B**.

12.3 QA/QC Sample Analytical Results

The following soil QA/QC samples were undertaken for the site:

- Intra-laboratory samples:
 - Duplicate 1: primary sample BH15.1;
 - Trip spike; and
 - Trip blank.

All QA/QC sample results were within acceptable ranges.

Table 17. Intra Laboratory Samples

Analytes	Relative Percentage Difference (RPD)
	Duplicate 1
Total Organics	<50%
Total Inorganics	<30%

Table 18. Trip Blank and Spike

Sample	Response Acceptability Limit
Trip Spike	<LOR
Trip Blank	104-105%

13. Data Quality Indicators (DQIs)

Table 19. Field Data Quality Indicators

Completeness	• All critical locations sampled with GPS co-ordinates; • Correct documentation and COC procedures undertaken; • Collection during a single visit to the site. Based on the completion of these considerations, the percentage of usable data can be calculated. All considerations have been met therefore all data generated (laboratory-based) is applicable to site characterisation (100%).
Comparability	• Uniform methods for sample collection including collection equipment and decontamination procedures; • Correct volume of soil per sample; • Climatic and physical conditions at the time of sample collection were observed. These considerations provide qualitative confidence that the data reflects the site conditions. Sample collection was undertaken during a period of moderate rainfall; therefore, distribution of contaminants may be altered by these conditions.
Representativeness	• Appropriate sample collection; • Fill and natural layers sampled for analysis; • Samples were homogenised during collection. These considerations provide qualitative confidence that the data reflects the site conditions. Sample collection satisfied these considerations and are reflective of site conditions.
Precision	• One (1) field duplicate. • One (1) trip blank. • One (1) trip Spike. Field QA/QC samples provide a quantitative measure of laboratory precision and laboratory QA/QC samples provide a quantitative measure of analytical precision. These data measure variability between samples.
Accuracy	• Correct documentation and COC procedures undertaken including appropriate transportation; • Collection during a single visit to the site; • Decontamination procedures undertaken between each sample collection. These considerations provide a quantitative measure of bias within the dataset (following laboratory analyses). Field work processes to mitigate bias were undertaken, analytical results will provide measure of accuracy of these processes.

Table 20. Laboratory Data Quality Indicators

Completeness	• Correct documentation and COC procedures undertaken; • Analysis of appropriate analytes; • Implementation of appropriate extraction and instrument methods; • Samples were received, extracted and injected within specified holding times. These considerations were undertaken and allows the percentage of usable data was calculated. Along with the field-based <i>Completeness</i> (100%), the dataset can be considered complete (100%).
Comparability	• Appropriate extraction methods and analytical methods, including instrument calibration and Practical Quantification Limits (PQL); • Justify and quantify differences in analytical results. These considerations provide qualitative confidence that the data reflects the site conditions. All considerations were undertaken. RPDs were within acceptable ranges.
Representativeness	• Correct documentation and COC procedures undertaken; • Implementation of appropriate extraction and instrument methods; • Samples received, extracted and injected within specified holding times; • Internal methods ensure detection of laboratory artefacts including contaminated extraction equipment, cross-contamination events. These considerations provide qualitative confidence that the data reflects the site conditions. All considerations were undertaken.
Precision	• Analysis of: ○ Intra-laboratory samples. ○ Method blank. ○ Matrix and surrogate spikes. Laboratory QA/QC samples provide a quantitative measure of analytical precision. These data measure variability between samples. Recoveries on all surrogates and blanks were within acceptable ranges. RPDs for the intra-laboratory sample were within acceptable ranges.
Accuracy	• Analysis of: ○ Intra-laboratory samples. ○ Method blank. ○ Matrix and surrogate spikes. • Spikes chosen based on appropriateness to avoid coelution with contaminants indigenous to the samples and across varying retention times to map response factor; • Blanks and intra-laboratory sample analyses included with the primary sample run to account for analytical instrument calibration. These considerations provide a quantitative measure of bias within the dataset. Recoveries on all surrogates and blanks were within acceptable ranges. RPDs for the intra-laboratory sample were within acceptable ranges.

14. Data Gaps

The following data gaps have been identified at the site:

- The potential presence of hazardous materials within the onsite buildings;
- The condition of soils beneath the onsite buildings; and
- The classification of fill material, particularly in the context of the proposed bulk excavation for the basement car park.

15. Conclusion

A review of historical aerial imagery indicates that the site was used for rural residential purposes prior to 1955, with evidence of limited market gardening activities. Since at least 1965, the site has been developed for commercial use. The existing buildings were constructed around that time and have remained largely unchanged since.

Analytical results indicate that there are no exceedances of the NEPM 2013 Human Health and Ecological Assessment Criteria for Residential (B) land use.

Based on the site investigation and analytical results, GCA finds that the site is suitable for the proposed development, provided the recommendations within **Section 16** are undertaken.

16. Recommendations

Based on the information collected and available during this investigation, the following recommendations have been made:

- All structures onsite should have a Hazardous Materials Survey (HMS) conducted by a qualified occupational hygienist and/or environmental consultant for the site prior to any demolition or renovation works in accordance with relevant Australian Standards, SafeWork NSW codes of practice and any other applicable requirements;
 - If ACM confirmed by the HMS, then following is required:
 - An Asbestos Removal Management Plan (ARMP); The ARMP should address the removal of surface Asbestos contamination near onsite structures.
 - The removal works will require a Class A or Class B licensed removal contractor;
 - Reporting on transport and management of asbestos waste in accordance with EPA Part 7 of the Protection of the Environment Waste Regulation 2017; and
 - A clearance inspection and clearance certificate will be required post demolition by a licensed asbestos assessor under clauses 473 & 474 of NSW Work Health and Safety Regulations 2017.
- The demolition of structures and excavation activity onsite be undertaken in accordance with relevant Australian Standards, SafeWork NSW codes of practice and any other applicable requirements;
- After demolition of onsite buildings Fill material onsite must be classified in accordance with "Waste Classification Guidelines Part 1: Classifying Waste" NSW EPA (2014);
- Prior to commencement of bulk excavation underlying natural soils must be classified in accordance with Resource "Recovery Order under Part 9, Clause 93 of the Protection of the Environment Operations (Waste) Regulation" NSW EPA (2014);
- A site specific 'Unexpected Finds Protocol' is to be made available for reference for all occupants and/or site workers in the event unanticipated contamination is discovered.

Limitations

The findings of this report are based on the scope of work outlined in Section 2. GCA performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental consulting profession. No warranties, express or implied are made.

The results of this assessment are based upon the information documented and presented in this report. All conclusions and recommendations regarding the site are the professional opinions of GCA personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, GCA assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of GCA, or developments resulting from situations outside the scope of this project.

The results of this assessment are based on the site conditions identified at the time of the site inspection and validation sampling. GCA will not be liable to revise the report to account for any changes in site characteristics, regulatory requirements, assessment criteria or the availability of additional information, subsequent to the issue date of this report.

GCA is not engaged in environmental consulting and reporting for the purpose of advertising sales promoting, or endorsement of any client interests, including raising investment capital, recommending investment decisions, or other publicity purposes.

Geotechnical Consultants Australia Pty Ltd (GCA)

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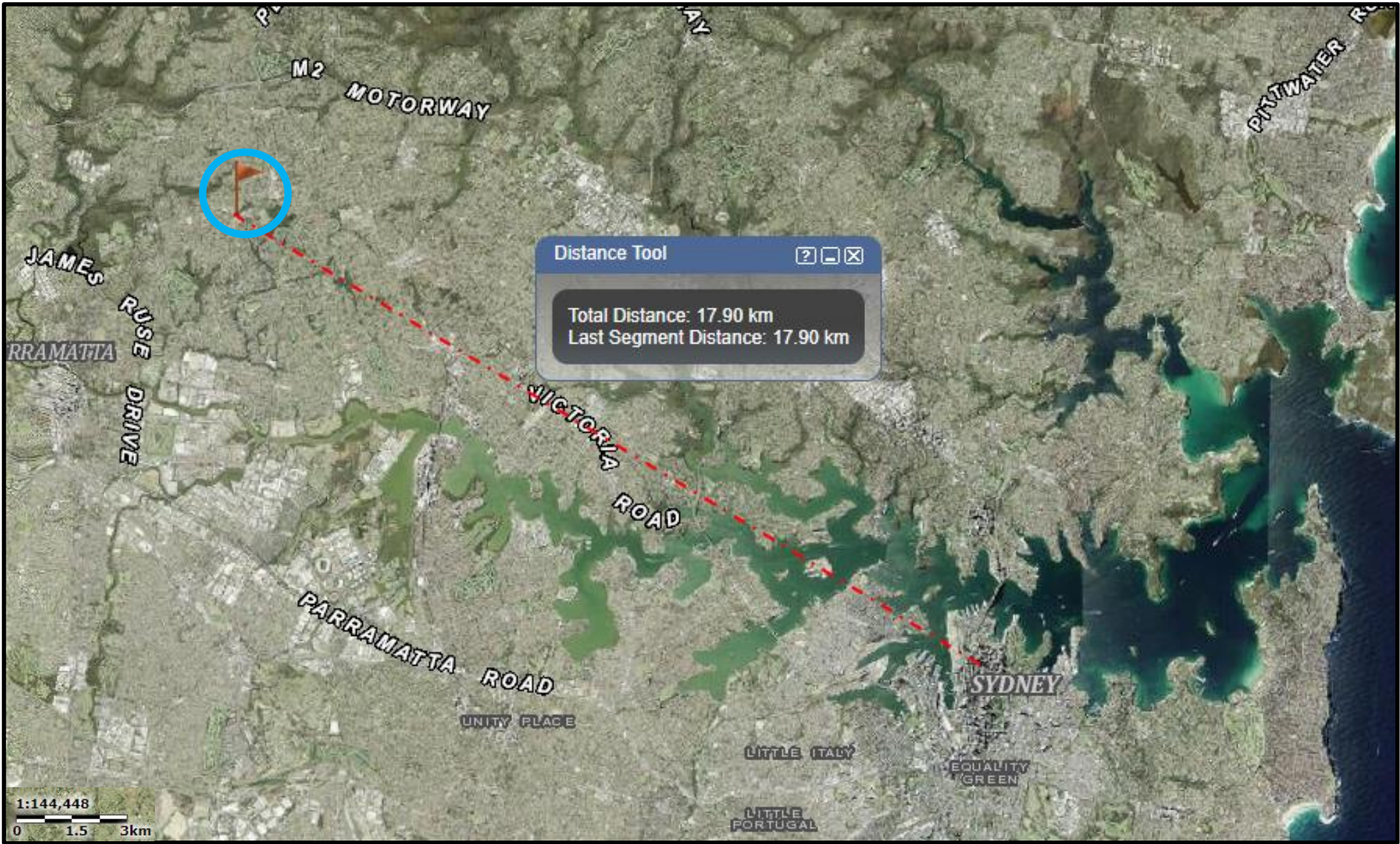
Project Manager

APPENDIX A

Figures and Site Photographic Log



Figure 1. The site is located approximately 17.90km northwest of Sydney CBD.



Source: Six Map

Figure 1	Locality Map
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 2. Sample Locations.

-  2021 Monitoring Well Location
-  2021 Soil Sample Locations
-  2025 Soil Sample Locations

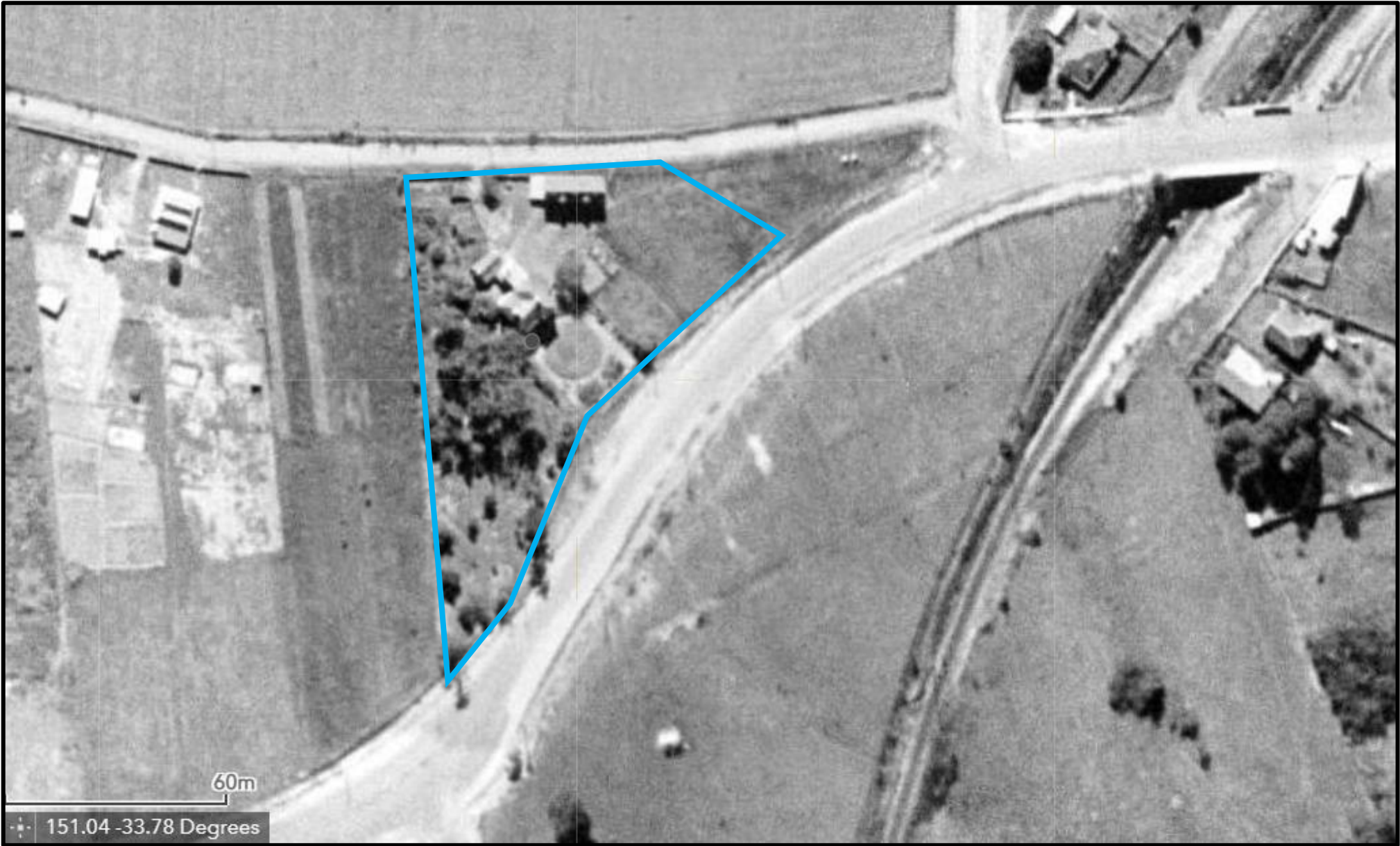


Source: Nearmap

Figure 2	Site Area
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 3. Aerial image of the site and surrounding area 1943.



Source: NSW Historical Imagery

Figure 3	Aerial Image 1943
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 4. Aerial image of the site and surrounding area 1955.



Source: NSW Historical Imagery

Figure 4	Aerial Image 1955
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 5. Aerial image of the site and surrounding area 1965.



Source: NSW Historical Imagery

Figure 5	Aerial Image 1965
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 6. Aerial image of the site and surrounding area 1986.



Source: NSW Historical Imagery

Figure 6	Aerial Image 1986
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 7. Aerial image of the site and surrounding area 2005.



Source: NSW Historical Imagery

Figure 7	Aerial Image 2005
Project	241-245 Pennant Hills Road, Carlingford NSW 2118



Figure 8. Entrance driveway within eastern portion of the site.



Figure 9. Parking area within eastern portion of the site.



Figure 10. Driveway and parking area within northeastern portion of the site.



Figure 11. Parking area within northern portion of the site.



Figure 12. Driveway within northwestern portion of the site.



Figure 13. Entrance gate within northwestern portion of the site



Figure 14. Southwestern portion of the site.



Figure 15. Lawn area within southern portion of the site.



Figure 16. Lawn area within southeastern portion of the site.



Figure 17. Entrance to the gym within eastern portion of the site.



Figure 18. Test pit excavation and sampling of BH20.



Figure 19. Micro-purging and sampling of MW2.

APPENDIX B

Laboratory Results and Chain of Custody

Table 21. Total Recoverable Hydrocarbon (TRH) analytical results. Values are presented as mg/kg. NL = Not Limiting.

Assessment Criteria		TRH C ₆ -C ₁₀	TRH C ₆ -C ₁₀ - BTEX (F1)	TRH >C ₁₀ -C ₁₆	TRH >C ₁₀ -C ₁₆ - N (F2)	TRH >C ₁₆ -C ₃₄ (F3)	TRH >C ₃₄ -C ₄₀ (F4)
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 0-<1m depth, Clay, mg/kg			50		280		
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 1-<2m depth, Clay, mg/kg			90		NL		
NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces for fine-grained soil, mg/kg		180		120		1300	5600
NEPM 2013 Management Limits for Residential, Parkland and Public Open Space for fine-grained soil, mg/kg		800		1000		3500	10 000
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2021							
BH1.1	0.2-0.3	<25	<25	<25	<25	210	<120
BH1.2	0.9-1.0	<25	<25	<25	<25	<90	<120
BH2	0.4-0.5	<25	<25	<25	<25	<90	<120
BH3.1	0.3-0.4	<25	<25	<25	<25	<90	<120
BH3.2	1.1-1.2	<25	<25	<25	<25	<90	<120
BH4	0.4-0.5	<25	<25	<25	<25	110	<120
BH5.1	0.4-0.5	<25	<25	<25	<25	<90	<120
BH5.2	1.1-1.2	<25	<25	<25	<25	<90	<120
BH6	0.4-0.5	<25	<25	<25	<25	<90	<120
BH7.1	0.3-0.4	<25	<25	<25	<25	<90	<120
BH7.2	0.6-0.7	<25	<25	<25	<25	<90	<120
BH8	0.3-0.4	<25	<25	<25	<25	<90	<120
BH9.1	0.2-0.3	<25	<25	<25	<25	<90	<120
BH9.2	0.9-1.0	<25	<25	<25	<25	<90	<120
BH10	0.4-0.5	<25	<25	<25	<25	<90	<120
BH11	0.4-0.5	<25	<25	<25	<25	<90	<120
BH12.1	0.4-0.4	<25	<25	<25	<25	<90	<120
BH12.2	1.4-1.5	<25	<25	<25	<25	<90	<120
BH13	0.4-0.5	<25	<25	<25	<25	<90	<120
BH14.1	0.2-0.3	<25	<25	<25	<25	<90	<120
BH14.2	0.7-0.8	<25	<25	<25	<25	34	<120
D1	0.9-1.0	<25	<25	<25	<25	<90	<120
D2	1.1-1.2	<25	<25	<25	<25	<90	<120
D3	0.2-0.3	<25	<25	<25	<25	<90	<120
D4	0.4-0.5	<25	<25	<25	<25	<90	<120
D5	1.1-1.5	<25	<25	<25	<25	<90	<120

2025							
BH15.1	0.1-0.2	<25	<25	<25	<25	<90	<120
BH15.2	0.5-0.6	<25	<25	<25	<25	<90	<120
BH16	0.1-0.2	<25	<25	<25	<25	<90	<120
BH17	0.2-0.3	<25	<25	<25	<25	<90	<120
BH18	0.2-0.3	<25	<25	<25	<25	<90	<120
BH19	0-0.1	<25	<25	<25	<25	<90	<120
BH20.1	0-0.1	<25	<25	<25	<25	<90	<120
BH20.2	0.2-0.3	<25	<25	<25	<25	<90	<120
D1	0.1-.2	<25	<25	<25	<25	<90	<120

Table 22. Benzene, Toluene, Ethylbenzene and Xylene (BTEX) analytical results. Values are presented as mg/kg. NL = Not Limiting.

Assessment Criteria		Benzene	Toluene	Ethylbenzene	Xylenes
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 0-<1m depth, Clay, mg/kg		0.7	480	NL	110
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 1-<2m depth, Clay, mg/kg		1	NL	NL	310
NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces for Fine-grained soil, mg/kg		65	105	125	45
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg
2021					
BH1.1	0.2-0.3	<0.1	<0.1	<0.1	<0.3
BH1.2	0.9-1.0	<0.1	<0.1	<0.1	<0.3
BH2	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH3.1	0.3-0.4	<0.1	0.2	<0.1	<0.3
BH3.2	1.1-1.2	<0.1	<0.1	<0.1	<0.3
BH4	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH5.1	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH5.2	1.1-1.2	<0.1	<0.1	<0.1	<0.3
BH6	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH7.1	0.3-0.4	<0.1	<0.1	<0.1	<0.3
BH7.2	0.6-0.7	<0.1	<0.1	<0.1	<0.3
BH8	0.3-0.4	<0.1	<0.1	<0.1	<0.3
BH9.1	0.2-0.3	<0.1	<0.1	<0.1	<0.3
BH9.2	0.9-1.0	<0.1	<0.1	<0.1	<0.3
BH10	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH11	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH12.1	0.4-0.4	<0.1	<0.1	<0.1	<0.3
BH12.2	1.4-1.5	<0.1	<0.1	<0.1	<0.3
BH13	0.4-0.5	<0.1	<0.1	<0.1	<0.3
BH14.1	0.2-0.3	<0.1	<0.1	<0.1	<0.3
BH14.2	0.7-0.8	<0.1	<0.1	<0.1	<0.3
D1	0.9-1.0	<0.1	<0.1	<0.1	<0.3
D2	1.1-1.2	<0.1	<0.1	<0.1	<0.3
D3	0.2-0.3	<0.1	<0.1	<0.1	<0.3
D4	0.4-0.5	<0.1	<0.1	<0.1	<0.3
D5	1.1-1.5	<0.1	<0.1	<0.1	<0.3
2025					
BH15.1	0.1-0.2	<0.1	<0.1	<0.1	<0.3

BH15.2	0.5-0.6	<0.1	<0.1	<0.1	<0.3
BH16	0.1-0.2	<0.1	<0.1	<0.1	<0.3
BH17	0.2-0.3	<0.1	<0.1	<0.1	<0.3
BH18	0.2-0.3	<0.1	<0.1	<0.1	<0.3
BH19	0-0.1	<0.1	<0.1	<0.1	<0.3
BH20.1	0-0.1	<0.1	<0.1	<0.1	<0.3
BH20.2	0.2-0.3	<0.1	<0.1	<0.1	<0.3
D1	0.1-0.2	<0.1	<0.1	<0.1	<0.3
TS	-	[105%]	[105%]	[105%]	[104%]
TB	-	<0.1	<0.1	<0.1	<0.3

Table 23. Polycyclic Aromatic Hydrocarbon (PAH) analytical results. (N.A. = Not Analysed)

Assessment Criteria		Naphthalene	Benzo(a)pyrene	Carcinogenic PAH (as BaP TEQ)	Total PAH (18)	PCBs
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 0-<1m depth, Clay, mg/kg		5				
NEPM 2013 Residential Soil HSL-B for Vapour Intrusion, 1-<2m depth, Clay, mg/kg		NL				
NEPM 2013 Soil Generic EIL for Residential, mg/kg		170				
NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces for Fine-grained soil, mg/kg			0.7			
NEPM 2013 Residential Soil HIL-B, mg/kg			1.00 TEF			
Sample	Depth (m)	mg/kg	mg/kg	TEQ (mg/kg)	mg/kg	mg/kg
2021						
BH1.1	0.2-0.3	0.2	5.2	9.6	65	N.A.
BH1.2	0.9-1.0	<0.1	0.3	0.6	3.9	N.A.
BH2	0.4-0.5	<0.1	<0.1	<0.2	<0.8	N.A.
BH3.1	0.3-0.4	<0.1	0.1	0.2	1.6	N.A.
BH3.2	1.1-1.2	<0.1	0.2	0.4	2.5	N.A.
BH4	0.4-0.5	<0.1	2.8	5.1	41	N.A.
BH5.1	0.4-0.5	<0.1	<0.1	<0.2	<0.8	N.A.
BH5.2	1.1-1.2	<0.1	<0.1	<0.2	<0.8	N.A.
BH6	0.4-0.5	<0.1	0.1	0.2	1.0	N.A.
BH7.1	0.3-0.4	<0.1	0.2	0.2	1.6	N.A.
BH7.2	0.6-0.7	<0.1	<0.1	<0.2	<0.8	N.A.
BH8	0.3-0.4	<0.1	<0.1	<0.2	<0.8	N.A.
BH9.1	0.2-0.3	<0.1	<0.1	<0.2	<0.8	N.A.
BH9.2	0.9-1.0	<0.1	<0.1	<0.2	<0.8	N.A.
BH10	0.4-0.5	<0.1	<0.1	<0.2	<0.8	N.A.
BH11	0.4-0.5	<0.1	<0.1	<0.2	<0.8	N.A.
BH12.1	0.4-0.4	<0.1	0.1	0.2	1.5	N.A.
BH12.2	1.4-1.5	<0.1	<0.1	<0.2	<0.8	N.A.
BH13	0.4-0.5	<0.1	0.2	0.3	1.7	N.A.
BH14.1	0.2-0.3	<0.1	0.1	<0.2	<0.8	N.A.
BH14.2	0.7-0.8	<0.1	0.2	0.3	1.8	N.A.
D1	0.9-1.0	<0.1	<0.1	<0.2	<0.8	N.A.
D2	1.1-1.2	<0.1	<0.1	<0.2	<0.8	N.A.
D3	0.2-0.3	<0.1	<0.1	<0.2	<0.8	N.A.
D4	0.4-0.5	<0.1	<0.1	<0.2	<0.8	N.A.
D5	1.1-1.5	<0.1	<0.1	<0.2	<0.8	N.A.

2025						
BH15.1	0.1-0.2	<0.1	<0.1	<0.3	<0.8	<0.1
BH15.2	0.5-0.6	<0.1	<0.1	<0.3	<0.8	<0.1
BH16	0.1-0.2	<0.1	0.1	<0.3	1.4	<0.1
BH17	0.2-0.3	<0.1	<0.1	<0.3	<0.8	<0.1
BH18	0.2-0.3	<0.1	<0.1	<0.3	<0.8	<0.1
BH19	0-0.1	<0.1	<0.1	<0.3	<0.8	<0.1
BH20.1	0-0.1	<0.1	<0.1	<0.3	<0.8	<0.1
BH20.2	0.2-0.3	<0.1	<0.1	<0.3	<0.8	<0.1
D1	0.1-.2	<0.1	<0.1	<0.3	<0.8	N.A.

Table 24. Pesticides analytical results. (N.A. = Not Analysed)

NEPM Assessment Criteria		HCB	Heptachlor	Chlordane	Aldrin & Dieldrin	Endrin	DDT	DDT+DDE+DDT	Endosulfan	Methoxychlor	Mirex
NEPM 2013 Residential Soil HIL-B, mg/kg		15	10	90	10	20		600	400	500	20
NEPM 2013 Soil Generic EIL for Urban Residential and Public Open Space, mg/kg							180				
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2021											
BH1.1	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH1.2	0.9-1.0	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH2	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH3.1	0.3-0.4	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH3.2	1.1-1.2	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH4	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH5.1	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH5.2	1.1-1.2	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH6	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH7.1	0.3-0.4	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH7.2	0.6-0.7	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH8	0.3-0.4	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH9.1	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH9.2	0.9-1.0	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH10	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH11	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH12.1	0.4-0.4	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH12.2	1.4-1.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH13	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH14.1	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH14.2	0.7-0.8	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D1	0.9-1.0	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D2	1.1-1.2	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D3	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D4	0.4-0.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D5	1.1-1.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
2025											
BH15.1	0.1-0.2	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH15.2	0.5-0.6	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH16	0.1-0.2	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH17	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH18	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH19	0-0.1	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH20.1	0-0.1	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH20.2	0.2-0.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
D1	0.1-2	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Table 25. Heavy Metal analytical results. Values are presented as mg/kg.

Assessment Criteria		Arsenic, As	Cadmium, Cd	Chromium, Cr	Copper, Cu	Lead, Pb	Nickel, Ni	Zinc, Zn	Mercury, Hg
NEPM 2013 Residential Soil HIL-B, mg/kg		500	150	500	30 000	1200	1200	60 000	120
NEPM 2013 Soil Generic EIL for Urban Residential and Public Open Space, mg/kg		100				1100			
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
2021									
BH1.1	0.2-0.3	6	<0.3	14	24	120	6.6	84	0.08
BH1.2	0.9-1.0	3	<0.3	11	36	35	7.1	47	<0.05
BH2	0.4-0.5	8	<0.3	16	13	27	3.3	15	<0.05
BH3.1	0.3-0.4	7	<0.3	15	23	200	7.1	56	<0.05
BH3.2	1.1-1.2	7	<0.3	13	31	170	6.6	59	<0.05
BH4	0.4-0.5	6	<0.3	14	17	140	7.5	76	<0.05
BH5.1	0.4-0.5	4	<0.3	14	16	20	4.6	16	<0.05
BH5.2	1.1-1.2	4	<0.3	16	23	23	2.6	17	<0.05
BH6	0.4-0.5	5	<0.3	13	18	68	5.5	55	0.07
BH7.1	0.3-0.4	6	<0.3	12	25	35	5.3	41	<0.05
BH7.2	0.6-0.7	4	<0.3	18	11	19	4.5	12	<0.05
BH8	0.3-0.4	3	<0.3	8.4	15	23	4.0	30	<0.05
BH9.1	0.2-0.3	6	<0.3	18	26	27	19	25	<0.05
BH9.2	0.9-1.0	6	<0.3	15	20	28	4.8	17	<0.05
BH10	0.4-0.5	5	<0.3	17	31	22	11	19	<0.05
BH11	0.4-0.5	4	<0.3	14	17	24	6.2	20	<0.05
BH12.1	0.4-0.4	5	<0.3	16	17	39	4.2	34	<0.05
BH12.2	1.4-1.5	2	<0.3	6.4	24	16	4.1	26	<0.05
BH13	0.4-0.5	4	<0.3	12	28	51	6.5	66	0.10
BH14.1	0.2-0.3	5	<0.3	18	30	63	9.9	62	0.10
BH14.2	0.7-0.8	5	<0.3	14	30	59	8.1	61	0.07
D1	0.9-1.0	2	<0.3	7.4	29	31	5.7	30	<0.05
D2	1.1-1.2	4	<0.3	14	16	19	1.3	10	<0.05
D3	0.2-0.3	5	<0.3	15	25	42	7.6	23	<0.05
D4	0.4-0.5	5	<0.3	17	24	20	3.8	15	<0.05
D5	1.1-1.5	2	<0.3	5.7	22	14	4.0	24	<0.05
2025									
BH15.1	0.1-0.2	5	<0.3	14	19	340	5.0	56	0.06
BH15.2	0.5-0.6	5	<0.3	15	17	73	4.1	32	<0.05
BH16	0.1-0.2	5	<0.3	16	21	110	4.0	61	0.08
BH17	0.2-0.3	2	<0.3	5.6	16	18	3.4	33	<0.05
BH18	0.2-0.3	2	<0.3	63	16	36	4.2	28	0.07
BH19	0-0.1	6	<0.3	10	19	76	4.4	48	0.06
BH20.1	0-0.1	4	<0.3	11	23	52	4.4	56	<0.05
BH20.2	0.2-0.3	3	<0.3	8.8	19	45	3.7	51	<0.05
D1	0.1-1.2	4	<0.3	14	21	410	4.8	55	0.08

Table 26. Asbestos analytical results. (N.A. = Not Analysed)

Assessment Criteria		Detection	ACM	AF/FA
NEPM 2013 Residential Soil HSL-B		Yes/No	0.04%w/w	0.001%w/w
Sample	Depth (m)			
2021				
BH1.1	0.2-0.3	No	<0.01%w/w	N.A.
BH1.2	0.9-1.0	No	<0.01%w/w	N.A.
BH2	0.4-0.5	No	<0.01%w/w	N.A.
BH3.1	0.3-0.4	No	<0.01%w/w	N.A.
BH3.2	1.1-1.2	No	<0.01%w/w	N.A.
BH4	0.4-0.5	No	<0.01%w/w	N.A.
BH5.1	0.4-0.5	No	<0.01%w/w	N.A.
BH5.2	1.1-1.2	No	<0.01%w/w	N.A.
BH6	0.4-0.5	No	<0.01%w/w	N.A.
BH7.1	0.3-0.4	No	<0.01%w/w	N.A.
BH7.2	0.6-0.7	No	<0.01%w/w	N.A.
BH8	0.3-0.4	No	<0.01%w/w	N.A.
BH9.1	0.2-0.3	No	<0.01%w/w	N.A.
BH9.2	0.9-1.0	No	<0.01%w/w	N.A.
BH10	0.4-0.5	No	<0.01%w/w	N.A.
BH11	0.4-0.5	No	<0.01%w/w	N.A.
BH12.1	0.4-0.4	No	<0.01%w/w	N.A.
BH12.2	1.4-1.5	No	<0.01%w/w	N.A.
BH13	0.4-0.5	No	<0.01%w/w	N.A.
BH14.1	0.2-0.3	No	<0.01%w/w	N.A.
BH14.2	0.7-0.8	No	<0.01%w/w	N.A.
D1	0.9-1.0	No	<0.01%w/w	N.A.
D2	1.1-1.2	No	<0.01%w/w	N.A.
D3	0.2-0.3	No	<0.01%w/w	N.A.
D4	0.4-0.5	No	<0.01%w/w	N.A.
D5	1.1-1.5	No	<0.01%w/w	N.A.
2025				
BH15.1	0.1-0.2	No	<0.01%w/w	N.A.
BH15.2	0.5-0.6	N.A.	N.A.	N.A.
BH16	0.1-0.2	No	<0.01%w/w	N.A.
BH17	0.2-0.3	No	<0.01%w/w	N.A.
BH18	0.2-0.3	No	<0.01%w/w	N.A.
BH19	0-0.1	No	<0.01%w/w	N.A.
BH20.1	0-0.1	No	<0.01%w/w	N.A.
BH20.2	0.2-0.3	N.A.	N.A.	N.A.
D1	0.1-1.2	N.A.	N.A.	N.A.

Table 27. Groundwater analytical results.

NEPM Assessment Criteria	TRH (F1)	TRH (F2)	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Benzo(a)pyrene
NEPM 2013 HSL-B, Clay, µg/L (2-<8m)	6000	NL	5000	NL	NL	NL	NL	NL
NEPM 2013 GIL Fresh Waters, µg/L	-	-	950	-	-	350 as o-x; 200 as p-x	16	-
2021								
MW1	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
MW2	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
MW3	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
MW4	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
2025								
MW1	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
MW2	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1
MW3	<50	<60	<0.5	<0.5	<0.5	<1.5	<0.1	<0.1

NEPM Assessment Criteria	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Zinc	Mercury
NEPM 2013 GIL Fresh Waters, µg/L	24 as As (III), 13 as As(V)	0.2	-	1.4	3.4	11	8	0.06
2021								
MW1	<1	<0.1	2	2	<1	9	48	<0.1
MW2	<1	0.1	2	10	<1	18	130	<0.1
MW3	1	0.3	<1	2	<1	13	66	<0.1
MW4	<1	<0.1	5	4	<1	12	38	<0.1
2025								
MW1	<1	<0.1	<1	3	<1	11	55	0.1
MW2	1	0.2	<1	2	<1	16	110	<0.1
MW3	<1	<0.1	<1	<1	<1	20	42	<0.1

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Project N5482-Soil
Order Number N5482
Samples 26

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SGS Reference SE222853 R0
Date Received 23/8/2021
Date Reported 30/8/2021

COMMENTS

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

A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Industries and Environment recommends supplying approximately 50-100g of sample in a separate container.

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES



Akheeqar BENIAEMEEN
Chemist



Bennet LO
Senior Chemist



Dong LIANG
Metals/Inorganics Team Leader



Huong CRAWFORD
Production Manager



Ly Kim HA
Organic Section Head



Ravee SIVASUBRAMANIAM
Hygiene Team Leader

VOC's in Soil [AN433] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	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
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	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
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	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
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	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
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

VOC's in Soil [AN433] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.021	- 20/8/2021 SE222853.022	- 20/8/2021 SE222853.023	- 20/8/2021 SE222853.024	- 20/8/2021 SE222853.025
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes	mg/kg	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
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	D5
			SOIL
			- 20/8/2021 SE222853.026
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
Total Xylenes	mg/kg	0.3	<0.3
Total BTEX	mg/kg	0.6	<0.6
Naphthalene	mg/kg	0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	D5
			SOIL
			20/8/2021 SE222853.026
TRH C6-C9	mg/kg	20	<20
Benzene (F0)	mg/kg	0.1	<0.1
TRH C6-C10	mg/kg	25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.001	- 20/8/2021 SE222853.002	- 20/8/2021 SE222853.003	- 20/8/2021 SE222853.004	- 20/8/2021 SE222853.005
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	150	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	68	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	210	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	220	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.006	- 20/8/2021 SE222853.007	- 20/8/2021 SE222853.008	- 20/8/2021 SE222853.009	- 20/8/2021 SE222853.010
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	84	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	110	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.011	- 20/8/2021 SE222853.012	- 20/8/2021 SE222853.013	- 20/8/2021 SE222853.014	- 20/8/2021 SE222853.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.016	- 20/8/2021 SE222853.017	- 20/8/2021 SE222853.018	- 20/8/2021 SE222853.019	- 20/8/2021 SE222853.020
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	45	140
TRH C29-C36	mg/kg	45	<45	<45	<45	45	74
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	54
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	54
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	150
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	220
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.021	- 20/8/2021 SE222853.022	- 20/8/2021 SE222853.023	- 20/8/2021 SE222853.024	- 20/8/2021 SE222853.025
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	69	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	47	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	34	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	34	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	120	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	D5
			SOIL
			- 20/8/2021 SE222853.026
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-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
TRH C10-C36 Total	mg/kg	110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Naphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	1.0	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	1.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	7.9	0.3	<0.1	0.2	0.2
Anthracene	mg/kg	0.1	2.9	0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	11	0.9	<0.1	0.4	0.5
Pyrene	mg/kg	0.1	11	0.9	<0.1	0.4	0.5
Benzo(a)anthracene	mg/kg	0.1	5.0	0.3	<0.1	0.1	0.2
Chrysene	mg/kg	0.1	4.5	0.2	<0.1	0.1	0.2
Benzo(b&j)fluoranthene	mg/kg	0.1	5.3	0.3	<0.1	0.1	0.2
Benzo(k)fluoranthene	mg/kg	0.1	2.4	0.2	<0.1	<0.1	0.1
Benzo(a)pyrene	mg/kg	0.1	5.2	0.3	<0.1	0.1	0.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.5	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	3.1	0.2	<0.1	<0.1	0.2
Benzo(ghi)perylene	mg/kg	0.1	2.9	0.2	<0.1	<0.1	0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	9.6	0.6	<0.2	<0.2	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	9.6	0.6	<0.3	<0.3	0.4
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	9.6	0.6	<0.2	0.2	0.4
Total PAH (18)	mg/kg	0.8	65	3.9	<0.8	1.6	2.5
Total PAH (NEPM/WHO 16)	mg/kg	0.8	65	3.9	<0.8	1.6	2.5

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Naphthalene	mg/kg	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
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	0.8	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	0.4	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	6.9	<0.1	<0.1	<0.1	0.1
Anthracene	mg/kg	0.1	2.2	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	7.5	0.1	<0.1	0.3	0.4
Pyrene	mg/kg	0.1	7.3	0.1	<0.1	0.3	0.4
Benzo(a)anthracene	mg/kg	0.1	3.0	<0.1	<0.1	<0.1	0.1
Chrysene	mg/kg	0.1	2.9	<0.1	<0.1	0.1	0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	3.1	<0.1	<0.1	0.1	0.2
Benzo(k)fluoranthene	mg/kg	0.1	1.4	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	2.8	<0.1	<0.1	0.1	0.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	1.5	<0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	1.5	<0.1	<0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	5.1	<0.2	<0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	5.1	<0.3	<0.3	<0.3	0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	5.1	<0.2	<0.2	0.2	0.2
Total PAH (18)	mg/kg	0.8	41	<0.8	<0.8	1.0	1.6
Total PAH (NEPM/WHO 16)	mg/kg	0.8	41	<0.8	<0.8	1.0	1.6

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Naphthalene	mg/kg	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
1-methylnaphthalene	mg/kg	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
Acenaphthene	mg/kg	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
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	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
Benzo(ghi)perylene	mg/kg	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	<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	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Naphthalene	mg/kg	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
1-methylnaphthalene	mg/kg	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
Acenaphthene	mg/kg	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
Phenanthrene	mg/kg	0.1	<0.1	0.2	<0.1	0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.3	0.4	<0.1	0.3	0.2
Pyrene	mg/kg	0.1	0.2	0.4	<0.1	0.3	0.2
Benzo(a)anthracene	mg/kg	0.1	<0.1	0.1	<0.1	0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	0.1	<0.1	0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	0.1	<0.1	0.2	0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	0.1	<0.1	0.2	0.1
Indeno(1,2,3-cd)pyrene	mg/kg	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
Benzo(ghi)perylene	mg/kg	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	<0.2	<0.2	0.3	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	<0.3	<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	0.3	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	1.5	<0.8	1.7	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	1.5	<0.8	1.7	<0.8

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
Naphthalene	mg/kg	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
1-methylnaphthalene	mg/kg	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
Acenaphthene	mg/kg	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
Phenanthrene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.3	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	0.4	<0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	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
Benzo(ghi)perylene	mg/kg	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	<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	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	0.3	<0.2	<0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	1.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	1.8	<0.8	<0.8	<0.8	<0.8

PARAMETER	UOM	LOR	D5
			SOIL
			20/8/2021 SE222853.026
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

OC Pesticides in Soil [AN420] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Hexachlorobenzene (HCB)	mg/kg	0.1	<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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL - 20/8/2021 SE222853.006	SOIL - 20/8/2021 SE222853.007	SOIL - 20/8/2021 SE222853.008	SOIL - 20/8/2021 SE222853.009	SOIL - 20/8/2021 SE222853.010
Hexachlorobenzene (HCB)	mg/kg	0.1	<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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Hexachlorobenzene (HCB)	mg/kg	0.1	<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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL - 20/8/2021 SE222853.016	SOIL - 20/8/2021 SE222853.017	SOIL - 20/8/2021 SE222853.018	SOIL - 20/8/2021 SE222853.019	SOIL - 20/8/2021 SE222853.020
Hexachlorobenzene (HCB)	mg/kg	0.1	<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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
Hexachlorobenzene (HCB)	mg/kg	0.1	<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	<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	<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	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

			D5
			SOIL
			-
			20/8/2021
			SE222853.026
PARAMETER	UOM	LOR	
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
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

OP Pesticides in Soil [AN420] Tested: 25/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

OP Pesticides in Soil [AN420] Tested: 25/8/2021 (continued)

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	D5
			SOIL
			20/8/2021 SE222853.026
Dichlorvos	mg/kg	0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2
Malathion	mg/kg	0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2
Methidathion	mg/kg	0.5	<0.5
Ethion	mg/kg	0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 26/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Arsenic, As	mg/kg	1	6	3	8	7	7
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	11	16	15	13
Copper, Cu	mg/kg	0.5	24	36	13	23	31
Lead, Pb	mg/kg	1	120	35	27	200	170
Nickel, Ni	mg/kg	0.5	6.6	7.1	3.3	7.1	6.6
Zinc, Zn	mg/kg	2	84	47	15	56	59

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Arsenic, As	mg/kg	1	6	4	4	5	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	14	16	13	12
Copper, Cu	mg/kg	0.5	17	16	23	18	25
Lead, Pb	mg/kg	1	140	20	23	68	35
Nickel, Ni	mg/kg	0.5	7.5	4.6	2.6	5.5	5.3
Zinc, Zn	mg/kg	2	76	16	17	55	41

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Arsenic, As	mg/kg	1	4	3	6	6	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	18	8.4	18	15	17
Copper, Cu	mg/kg	0.5	11	15	26	20	31
Lead, Pb	mg/kg	1	19	23	27	28	22
Nickel, Ni	mg/kg	0.5	4.5	4.0	19	4.8	11
Zinc, Zn	mg/kg	2	12	30	25	17	19

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Arsenic, As	mg/kg	1	4	5	2	4	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	16	6.4	12	18
Copper, Cu	mg/kg	0.5	17	17	24	28	30
Lead, Pb	mg/kg	1	24	39	16	51	63
Nickel, Ni	mg/kg	0.5	6.2	4.2	4.1	6.5	9.9
Zinc, Zn	mg/kg	2	20	34	26	66	62

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 26/8/2021

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 20/8/2021 SE222853.021	- 20/8/2021 SE222853.022	- 20/8/2021 SE222853.023	- 20/8/2021 SE222853.024	- 20/8/2021 SE222853.025
Arsenic, As	mg/kg	1	5	2	4	5	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	7.4	14	15	17
Copper, Cu	mg/kg	0.5	30	29	16	25	24
Lead, Pb	mg/kg	1	59	31	19	42	20
Nickel, Ni	mg/kg	0.5	8.1	5.7	1.3	7.6	3.8
Zinc, Zn	mg/kg	2	61	30	10	23	15

PARAMETER	UOM	LOR	D5
			SOIL
			- 20/8/2021 SE222853.026
Arsenic, As	mg/kg	1	2
Cadmium, Cd	mg/kg	0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.7
Copper, Cu	mg/kg	0.5	22
Lead, Pb	mg/kg	1	14
Nickel, Ni	mg/kg	0.5	4.0
Zinc, Zn	mg/kg	2	24

Mercury in Soil [AN312] Tested: 26/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Mercury	mg/kg	0.05	0.08	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	0.07	<0.05

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	0.10	0.10

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
Mercury	mg/kg	0.05	0.07	<0.05	<0.05	<0.05	<0.05

PARAMETER	UOM	LOR	D5
			SOIL
			-
			20/8/2021 SE222853.026
Mercury	mg/kg	0.05	<0.05

Moisture Content [AN002] Tested: 26/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
% Moisture	%w/w	1	16.6	13.6	20.5	18.0	12.9

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
% Moisture	%w/w	1	20.0	17.1	19.0	20.2	18.5

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
% Moisture	%w/w	1	22.4	6.7	23.7	18.2	23.0

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
% Moisture	%w/w	1	15.5	18.5	8.0	7.5	23.3

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
% Moisture	%w/w	1	22.2	9.8	18.5	22.5	22.8

PARAMETER	UOM	LOR	D5
			SOIL
			-
			20/8/2021 SE222853.026
% Moisture	%w/w	1	8.0

Fibre Identification in soil [AN602] Tested: 27/8/2021

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2	BH3.1	BH3.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.001	20/8/2021 SE222853.002	20/8/2021 SE222853.003	20/8/2021 SE222853.004	20/8/2021 SE222853.005
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH4	BH5.1	BH5.2	BH6	BH7.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.006	20/8/2021 SE222853.007	20/8/2021 SE222853.008	20/8/2021 SE222853.009	20/8/2021 SE222853.010
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH7.2	BH8	BH9.1	BH9.2	BH10
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.011	20/8/2021 SE222853.012	20/8/2021 SE222853.013	20/8/2021 SE222853.014	20/8/2021 SE222853.015
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH11	BH12.1	BH12.2	BH13	BH14.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.016	20/8/2021 SE222853.017	20/8/2021 SE222853.018	20/8/2021 SE222853.019	20/8/2021 SE222853.020
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	BH14.2	D1	D2	D3	D4
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			20/8/2021 SE222853.021	20/8/2021 SE222853.022	20/8/2021 SE222853.023	20/8/2021 SE222853.024	20/8/2021 SE222853.025
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PARAMETER	UOM	LOR	D5
			SOIL
			-
			20/8/2021 SE222853.026
Asbestos Detected	No unit	-	No
Estimated Fibres*	%w/w	0.01	<0.01

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/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.
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.
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 Recoverable Hydrocarbons - Silica (TRH-Si) 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 unequivocally 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/reporting limit (RL) 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 (RL) 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.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been 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 calculated 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:

- 1 Bq is equivalent to 27 pCi
- 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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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STATEMENT OF QA/QC PERFORMANCE

SE222853 R0

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Project **N5482-Soil**
Order Number **N5482**
Samples 26

LABORATORY DETAILS

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SGS Reference **SE222853 R0**
Date Received 23 Aug 2021
Date Reported 30 Aug 2021

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.

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:

Analysis Date	VOC's in Soil	45 items
	Volatile Petroleum Hydrocarbons in Soil	65 items
Surrogate	VOC's in Soil	2 items
	Volatile Petroleum Hydrocarbons in Soil	2 items
Duplicate	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
Matrix Spike	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	5 items
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	TRH (Total Recoverable Hydrocarbons) in Soil	3 items
	TRH (Total Recoverable Hydrocarbons) in Soil	3 items
	VOC's in Soil	1 item

SAMPLE SUMMARY

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provider	SGS	Sample cooling method	Ice
Samples received in correct containers	Yes	Sample counts by matrix	26 Soil
Date documentation received	23/8/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	20°C	Sufficient sample for analysis	Yes
Turnaround time requested	Standard		

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

Fibre Identification in soil

Method: ME-(AU)-ENVJAN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH1.2	SE222853.002	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH2	SE222853.003	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH3.1	SE222853.004	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH3.2	SE222853.005	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH4	SE222853.006	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH5.1	SE222853.007	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH5.2	SE222853.008	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH6	SE222853.009	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH7.1	SE222853.010	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH7.2	SE222853.011	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH8	SE222853.012	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH9.1	SE222853.013	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH9.2	SE222853.014	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH10	SE222853.015	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH11	SE222853.016	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH12.1	SE222853.017	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH12.2	SE222853.018	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH13	SE222853.019	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH14.1	SE222853.020	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
BH14.2	SE222853.021	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
D1	SE222853.022	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
D2	SE222853.023	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
D3	SE222853.024	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
D4	SE222853.025	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021
D5	SE222853.026	LB231438	20 Aug 2021	23 Aug 2021	20 Aug 2022	27 Aug 2021	20 Aug 2022	30 Aug 2021

Mercury in Soil

Method: ME-(AU)-ENVJAN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH1.2	SE222853.002	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH2	SE222853.003	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH3.1	SE222853.004	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH3.2	SE222853.005	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH4	SE222853.006	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH5.1	SE222853.007	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH5.2	SE222853.008	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH6	SE222853.009	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH7.1	SE222853.010	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH7.2	SE222853.011	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH8	SE222853.012	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH9.1	SE222853.013	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH9.2	SE222853.014	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH10	SE222853.015	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH11	SE222853.016	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH12.1	SE222853.017	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH12.2	SE222853.018	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH13	SE222853.019	LB231356	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH14.1	SE222853.020	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
BH14.2	SE222853.021	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
D1	SE222853.022	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
D2	SE222853.023	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
D3	SE222853.024	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
D4	SE222853.025	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021
D5	SE222853.026	LB231403	20 Aug 2021	23 Aug 2021	17 Sep 2021	26 Aug 2021	17 Sep 2021	30 Aug 2021

Moisture Content

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH1.2	SE222853.002	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH2	SE222853.003	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021

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

Moisture Content (continued)

Method: ME-(AU)-ENVJAN002

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3.1	SE222853.004	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH3.2	SE222853.005	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH4	SE222853.006	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH5.1	SE222853.007	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH5.2	SE222853.008	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH6	SE222853.009	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH7.1	SE222853.010	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH7.2	SE222853.011	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH8	SE222853.012	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH9.1	SE222853.013	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH9.2	SE222853.014	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH10	SE222853.015	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH11	SE222853.016	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH12.1	SE222853.017	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH12.2	SE222853.018	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH13	SE222853.019	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH14.1	SE222853.020	LB231334	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	30 Aug 2021
BH14.2	SE222853.021	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021
D1	SE222853.022	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021
D2	SE222853.023	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021
D3	SE222853.024	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021
D4	SE222853.025	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021
D5	SE222853.026	LB231333	20 Aug 2021	23 Aug 2021	03 Sep 2021	26 Aug 2021	31 Aug 2021	27 Aug 2021

OC Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH1.2	SE222853.002	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH2	SE222853.003	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.1	SE222853.004	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.2	SE222853.005	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH4	SE222853.006	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.1	SE222853.007	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.2	SE222853.008	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH6	SE222853.009	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.1	SE222853.010	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.2	SE222853.011	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH8	SE222853.012	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.1	SE222853.013	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.2	SE222853.014	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH10	SE222853.015	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH11	SE222853.016	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.1	SE222853.017	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.2	SE222853.018	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH13	SE222853.019	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.1	SE222853.020	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.2	SE222853.021	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D1	SE222853.022	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D2	SE222853.023	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D3	SE222853.024	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D4	SE222853.025	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D5	SE222853.026	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH1.2	SE222853.002	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH2	SE222853.003	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.1	SE222853.004	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.2	SE222853.005	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH4	SE222853.006	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021

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

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH5.1	SE222853.007	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.2	SE222853.008	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH6	SE222853.009	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.1	SE222853.010	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.2	SE222853.011	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH8	SE222853.012	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.1	SE222853.013	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.2	SE222853.014	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH10	SE222853.015	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH11	SE222853.016	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.1	SE222853.017	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.2	SE222853.018	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH13	SE222853.019	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.1	SE222853.020	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.2	SE222853.021	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D1	SE222853.022	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D2	SE222853.023	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D3	SE222853.024	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D4	SE222853.025	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D5	SE222853.026	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH1.2	SE222853.002	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH2	SE222853.003	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.1	SE222853.004	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.2	SE222853.005	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH4	SE222853.006	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.1	SE222853.007	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.2	SE222853.008	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH6	SE222853.009	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.1	SE222853.010	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.2	SE222853.011	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH8	SE222853.012	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.1	SE222853.013	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.2	SE222853.014	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH10	SE222853.015	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH11	SE222853.016	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.1	SE222853.017	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.2	SE222853.018	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH13	SE222853.019	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.1	SE222853.020	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.2	SE222853.021	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D1	SE222853.022	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D2	SE222853.023	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D3	SE222853.024	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D4	SE222853.025	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021
D5	SE222853.026	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	27 Aug 2021

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

Method: ME-(AU)-ENVJAN040/AN320

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH1.2	SE222853.002	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH2	SE222853.003	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH3.1	SE222853.004	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH3.2	SE222853.005	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH4	SE222853.006	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH5.1	SE222853.007	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH5.2	SE222853.008	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH6	SE222853.009	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021

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

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
BH7.1	SE222853.010	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH7.2	SE222853.011	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH8	SE222853.012	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH9.1	SE222853.013	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH9.2	SE222853.014	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH10	SE222853.015	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH11	SE222853.016	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH12.1	SE222853.017	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH12.2	SE222853.018	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH13	SE222853.019	LB231354	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH14.1	SE222853.020	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
BH14.2	SE222853.021	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
D1	SE222853.022	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
D2	SE222853.023	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
D3	SE222853.024	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
D4	SE222853.025	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021
D5	SE222853.026	LB231402	20 Aug 2021	23 Aug 2021	16 Feb 2022	26 Aug 2021	16 Feb 2022	30 Aug 2021

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
BH1.1	SE222853.001	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH1.2	SE222853.002	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH2	SE222853.003	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.1	SE222853.004	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH3.2	SE222853.005	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH4	SE222853.006	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.1	SE222853.007	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH5.2	SE222853.008	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH6	SE222853.009	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.1	SE222853.010	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH7.2	SE222853.011	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH8	SE222853.012	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.1	SE222853.013	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH9.2	SE222853.014	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH10	SE222853.015	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH11	SE222853.016	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.1	SE222853.017	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH12.2	SE222853.018	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH13	SE222853.019	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.1	SE222853.020	LB231278	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
BH14.2	SE222853.021	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
D1	SE222853.022	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
D2	SE222853.023	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
D3	SE222853.024	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
D4	SE222853.025	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021
D5	SE222853.026	LB231287	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	04 Oct 2021	30 Aug 2021

VOC's in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH1.2	SE222853.002	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH2	SE222853.003	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH3.1	SE222853.004	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH3.2	SE222853.005	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH4	SE222853.006	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH5.1	SE222853.007	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH5.2	SE222853.008	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH6	SE222853.009	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH7.1	SE222853.010	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH7.2	SE222853.011	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH8	SE222853.012	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†

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

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH9.1	SE222853.013	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH9.2	SE222853.014	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH10	SE222853.015	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH11	SE222853.016	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH12.1	SE222853.017	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH12.2	SE222853.018	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH13	SE222853.019	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH14.1	SE222853.020	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH14.2	SE222853.021	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D1	SE222853.022	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D2	SE222853.023	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D3	SE222853.024	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D4	SE222853.025	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D5	SE222853.026	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE222853.001	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH1.2	SE222853.002	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH2	SE222853.003	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH3.1	SE222853.004	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH3.2	SE222853.005	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH4	SE222853.006	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH5.1	SE222853.007	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH5.2	SE222853.008	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH6	SE222853.009	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH7.1	SE222853.010	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH7.2	SE222853.011	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH8	SE222853.012	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH9.1	SE222853.013	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH9.2	SE222853.014	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH10	SE222853.015	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH11	SE222853.016	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH12.1	SE222853.017	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH12.2	SE222853.018	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH13	SE222853.019	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH14.1	SE222853.020	LB231291	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
BH14.2	SE222853.021	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D1	SE222853.022	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D2	SE222853.023	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D3	SE222853.024	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D4	SE222853.025	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†
D5	SE222853.026	LB231294	20 Aug 2021	23 Aug 2021	03 Sep 2021	25 Aug 2021	27 Aug 2021	30 Aug 2021†

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 identifier 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)	BH1.1	SE222853.001	%	60 - 130%	97
	BH1.2	SE222853.002	%	60 - 130%	99
	BH2	SE222853.003	%	60 - 130%	95
	BH3.1	SE222853.004	%	60 - 130%	93
	BH3.2	SE222853.005	%	60 - 130%	91
	BH4	SE222853.006	%	60 - 130%	88
	BH5.1	SE222853.007	%	60 - 130%	88
	BH5.2	SE222853.008	%	60 - 130%	93
	BH6	SE222853.009	%	60 - 130%	92
	BH7.1	SE222853.010	%	60 - 130%	92
	BH7.2	SE222853.011	%	60 - 130%	97
	BH8	SE222853.012	%	60 - 130%	90
	BH9.1	SE222853.013	%	60 - 130%	99
	BH9.2	SE222853.014	%	60 - 130%	96
	BH10	SE222853.015	%	60 - 130%	98
	BH11	SE222853.016	%	60 - 130%	90
	BH12.1	SE222853.017	%	60 - 130%	95
	BH12.2	SE222853.018	%	60 - 130%	99
	BH13	SE222853.019	%	60 - 130%	92
	BH14.1	SE222853.020	%	60 - 130%	94
	BH14.2	SE222853.021	%	60 - 130%	109
	D1	SE222853.022	%	60 - 130%	97
	D2	SE222853.023	%	60 - 130%	107
	D3	SE222853.024	%	60 - 130%	102
	D4	SE222853.025	%	60 - 130%	106
	D5	SE222853.026	%	60 - 130%	107

OP Pesticides in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	91
	BH1.2	SE222853.002	%	60 - 130%	89
	BH2	SE222853.003	%	60 - 130%	86
	BH3.1	SE222853.004	%	60 - 130%	83
	BH3.2	SE222853.005	%	60 - 130%	94
	BH4	SE222853.006	%	60 - 130%	89
	BH5.1	SE222853.007	%	60 - 130%	89
	BH5.2	SE222853.008	%	60 - 130%	84
	BH6	SE222853.009	%	60 - 130%	88
	BH7.1	SE222853.010	%	60 - 130%	96
	BH7.2	SE222853.011	%	60 - 130%	89
	BH8	SE222853.012	%	60 - 130%	91
	BH9.1	SE222853.013	%	60 - 130%	90
	BH9.2	SE222853.014	%	60 - 130%	89
	BH10	SE222853.015	%	60 - 130%	89
	BH11	SE222853.016	%	60 - 130%	92
	BH12.1	SE222853.017	%	60 - 130%	92
	BH12.2	SE222853.018	%	60 - 130%	94
	BH13	SE222853.019	%	60 - 130%	96
	BH14.1	SE222853.020	%	60 - 130%	107
	BH14.2	SE222853.021	%	60 - 130%	88
	D1	SE222853.022	%	60 - 130%	88
	D2	SE222853.023	%	60 - 130%	86
	D3	SE222853.024	%	60 - 130%	86
	D4	SE222853.025	%	60 - 130%	88
	D5	SE222853.026	%	60 - 130%	88
d14-p-terphenyl (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	84
	BH1.2	SE222853.002	%	60 - 130%	91
	BH2	SE222853.003	%	60 - 130%	94
	BH3.1	SE222853.004	%	60 - 130%	94
	BH3.2	SE222853.005	%	60 - 130%	86
	BH4	SE222853.006	%	60 - 130%	89

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OP Pesticides in Soil (continued)

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d14-p-terphenyl (Surrogate)	BH5.1	SE222853.007	%	60 - 130%	102
	BH5.2	SE222853.008	%	60 - 130%	98
	BH6	SE222853.009	%	60 - 130%	87
	BH7.1	SE222853.010	%	60 - 130%	92
	BH7.2	SE222853.011	%	60 - 130%	91
	BH8	SE222853.012	%	60 - 130%	101
	BH9.1	SE222853.013	%	60 - 130%	97
	BH9.2	SE222853.014	%	60 - 130%	95
	BH10	SE222853.015	%	60 - 130%	100
	BH11	SE222853.016	%	60 - 130%	88
	BH12.1	SE222853.017	%	60 - 130%	87
	BH12.2	SE222853.018	%	60 - 130%	75
	BH13	SE222853.019	%	60 - 130%	90
	BH14.1	SE222853.020	%	60 - 130%	117
	BH14.2	SE222853.021	%	60 - 130%	90
	D1	SE222853.022	%	60 - 130%	92
	D2	SE222853.023	%	60 - 130%	90
	D3	SE222853.024	%	60 - 130%	88
	D4	SE222853.025	%	60 - 130%	92
	D5	SE222853.026	%	60 - 130%	92

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1.1	SE222853.001	%	70 - 130%	91
	BH1.2	SE222853.002	%	70 - 130%	89
	BH2	SE222853.003	%	70 - 130%	86
	BH3.1	SE222853.004	%	70 - 130%	83
	BH3.2	SE222853.005	%	70 - 130%	94
	BH4	SE222853.006	%	70 - 130%	89
	BH5.1	SE222853.007	%	70 - 130%	89
	BH5.2	SE222853.008	%	70 - 130%	84
	BH6	SE222853.009	%	70 - 130%	88
	BH7.1	SE222853.010	%	70 - 130%	96
	BH7.2	SE222853.011	%	70 - 130%	89
	BH8	SE222853.012	%	70 - 130%	91
	BH9.1	SE222853.013	%	70 - 130%	90
	BH9.2	SE222853.014	%	70 - 130%	89
	BH10	SE222853.015	%	70 - 130%	89
	BH11	SE222853.016	%	70 - 130%	92
	BH12.1	SE222853.017	%	70 - 130%	92
	BH12.2	SE222853.018	%	70 - 130%	94
	BH13	SE222853.019	%	70 - 130%	96
	BH14.1	SE222853.020	%	70 - 130%	107
	BH14.2	SE222853.021	%	70 - 130%	88
	D1	SE222853.022	%	70 - 130%	88
	D2	SE222853.023	%	70 - 130%	86
	D3	SE222853.024	%	70 - 130%	86
	D4	SE222853.025	%	70 - 130%	88
	D5	SE222853.026	%	70 - 130%	88
d14-p-terphenyl (Surrogate)	BH1.1	SE222853.001	%	70 - 130%	84
	BH1.2	SE222853.002	%	70 - 130%	91
	BH2	SE222853.003	%	70 - 130%	94
	BH3.1	SE222853.004	%	70 - 130%	94
	BH3.2	SE222853.005	%	70 - 130%	86
	BH4	SE222853.006	%	70 - 130%	89
	BH5.1	SE222853.007	%	70 - 130%	102
	BH5.2	SE222853.008	%	70 - 130%	98
	BH6	SE222853.009	%	70 - 130%	87
	BH7.1	SE222853.010	%	70 - 130%	92
	BH7.2	SE222853.011	%	70 - 130%	91
	BH8	SE222853.012	%	70 - 130%	101

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 identifier 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 %
d14-p-terphenyl (Surrogate)	BH9.1	SE222853.013	%	70 - 130%	97
	BH9.2	SE222853.014	%	70 - 130%	95
	BH10	SE222853.015	%	70 - 130%	100
	BH11	SE222853.016	%	70 - 130%	88
	BH12.1	SE222853.017	%	70 - 130%	87
	BH12.2	SE222853.018	%	70 - 130%	75
	BH13	SE222853.019	%	70 - 130%	90
	BH14.1	SE222853.020	%	70 - 130%	117
	BH14.2	SE222853.021	%	70 - 130%	90
	D1	SE222853.022	%	70 - 130%	92
	D2	SE222853.023	%	70 - 130%	90
	D3	SE222853.024	%	70 - 130%	88
	D4	SE222853.025	%	70 - 130%	92
	D5	SE222853.026	%	70 - 130%	92
d5-nitrobenzene (Surrogate)	BH1.1	SE222853.001	%	70 - 130%	92
	BH1.2	SE222853.002	%	70 - 130%	99
	BH2	SE222853.003	%	70 - 130%	98
	BH3.1	SE222853.004	%	70 - 130%	95
	BH3.2	SE222853.005	%	70 - 130%	97
	BH4	SE222853.006	%	70 - 130%	96
	BH5.1	SE222853.007	%	70 - 130%	97
	BH5.2	SE222853.008	%	70 - 130%	96
	BH6	SE222853.009	%	70 - 130%	95
	BH7.1	SE222853.010	%	70 - 130%	99
	BH7.2	SE222853.011	%	70 - 130%	101
	BH8	SE222853.012	%	70 - 130%	93
	BH9.1	SE222853.013	%	70 - 130%	98
	BH9.2	SE222853.014	%	70 - 130%	100
	BH10	SE222853.015	%	70 - 130%	95
	BH11	SE222853.016	%	70 - 130%	97
	BH12.1	SE222853.017	%	70 - 130%	99
	BH12.2	SE222853.018	%	70 - 130%	91
	BH13	SE222853.019	%	70 - 130%	97
	BH14.1	SE222853.020	%	70 - 130%	121
	BH14.2	SE222853.021	%	70 - 130%	80
	D1	SE222853.022	%	70 - 130%	84
	D2	SE222853.023	%	70 - 130%	82
	D3	SE222853.024	%	70 - 130%	84
	D4	SE222853.025	%	70 - 130%	84
	D5	SE222853.026	%	70 - 130%	82

VOC's in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	66
	BH1.2	SE222853.002	%	60 - 130%	65
	BH2	SE222853.003	%	60 - 130%	65
	BH3.1	SE222853.004	%	60 - 130%	64
	BH3.2	SE222853.005	%	60 - 130%	66
	BH4	SE222853.006	%	60 - 130%	62
	BH5.1	SE222853.007	%	60 - 130%	65
	BH5.2	SE222853.008	%	60 - 130%	65
	BH6	SE222853.009	%	60 - 130%	59 ⚠
	BH7.1	SE222853.010	%	60 - 130%	61
	BH7.2	SE222853.011	%	60 - 130%	62
	BH8	SE222853.012	%	60 - 130%	66
	BH9.1	SE222853.013	%	60 - 130%	62
	BH9.2	SE222853.014	%	60 - 130%	62
	BH10	SE222853.015	%	60 - 130%	59 ⚠
	BH11	SE222853.016	%	60 - 130%	65
	BH12.1	SE222853.017	%	60 - 130%	61
	BH12.2	SE222853.018	%	60 - 130%	65

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 identifier 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 %
Bromofluorobenzene (Surrogate)	BH13	SE222853.019	%	60 - 130%	64
	BH14.1	SE222853.020	%	60 - 130%	66
	BH14.2	SE222853.021	%	60 - 130%	92
	D1	SE222853.022	%	60 - 130%	88
	D2	SE222853.023	%	60 - 130%	88
	D3	SE222853.024	%	60 - 130%	74
	D4	SE222853.025	%	60 - 130%	86
	D5	SE222853.026	%	60 - 130%	93
d4-1,2-dichloroethane (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	80
	BH1.2	SE222853.002	%	60 - 130%	81
	BH2	SE222853.003	%	60 - 130%	81
	BH3.1	SE222853.004	%	60 - 130%	82
	BH3.2	SE222853.005	%	60 - 130%	80
	BH4	SE222853.006	%	60 - 130%	76
	BH5.1	SE222853.007	%	60 - 130%	83
	BH5.2	SE222853.008	%	60 - 130%	82
	BH6	SE222853.009	%	60 - 130%	76
	BH7.1	SE222853.010	%	60 - 130%	79
	BH7.2	SE222853.011	%	60 - 130%	80
	BH8	SE222853.012	%	60 - 130%	85
	BH9.1	SE222853.013	%	60 - 130%	79
	BH9.2	SE222853.014	%	60 - 130%	76
	BH10	SE222853.015	%	60 - 130%	75
	BH11	SE222853.016	%	60 - 130%	83
	BH12.1	SE222853.017	%	60 - 130%	80
	BH12.2	SE222853.018	%	60 - 130%	84
	BH13	SE222853.019	%	60 - 130%	83
	BH14.1	SE222853.020	%	60 - 130%	82
	BH14.2	SE222853.021	%	60 - 130%	96
	D1	SE222853.022	%	60 - 130%	95
	D2	SE222853.023	%	60 - 130%	98
	D3	SE222853.024	%	60 - 130%	83
	D4	SE222853.025	%	60 - 130%	97
	D5	SE222853.026	%	60 - 130%	104
d8-toluene (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	77
	BH1.2	SE222853.002	%	60 - 130%	79
	BH2	SE222853.003	%	60 - 130%	79
	BH3.1	SE222853.004	%	60 - 130%	81
	BH3.2	SE222853.005	%	60 - 130%	78
	BH4	SE222853.006	%	60 - 130%	74
	BH5.1	SE222853.007	%	60 - 130%	81
	BH5.2	SE222853.008	%	60 - 130%	81
	BH6	SE222853.009	%	60 - 130%	74
	BH7.1	SE222853.010	%	60 - 130%	76
	BH7.2	SE222853.011	%	60 - 130%	77
	BH8	SE222853.012	%	60 - 130%	83
	BH9.1	SE222853.013	%	60 - 130%	77
	BH9.2	SE222853.014	%	60 - 130%	73
	BH10	SE222853.015	%	60 - 130%	71
	BH11	SE222853.016	%	60 - 130%	81
	BH12.1	SE222853.017	%	60 - 130%	78
	BH12.2	SE222853.018	%	60 - 130%	81
	BH13	SE222853.019	%	60 - 130%	81
	BH14.1	SE222853.020	%	60 - 130%	81
	BH14.2	SE222853.021	%	60 - 130%	95
	D1	SE222853.022	%	60 - 130%	93
	D2	SE222853.023	%	60 - 130%	96
	D3	SE222853.024	%	60 - 130%	82
	D4	SE222853.025	%	60 - 130%	91
	D5	SE222853.026	%	60 - 130%	102

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Volatile Petroleum Hydrocarbons in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	66
	BH1.2	SE222853.002	%	60 - 130%	65
	BH2	SE222853.003	%	60 - 130%	65
	BH3.1	SE222853.004	%	60 - 130%	64
	BH3.2	SE222853.005	%	60 - 130%	66
	BH4	SE222853.006	%	60 - 130%	62
	BH5.1	SE222853.007	%	60 - 130%	65
	BH5.2	SE222853.008	%	60 - 130%	65
	BH6	SE222853.009	%	60 - 130%	59 ⚠
	BH7.1	SE222853.010	%	60 - 130%	61
	BH7.2	SE222853.011	%	60 - 130%	62
	BH8	SE222853.012	%	60 - 130%	66
	BH9.1	SE222853.013	%	60 - 130%	62
	BH9.2	SE222853.014	%	60 - 130%	62
	BH10	SE222853.015	%	60 - 130%	59 ⚠
	BH11	SE222853.016	%	60 - 130%	65
	BH12.1	SE222853.017	%	60 - 130%	61
	BH12.2	SE222853.018	%	60 - 130%	65
	BH13	SE222853.019	%	60 - 130%	64
	BH14.1	SE222853.020	%	60 - 130%	66
	BH14.2	SE222853.021	%	60 - 130%	92
	D1	SE222853.022	%	60 - 130%	88
	D2	SE222853.023	%	60 - 130%	88
	D3	SE222853.024	%	60 - 130%	74
	D4	SE222853.025	%	60 - 130%	86
	D5	SE222853.026	%	60 - 130%	93
d4-1,2-dichloroethane (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	80
	BH1.2	SE222853.002	%	60 - 130%	81
	BH2	SE222853.003	%	60 - 130%	81
	BH3.1	SE222853.004	%	60 - 130%	82
	BH3.2	SE222853.005	%	60 - 130%	80
	BH4	SE222853.006	%	60 - 130%	76
	BH5.1	SE222853.007	%	60 - 130%	83
	BH5.2	SE222853.008	%	60 - 130%	82
	BH6	SE222853.009	%	60 - 130%	76
	BH7.1	SE222853.010	%	60 - 130%	79
	BH7.2	SE222853.011	%	60 - 130%	80
	BH8	SE222853.012	%	60 - 130%	85
	BH9.1	SE222853.013	%	60 - 130%	79
	BH9.2	SE222853.014	%	60 - 130%	76
	BH10	SE222853.015	%	60 - 130%	75
	BH11	SE222853.016	%	60 - 130%	83
	BH12.1	SE222853.017	%	60 - 130%	80
	BH12.2	SE222853.018	%	60 - 130%	84
	BH13	SE222853.019	%	60 - 130%	83
	BH14.1	SE222853.020	%	60 - 130%	82
	BH14.2	SE222853.021	%	60 - 130%	96
	D1	SE222853.022	%	60 - 130%	95
	D2	SE222853.023	%	60 - 130%	98
	D3	SE222853.024	%	60 - 130%	83
	D4	SE222853.025	%	60 - 130%	97
	D5	SE222853.026	%	60 - 130%	104
d8-toluene (Surrogate)	BH1.1	SE222853.001	%	60 - 130%	77
	BH1.2	SE222853.002	%	60 - 130%	79
	BH2	SE222853.003	%	60 - 130%	79
	BH3.1	SE222853.004	%	60 - 130%	81
	BH3.2	SE222853.005	%	60 - 130%	78
	BH4	SE222853.006	%	60 - 130%	74
	BH5.1	SE222853.007	%	60 - 130%	81
	BH5.2	SE222853.008	%	60 - 130%	81
	BH6	SE222853.009	%	60 - 130%	74

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 identifier 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)	BH7.1	SE222853.010	%	60 - 130%	76
	BH7.2	SE222853.011	%	60 - 130%	77
	BH8	SE222853.012	%	60 - 130%	83
	BH9.1	SE222853.013	%	60 - 130%	77
	BH9.2	SE222853.014	%	60 - 130%	73
	BH10	SE222853.015	%	60 - 130%	71
	BH11	SE222853.016	%	60 - 130%	81
	BH12.1	SE222853.017	%	60 - 130%	78
	BH12.2	SE222853.018	%	60 - 130%	81
	BH13	SE222853.019	%	60 - 130%	81
	BH14.1	SE222853.020	%	60 - 130%	81
	BH14.2	SE222853.021	%	60 - 130%	95
	D1	SE222853.022	%	60 - 130%	93
	D2	SE222853.023	%	60 - 130%	96
	D3	SE222853.024	%	60 - 130%	82
	D4	SE222853.025	%	60 - 130%	91
	D5	SE222853.026	%	60 - 130%	102

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)-ENVJAN312

Sample Number	Parameter	Units	LOR	Result
LB231356.001	Mercury	mg/kg	0.05	<0.05
LB231403.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB231278.001	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)	%	-	78
LB231287.001	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)	%	-	85

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB231278.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	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.

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB231278.001	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	94
	d14-p-terphenyl (Surrogate)	%	-	94
LB231287.001	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
Surrogates	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	84
	d14-p-terphenyl (Surrogate)	%	-	100

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Sample Number	Parameter	Units	LOR	Result
LB231278.001	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
	d5-nitrobenzene (Surrogate)	%	-	103
	2-fluorobiphenyl (Surrogate)	%	-	94
	d14-p-terphenyl (Surrogate)	%	-	94
LB231287.001	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

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Sample Number	Parameter	Units	LOR	Result
LB231287.001	Surrogates			
	d5-nitrobenzene (Surrogate)	%	-	90
	2-fluorobiphenyl (Surrogate)	%	-	84
	d14-p-terphenyl (Surrogate)	%	-	100

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

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

Sample Number	Parameter	Units	LOR	Result
LB231354.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	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
LB231402.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	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
LB231278.001	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
LB231287.001	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
LB231291.001	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	d4-1,2-dichloroethane (Surrogate)	%	-	89
		d8-toluene (Surrogate)	%	-	87
		Bromofluorobenzene (Surrogate)	%	-	71
	Totals	Total BTEX	mg/kg	0.6	<0.6
LB231294.001	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	d4-1,2-dichloroethane (Surrogate)	%	-	107
		d8-toluene (Surrogate)	%	-	107
		Bromofluorobenzene (Surrogate)	%	-	99
	Totals	Total BTEX	mg/kg	0.6	<0.6

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB231291.001	TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-
LB231294.001	TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231356.014	Mercury	mg/kg	0.05	<0.05	<0.05	145	0
SE222853.019	LB231356.024	Mercury	mg/kg	0.05	0.10	0.12	77	20
SE222862.020	LB231403.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE222940.005	LB231403.023	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 %
SE222853.010	LB231334.011	% Moisture	%w/w	1	18.5	19.0	35	3
SE222853.020	LB231334.022	% Moisture	%w/w	1	23.3	24.0	34	3
SE222862.021	LB231333.011	% Moisture	%w/w	1	19.0	18.6	35	2
SE222862.023	LB231333.014	% Moisture	%w/w	1	15.1	15.1	37	0

OC Pesticides in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231278.014	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	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		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	<0.1	<0.1	200	0
		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	200	0	
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.14	30	2
SE222853.020	LB231278.025	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	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0
		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

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE222853.020	LB231278.025	p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0	
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0	
		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	200	0	
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	30	7		
SE222862.021	LB231287.024	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	200	0	
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0	
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0	
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0	
		Dieldrin	mg/kg	0.2	<0.2	<0.2	200	0	
		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	<0.1	<0.1	200	0	
		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	200	0	
		Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	30	1

OP Pesticides in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231278.014	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Metidathion	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	12
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE222853.020	LB231278.025	Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OP Pesticides in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.020	LB231278.025	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	9
		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
SE222862.021	LB231287.021	Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Methidathion	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231278.014	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	114	30
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	0.4	0.3	57	22
		Pyrene	mg/kg	0.1	0.4	0.3	59	20
		Benzo(a)anthracene	mg/kg	0.1	0.1	0.1	115	19
		Chrysene	mg/kg	0.1	0.1	0.1	114	27
		Benzo(b&j)fluoranthene	mg/kg	0.1	0.2	0.1	94	37
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	141	0
		Benzo(a)pyrene	mg/kg	0.1	0.2	0.1	103	24
		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	139	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	162	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	125	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	0.3	<0.3	115	2
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	0.2	0.2	97	18
		Total PAH (18)	mg/kg	0.8	1.6	1.3	85	23
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	6
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.4	30	12
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE222853.020	LB231278.025	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	195	0
		Anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Fluoranthene	mg/kg	0.1	0.2	0.2	74	6
		Pyrene	mg/kg	0.1	0.2	0.2	75	3

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.020	LB231278.025	Benzo(a)anthracene	mg/kg	0.1	<0.1	0.1	122	22
		Chrysene	mg/kg	0.1	<0.1	0.1	115	30
		Benzo(b&j)fluoranthene	mg/kg	0.1	0.1	0.2	90	25
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	159	0
		Benzo(a)pyrene	mg/kg	0.1	0.1	0.1	112	19
		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	171	0
		Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1	196	0
		Carcinogenic PAHs, BaP TEQ <LOR=0	mg/kg	0.2	<0.2	<0.2	142	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	122	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	0.2	105	13
		Total PAH (18)	mg/kg	0.8	<0.8	1.1	116	33
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.6	0.6	30	7
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.6	0.5	30	9
SE222862.021	LB231287.021	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	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	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
		TEQ (mg/kg)	0.2	<0.2	<0.2	200	0	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	mg/kg	0.3	<0.3	<0.3	134	0
		TEQ (mg/kg)	0.3	<0.3	<0.3	134	0	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	mg/kg	0.2	<0.2	<0.2	175	0
		TEQ (mg/kg)	0.2	<0.2	<0.2	175	0	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	2
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	2
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	2

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

Method: ME-(AU)-ENVJAN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231354.014	Arsenic, As	mg/kg	1	6	6	46	0
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	199	0
		Chromium, Cr	mg/kg	0.5	12	14	34	15
		Copper, Cu	mg/kg	0.5	25	20	32	20
		Nickel, Ni	mg/kg	0.5	5.3	5.2	40	2
		Lead, Pb	mg/kg	1	35	36	33	3
		Zinc, Zn	mg/kg	2	41	46	35	12
		Arsenic, As	mg/kg	1	4	5	52	4
SE222853.019	LB231354.024	Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	12	12	34	2
		Copper, Cu	mg/kg	0.5	28	28	32	0
		Nickel, Ni	mg/kg	0.5	6.5	5.2	39	22
		Lead, Pb	mg/kg	1	51	65	32	24
		Zinc, Zn	mg/kg	2	66	60	33	9
		Arsenic, As	mg/kg	1	5	5	51	5

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

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

Method: ME-(AU)-[ENV]JAN040/AN320

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222862.020	LB231402.014	Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	11	11	34	1
		Copper, Cu	mg/kg	0.5	16	16	33	2
		Nickel, Ni	mg/kg	0.5	9.2	9.7	35	5
		Lead, Pb	mg/kg	1	11	12	39	8
		Zinc, Zn	mg/kg	2	27	27	37	1
SE222940.005	LB231402.023	Arsenic, As	mg/kg	1	5	4	52	12
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	4.5	4.2	41	7
		Copper, Cu	mg/kg	0.5	12	9.6	35	21
		Nickel, Ni	mg/kg	0.5	2.3	1.9	54	20
		Lead, Pb	mg/kg	1	9	17	38	63 @
		Zinc, Zn	mg/kg	2	18	16	42	13

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]JAN403

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231278.014	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
SE222853.020	LB231278.025	TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
		TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	140	110	65	22
		TRH C29-C36	mg/kg	45	74	83	87	11
		TRH C37-C40	mg/kg	100	<100	<100	200	0
		TRH C10-C36 Total	mg/kg	110	220	200	83	9
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	139	0
		TRH F Bands						
		TRH >C10-C16	mg/kg	25	54	41	83	27
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	54	41	83	27
SE222862.021	LB231287.014	TRH >C16-C34 (F3)	mg/kg	90	150	140	92	11
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
		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]JAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE222853.010	LB231291.014	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
			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	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	8.0	50	2
			d8-toluene (Surrogate)	mg/kg	-	7.6	7.8	50	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.1	6.2	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
SE222853.020	LB231291.025	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
		Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOC's in Soil (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE222853.020	LB231291.025	Monocyclic	Ethylbenzene	mg/kg	0.1	<0.1	<0.1	200	0	
		Aromatic	m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0	
			o-xylene	mg/kg	0.1	<0.1	<0.1	153	0	
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	200	0	
	Surrogates		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	7.7	50	6	
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.5	50	7	
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.6	6.1	50	7	
	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	
	SE222862.021	LB231294.014	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				d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	9.2	50	10
				d8-toluene (Surrogate)	mg/kg	-	10.2	9.3	50	10
				Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.4	50	8
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

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE222853.010	LB231291.014	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.9	8.0	30	2
			d8-toluene (Surrogate)	mg/kg	-	7.6	7.8	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.1	6.2	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
SE222853.020	LB231291.025	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.2	7.7	30	6
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.5	30	7
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.6	6.1	30	7
		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
SE222862.021	LB231294.014	TRH C6-C10	mg/kg	25	<25	<25	200	0	
		TRH C6-C9	mg/kg	20	<20	<20	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.3	9.2	30	10
			d8-toluene (Surrogate)	mg/kg	-	10.2	9.3	30	10
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	8.4	30	8
		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 %
LB231356.002	Mercury	mg/kg	0.05	0.26	0.2	70 - 130	129
LB231403.002	Mercury	mg/kg	0.05	0.20	0.2	70 - 130	100

OC Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231278.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	78
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	80
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	78
	Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	81
	Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	89
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	87
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.12	0.15	40 - 130
LB231287.002	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	80
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	81
	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	80
	Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	85
	Endrin	mg/kg	0.2	<0.2	0.2	60 - 140	95
	p,p'-DDT	mg/kg	0.1	0.2	0.2	60 - 140	89
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.11	0.15	40 - 130

OP Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB231278.002	Dichlorvos	mg/kg	0.5	1.9	2	60 - 140	95	
	Diazinon (Dimpylate)	mg/kg	0.5	2.2	2	60 - 140	112	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.3	2	60 - 140	113	
	Ethion	mg/kg	0.2	1.7	2	60 - 140	83	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	91
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
LB231287.002	Dichlorvos	mg/kg	0.5	1.7	2	60 - 140	85	
	Diazinon (Dimpylate)	mg/kg	0.5	2.2	2	60 - 140	110	
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.0	2	60 - 140	102	
	Ethion	mg/kg	0.2	1.9	2	60 - 140	96	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB231278.002	Naphthalene	mg/kg	0.1	3.8	4	60 - 140	95	
	Acenaphthylene	mg/kg	0.1	3.6	4	60 - 140	89	
	Acenaphthene	mg/kg	0.1	4.0	4	60 - 140	100	
	Phenanthrene	mg/kg	0.1	3.9	4	60 - 140	99	
	Anthracene	mg/kg	0.1	4.2	4	60 - 140	105	
	Fluoranthene	mg/kg	0.1	4.2	4	60 - 140	104	
	Pyrene	mg/kg	0.1	4.4	4	60 - 140	111	
	Benzo(a)pyrene	mg/kg	0.1	4.0	4	60 - 140	100	
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	95
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	91
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
LB231287.002	Naphthalene	mg/kg	0.1	4.0	4	60 - 140	100	
	Acenaphthylene	mg/kg	0.1	4.1	4	60 - 140	103	
	Acenaphthene	mg/kg	0.1	4.2	4	60 - 140	104	
	Phenanthrene	mg/kg	0.1	4.3	4	60 - 140	108	
	Anthracene	mg/kg	0.1	4.3	4	60 - 140	106	
	Fluoranthene	mg/kg	0.1	4.1	4	60 - 140	103	
	Pyrene	mg/kg	0.1	4.4	4	60 - 140	109	
	Benzo(a)pyrene	mg/kg	0.1	4.7	4	60 - 140	117	
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	84
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	86

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

Method: ME-(AU)-[ENV]AN40/AN320

Sample Number	Parameter	Units	LOR
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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.

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

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231354.002	Arsenic, As	mg/kg	1	340	318.22	80 - 120	107
	Cadmium, Cd	mg/kg	0.3	5.3	4.81	70 - 130	110
	Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	110
	Copper, Cu	mg/kg	0.5	290	290	80 - 120	101
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	101
	Lead, Pb	mg/kg	1	91	89.9	80 - 120	101
	Zinc, Zn	mg/kg	2	280	273	80 - 120	101
LB231402.002	Arsenic, As	mg/kg	1	350	318.22	80 - 120	110
	Cadmium, Cd	mg/kg	0.3	5.4	4.81	70 - 130	112
	Chromium, Cr	mg/kg	0.5	42	38.31	80 - 120	109
	Copper, Cu	mg/kg	0.5	300	290	80 - 120	104
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	103
	Lead, Pb	mg/kg	1	93	89.9	80 - 120	103
	Zinc, Zn	mg/kg	2	280	273	80 - 120	103

TRH (Total Recoverable Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231278.002	TRH C10-C14	mg/kg	20	48	40	60 - 140	120
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	108
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	93
	TRH F Bands						
	TRH >C10-C16	mg/kg	25	47	40	60 - 140	118
	TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	105
LB231287.002	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85
	TRH C10-C14	mg/kg	20	39	40	60 - 140	98
	TRH C15-C28	mg/kg	45	<45	40	60 - 140	93
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	75
	TRH F Bands						
	TRH >C10-C16	mg/kg	25	38	40	60 - 140	95
	TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	88
	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	85

VOC's in Soil

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231291.002	Monocyclic	Benzene	mg/kg	0.1	3.7	5	60 - 140	74
	Aromatic	Toluene	mg/kg	0.1	3.8	5	60 - 140	76
		Ethylbenzene	mg/kg	0.1	3.9	5	60 - 140	79
		m/p-xylene	mg/kg	0.2	8.0	10	60 - 140	80
		o-xylene	mg/kg	0.1	4.0	5	60 - 140	79
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	10	70 - 130	94
		d8-toluene (Surrogate)	mg/kg	-	9.2	10	70 - 130	92
		Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	10	70 - 130	75
LB231294.002	Monocyclic	Benzene	mg/kg	0.1	4.3	5	60 - 140	85
	Aromatic	Toluene	mg/kg	0.1	4.3	5	60 - 140	87
		Ethylbenzene	mg/kg	0.1	4.5	5	60 - 140	90
		m/p-xylene	mg/kg	0.2	9.0	10	60 - 140	90
		o-xylene	mg/kg	0.1	4.5	5	60 - 140	89
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.7	10	70 - 130	107
		d8-toluene (Surrogate)	mg/kg	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.4	10	70 - 130	94

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB231291.002	TRH C6-C10	mg/kg	25	67	92.5	60 - 140	73	
	TRH C6-C9	mg/kg	20	58	80	60 - 140	72	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.4	10	70 - 130	94
		Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	10	70 - 130	75
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	44	62.5	60 - 140	70
		TRH C6-C10	mg/kg	25	81	92.5	60 - 140	88
LB231294.002	TRH C6-C9	mg/kg	20	70	80	60 - 140	88	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	10.7	10	70 - 130	107
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.4	10	70 - 130	94
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	55	62.5	60 - 140	87
		TRH C6-C10	mg/kg	25	81	92.5	60 - 140	88

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 identifier 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%
SE222853.001	LB231356.004	Mercury	mg/kg	0.05	0.29	0.08	0.2	105
SE222853.020	LB231403.004	Mercury	mg/kg	0.05	0.28	0.10	0.2	91

OC Pesticides in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.001	LB231278.004	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	0.2	<0.1	0.2	115
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	105
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	112
		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	0.2	119
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	123
		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	0.2	<0.1	0.2	114
		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	-	-
SE222853.021	LB231287.023	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	103
		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	0.2	101
		Aldrin	mg/kg	0.1	<0.1	<0.1	0.2	98
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	<0.1	<0.1	0.2	102
		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	0.2	96
		Endrin	mg/kg	0.2	<0.2	<0.2	0.2	107
		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	0.2	97
		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	-	-

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

OC Pesticides in Soil (continued)

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.021	LB231287.023	Mirex	mg/kg	0.1		<0.1	-	-
		Total CLP OC Pesticides	mg/kg	1		<1	-	-
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-		0.16	-	103

OP Pesticides in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.001	LB231278.004	Dichlorvos	mg/kg	0.5	1.9	<0.5	2	95
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Diazinon (Dimpylate)	mg/kg	0.5	2.3	<0.5	2	113
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
		Malathion	mg/kg	0.2	<0.2	<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.3	<0.2	2	115
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	2.2	<0.2	2	112
		Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
		Total OP Pesticides*	mg/kg	1.7	8.7	<1.7	-	-
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	89
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	86
SE222853.021	LB231287.022	Dichlorvos	mg/kg	0.5		<0.5	2	77
		Dimethoate	mg/kg	0.5		<0.5	-	-
		Diazinon (Dimpylate)	mg/kg	0.5		<0.5	2	98
		Fenitrothion	mg/kg	0.2		<0.2	-	-
		Malathion	mg/kg	0.2		<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2		<0.2	2	98
		Parathion-ethyl (Parathion)	mg/kg	0.2		<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2		<0.2	-	-
		Methidathion	mg/kg	0.5		<0.5	-	-
		Ethion	mg/kg	0.2		<0.2	2	91
		Azinphos-methyl (Guthion)	mg/kg	0.2		<0.2	-	-
		Total OP Pesticides*	mg/kg	1.7		<1.7	-	-
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-		0.4	-	84
		d14-p-terphenyl (Surrogate)	mg/kg	-		0.5	-	88

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.001	LB231278.004	Naphthalene	mg/kg	0.1	3.8	0.2	4	90
		2-methylnaphthalene	mg/kg	0.1	<0.1	0.2	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	0.2	-	-
		Acenaphthylene	mg/kg	0.1	3.7	1.0	4	68
		Acenaphthene	mg/kg	0.1	3.8	0.2	4	90
		Fluorene	mg/kg	0.1	0.5	1.1	-	-
		Phenanthrene	mg/kg	0.1	6.5	7.9	4	-35 @
		Anthracene	mg/kg	0.1	4.9	2.9	4	51 @
		Fluoranthene	mg/kg	0.1	8.1	11	4	-84 @
		Pyrene	mg/kg	0.1	8.1	11	4	-79 @
		Benzo(a)anthracene	mg/kg	0.1	2.2	5.0	-	-
		Chrysene	mg/kg	0.1	1.9	4.5	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1	2.3	5.3	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	1.1	2.4	-	-
		Benzo(a)pyrene	mg/kg	0.1	5.8	5.2	4	15 @
		Indeno(1,2,3-cd)pyrene	mg/kg	0.1	0.2	0.5	-	-
		Dibenzo(ah)anthracene	mg/kg	0.1	1.3	3.1	-	-
		Benzo(ghi)perylene	mg/kg	0.1	1.2	2.9	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=0	TEQ (mg/kg)	0.2	7.7	9.6	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR	TEQ (mg/kg)	0.3	7.7	9.6	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2	TEQ (mg/kg)	0.2	7.7	9.6	-	-
		Total PAH (18)	mg/kg	0.8	55	65	-	-
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	-	92
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	89
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	86

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 identifier 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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.021	LB231287.022	Naphthalene	mg/kg	0.1		<0.1	4	89
		2-methylnaphthalene	mg/kg	0.1		<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1		<0.1	-	-
		Acenaphthylene	mg/kg	0.1		<0.1	4	93
		Acenaphthene	mg/kg	0.1		<0.1	4	92
		Fluorene	mg/kg	0.1		<0.1	-	-
		Phenanthrene	mg/kg	0.1		0.1	4	90
		Anthracene	mg/kg	0.1		<0.1	4	91
		Fluoranthene	mg/kg	0.1		0.3	4	88
		Pyrene	mg/kg	0.1		0.4	4	93
		Benzo(a)anthracene	mg/kg	0.1		0.2	-	-
		Chrysene	mg/kg	0.1		0.2	-	-
		Benzo(b&j)fluoranthene	mg/kg	0.1		0.2	-	-
		Benzo(k)fluoranthene	mg/kg	0.1		0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1		0.2	4	92
		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		0.3	-	-
		Total PAH (18)	mg/kg	0.8		1.8	-	-
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-		0.4	-	82
		2-fluorobiphenyl (Surrogate)	mg/kg	-		0.4	-	84
		d14-p-terphenyl (Surrogate)	mg/kg	-		0.5	-	88

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%
SE222853.001	LB231354.004	Arsenic, As	mg/kg	1	53	6	50	94
		Cadmium, Cd	mg/kg	0.3	48	<0.3	50	95
		Chromium, Cr	mg/kg	0.5	64	14	50	98
		Copper, Cu	mg/kg	0.5	71	24	50	93
		Nickel, Ni	mg/kg	0.5	55	6.6	50	98
		Lead, Pb	mg/kg	1	140	120	50	50 ④
		Zinc, Zn	mg/kg	2	130	84	50	87
SE222853.020	LB231402.004	Arsenic, As	mg/kg	1	51	5	50	91
		Cadmium, Cd	mg/kg	0.3	44	<0.3	50	88
		Chromium, Cr	mg/kg	0.5	60	18	50	84
		Copper, Cu	mg/kg	0.5	70	30	50	80
		Nickel, Ni	mg/kg	0.5	54	9.9	50	88
		Lead, Pb	mg/kg	1	93	63	50	60 ④
		Zinc, Zn	mg/kg	2	99	62	50	75

TRH (Total Recoverable Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE222853.001	LB231278.004	TRH C10-C14	mg/kg	20	48	<20	40	120
		TRH C15-C28	mg/kg	45	130	150	40	-43 ⑤
		TRH C29-C36	mg/kg	45	73	68	40	13 ⑤
		TRH C37-C40	mg/kg	100	<100	<100	-	-
		TRH C10-C36 Total	mg/kg	110	260	220	-	-
		TRH >C10-C40 Total (F bands)	mg/kg	210	210	<210	-	-
	TRH F Bands	TRH >C10-C16	mg/kg	25	48	<25	40	120
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	48	<25	-	-
		TRH >C16-C34 (F3)	mg/kg	90	170	210	40	-98 ⑤
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	-	-
SE222853.021	LB231287.004	TRH C10-C14	mg/kg	20	48	<20	40	120
		TRH C15-C28	mg/kg	45	68	69	40	-3 ⑤
		TRH C29-C36	mg/kg	45	53	47	40	15 ⑤
		TRH C37-C40	mg/kg	100	<100	<100	-	-
		TRH C10-C36 Total	mg/kg	110	<110	120	-	-
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-
	TRH F	TRH >C10-C16	mg/kg	25	58	34	40	60

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 identifier 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%
SE222853.021	LB231287.004	TRH F	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	34	-
		Bands	TRH >C16-C34 (F3)	mg/kg	90	<90	40	-23 ⑥
			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%
SE222853.001	LB231291.004	Monocyclic	Benzene	mg/kg	0.1	3.3	<0.1	5	65
			Aromatic	Toluene	mg/kg	0.1	3.4	<0.1	5
			Ethylbenzene	mg/kg	0.1	3.6	<0.1	5	72
			m/p-xylene	mg/kg	0.2	7.4	<0.2	10	73
			o-xylene	mg/kg	0.1	3.7	<0.1	5	73
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.0	10	86
			d8-toluene (Surrogate)	mg/kg	-	8.4	7.7	10	84
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.9	6.6	10	69 Ⓢ
		Totals	Total Xylenes	mg/kg	0.3	11	<0.3	-	-
Total BTEX	mg/kg		0.6	21	<0.6	-	-		
SE222853.021	LB231294.004	Monocyclic	Benzene	mg/kg	0.1	3.4	<0.1	5	69
			Aromatic	Toluene	mg/kg	0.1	3.6	<0.1	5
			Ethylbenzene	mg/kg	0.1	3.8	<0.1	5	75
			m/p-xylene	mg/kg	0.2	7.6	<0.2	10	76
			o-xylene	mg/kg	0.1	3.8	<0.1	5	75
		Polycyclic	Naphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	9.6	10	84
			d8-toluene (Surrogate)	mg/kg	-	8.1	9.5	10	81
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	9.2	10	75
		Totals	Total Xylenes	mg/kg	0.3	11	<0.3	-	-
Total BTEX	mg/kg		0.6	22	<0.6	-	-		

Volatile Petroleum Hydrocarbons in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE222853.001	LB231291.004	TRH C6-C10	mg/kg	25	62	<25	92.5	67	
		TRH C6-C9	mg/kg	20	52	<20	80	65	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	8.0	10	86
			d8-toluene (Surrogate)	mg/kg	-	8.4	7.7	10	84
			Bromofluorobenzene (Surrogate)	mg/kg	-	6.9	6.6	-	69
		VPH F	Benzene (F0)	mg/kg	0.1	3.3	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	41	<25	62.5	65
SE222853.021	LB231294.004	TRH C6-C10	mg/kg	25	79	<25	92.5	85	
		TRH C6-C9	mg/kg	20	69	<20	80	86	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.4	9.6	10	84
			d8-toluene (Surrogate)	mg/kg	-	8.1	9.5	10	81
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.5	9.2	-	75
		VPH F	Benzene (F0)	mg/kg	0.1	3.4	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	57	<25	62.5	90

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

id samples expressed on a dry weight basis.

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: https://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.
- *** Indicates that both * and ** apply.
- 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 relevant report comments for further information.

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Project N5482-Soil
Order Number N5482
Samples 26

SGS Reference SE222853 R0
Date Received 23 Aug 2021
Date Reported 30 Aug 2021

COMMENTS

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

A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Industries and Environment recommends supplying approximately 50-100g of sample in a separate container.

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

Asbestos analysed by Approved Identifier Ravee Sivasubramaniam.

SIGNATORIES

Akheeque BENIAMEEN
Chemist

Bennet LO
Senior Chemist

Huong CRAWFORD
Production Manager

Ly Kim HA
Organic Section Head

Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Fibre Identification	Est.%w/w*
SE222853.001	BH1.1	Soil	85g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.002	BH1.2	Soil	90g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.003	BH2	Soil	90g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.004	BH3.1	Soil	90g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.005	BH3.2	Soil	102g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.006	BH4	Soil	82g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.007	BH5.1	Soil	86g Clay, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.008	BH5.2	Soil	102g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.009	BH6	Soil	97g Clay, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.010	BH7.1	Soil	97g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.011	BH7.2	Soil	82g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.012	BH8	Soil	97g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.013	BH9.1	Soil	98g Clay	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.014	BH9.2	Soil	79g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.015	BH10	Soil	84g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.016	BH11	Soil	70g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.017	BH12.1	Soil	78g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.018	BH12.2	Soil	128g Clay, Sand, Rocks	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.019	BH13	Soil	70g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.020	BH14.1	Soil	56g Clay, Sand, Soil	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.021	BH14.2	Soil	68g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.022	D1	Soil	119g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.023	D2	Soil	86g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.024	D3	Soil	82g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.025	D4	Soil	72g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01
SE222853.026	D5	Soil	108g Clay, Sand	20 Aug 2021	No Asbestos Found at RL of 0.1g/kg	<0.01

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 unequivocally 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/reporting limit (RL) 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 (RL) 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.

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.
			***	-	Indicates that both * and ** apply.

(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.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client only. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

This test report shall not be reproduced, except in full.

Page 1 of 3

Email: au.samplerreceipt.sydney@sgs.com

Contact Name: Nick Calabiano
Luke Brevu

Telephone: 0416 690 375 Lynch: 0455 405 502

Email Results: [Read Comment section.]

[illegible]

SE222853



Received By:	George Zhi
Received By:	

Date/Time	23/8/21 @ 4pm
Date/Time	

Received By:

Date/Time	Location	Activity	Remarks
10/10/2023	...	...	...
10/11/2023	...	...	...
10/12/2023	...	...	...
10/13/2023	...	...	...
10/14/2023	...	...	...
10/15/2023	...	...	...
10/16/2023	...	...	...
10/17/2023	...	...	...
10/18/2023	...	...	...
10/19/2023	...	...	...
10/20/2023	...	...	...
10/21/2023	...	...	...
10/22/2023	...	...	...
10/23/2023	...	...	...
10/24/2023	...	...	...
10/25/2023	...	...	...
10/26/2023	...	...	...
10/27/2023	...	...	...
10/28/2023	...	...	...
10/29/2023	...	...	...
10/30/2023	...	...	...
10/31/2023	...	...	...

Sample Cooler Sealed: Yes/ No

Laboratory Quotation No:

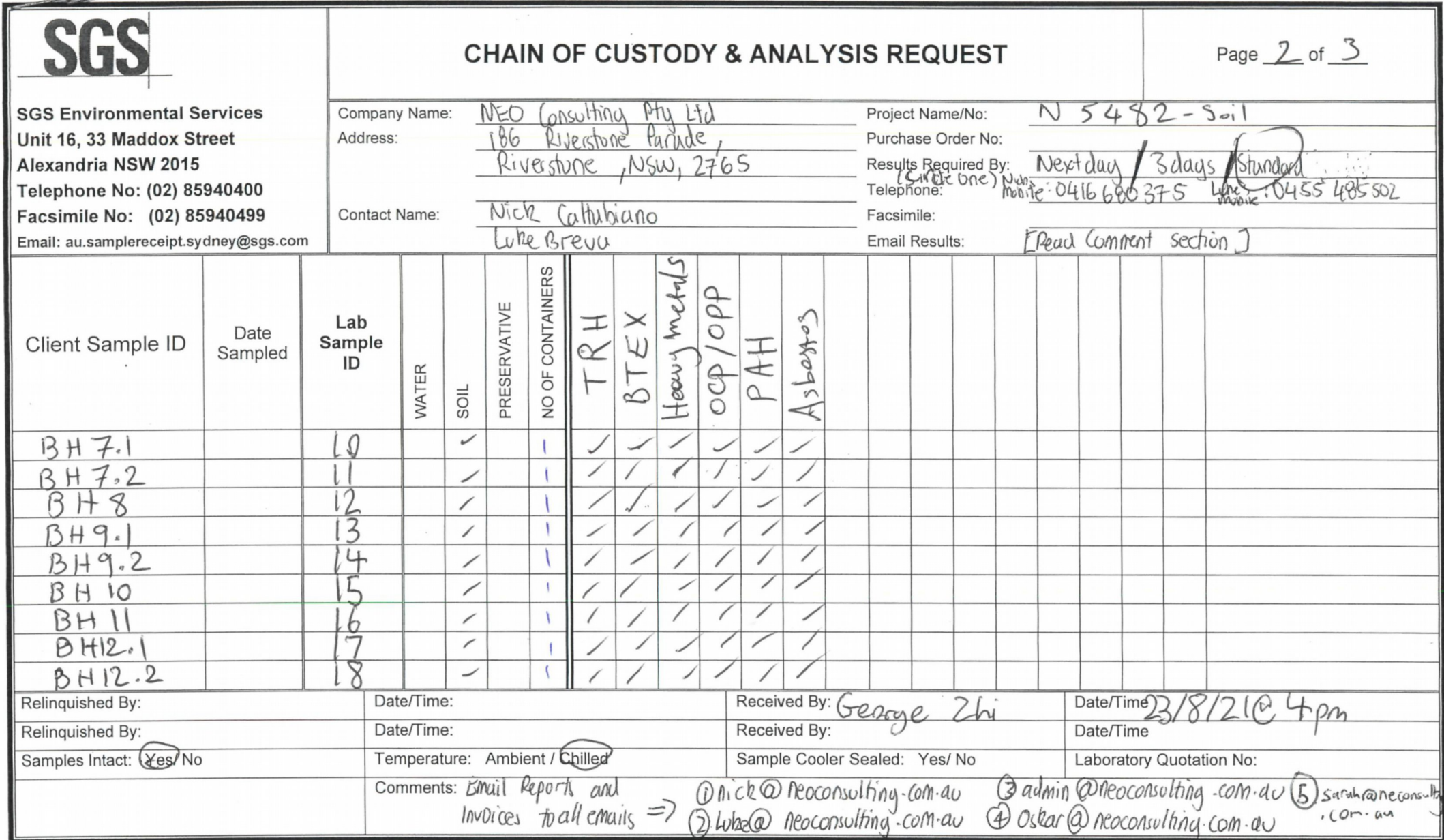
Comments:	Email Reports and Invoices to all emails
-----------	--

① nick @ neoconsulting . com . au

③ admin@neoconsulting.com.do

5) Sarah@neconsult
com.au

⑥ Ehsan@neoconsulting.com.au





Page 3 of 3

Company Name: NEO Consulting Pty Ltd
Address: 186 Riverstone Parade,
Riverstone, NSW, 2765

Project Name/No: N 5482-501
Purchase Order No:
Results Required By: Next day / 3 days / Standard
Telephone: (Circle one) Mobile: 0416 600 375 Lines: 0455 405 502

Contact Name: Nick Calubiano
Luke Brevu

Facsimile: _____
Email Results: Read Comment section

Client Sample ID	Date Sampled	Lab Sample ID	WATER	SOIL	PRESERVATIVE	NO OF CONTAINERS	TRH	BTEX	Heavy metals	OCP/OPP	PAH	Asbestos
BH13		19		/		-	/	/	/	/	/	/
BH14-1		20		/		-	/	/	/	/	/	/
BH14-2		21		/		-	/	/	/	/	/	/
D1		22		/		-	/	/	/	/	/	/
D2		23		/		-	/	/	/	/	/	/
D3		24		/		-	/	/	/	/	/	/
D4		25		/		-	/	/	/	/	/	/
D5		26		/		-	/	/	/	/	/	/

Relinquished By:

Date/Time:

Received By: George Zhi

Date/Time	23/8/21 @ 4pm
Date/Time	

Relinquished By:

Date/Time:

Received By:

Date/Time

Samples Intact: Yes No

Temperature: Ambient / ☒ Chilled

Sample Cooler Sealed: Yes/ No

Laboratory Quotation No:

Comments: Email Reports and Invoices to all emails $\Rightarrow$ ① nick@neoconsulting.com.au ② admin@neoconsulting.com.au ③ admin@neoconsulting.com.au ④ admin@neoconsulting.com.au ⑤ sarah@neoconsulting.com.au

⑥ Ehsan@neoconsulting.com.au



SAMPLE RECEIPT ADVICE

SE222853

CLIENT DETAILS

Contact Admin
Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

Telephone 0416 680 375
Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **N5482-Soil**
Order Number **N5482**
Samples 26

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 Mon 23/8/2021
Report Due Mon 30/8/2021
SGS Reference **SE222853**

SUBMISSION DETAILS

This is to confirm that 26 samples were received on Monday 23/8/2021. Results are expected to be ready by COB Monday 30/8/2021. Please quote SGS reference SE222853 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Samples clearly labelled	Yes	Complete documentation received	Yes
Sample container provided	SGS	Sample cooling method	Ice
Samples received in correct containers	Yes	Sample counts by matrix	26 Soil
Date documentation received	23/8/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	20°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

A separate portion was not supplied for Asbestos analysis. A sub-sample will be used from the jar provided.

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CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N5482-Soil**

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
001	BH1.1	29	14	26	7	10	11	7
002	BH1.2	29	14	26	7	10	11	7
003	BH2	29	14	26	7	10	11	7
004	BH3.1	29	14	26	7	10	11	7
005	BH3.2	29	14	26	7	10	11	7
006	BH4	29	14	26	7	10	11	7
007	BH5.1	29	14	26	7	10	11	7
008	BH5.2	29	14	26	7	10	11	7
009	BH6	29	14	26	7	10	11	7
010	BH7.1	29	14	26	7	10	11	7
011	BH7.2	29	14	26	7	10	11	7
012	BH8	29	14	26	7	10	11	7
013	BH9.1	29	14	26	7	10	11	7
014	BH9.2	29	14	26	7	10	11	7
015	BH10	29	14	26	7	10	11	7
016	BH11	29	14	26	7	10	11	7
017	BH12.1	29	14	26	7	10	11	7
018	BH12.2	29	14	26	7	10	11	7
019	BH13	29	14	26	7	10	11	7
020	BH14.1	29	14	26	7	10	11	7
021	BH14.2	29	14	26	7	10	11	7
022	D1	29	14	26	7	10	11	7
023	D2	29	14	26	7	10	11	7
024	D3	29	14	26	7	10	11	7

CONTINUED OVERLEAF

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

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE222853

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N5482-Soil**

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP Pesticides in Soil	PAH (Polynuclear Aromatic Hydrocarbons) in Soil	Total Recoverable Elements in Soil/Waste	TRH (Total Recoverable Hydrocarbons) in Soil	VOC's in Soil	Volatile Petroleum Hydrocarbons in Soil
025	D4	29	14	26	7	10	11	7
026	D5	29	14	26	7	10	11	7

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE222853

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N5482-Soil**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
001	BH1.1	2	1	1
002	BH1.2	2	1	1
003	BH2	2	1	1
004	BH3.1	2	1	1
005	BH3.2	2	1	1
006	BH4	2	1	1
007	BH5.1	2	1	1
008	BH5.2	2	1	1
009	BH6	2	1	1
010	BH7.1	2	1	1
011	BH7.2	2	1	1
012	BH8	2	1	1
013	BH9.1	2	1	1
014	BH9.2	2	1	1
015	BH10	2	1	1
016	BH11	2	1	1
017	BH12.1	2	1	1
018	BH12.2	2	1	1
019	BH13	2	1	1
020	BH14.1	2	1	1
021	BH14.2	2	1	1
022	D1	2	1	1
023	D2	2	1	1
024	D3	2	1	1

CONTINUED OVERLEAF

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

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE222853

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N5482-Soil**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content
025	D4	2	1	1
026	D5	2	1	1

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Contact Admin
Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

Telephone 0416 680 375
Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **N5482-W**
Order Number **N5482-W**
Samples 4

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 **SE223153 R0**
Date Received 1/9/2021
Date Reported 6/9/2021

COMMENTS

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

SIGNATORIES



Kamrul AHSAN
Senior Chemist



Ly Kim HA
Organic Section Head

VOCs in Water [AN433] Tested: 3/9/2021

PARAMETER	UOM	LOR	MW1	MW2	MW3	MW4
			WATER - 30/8/2021 SE223153.001	WATER - 30/8/2021 SE223153.002	WATER - 30/8/2021 SE223153.003	WATER - 30/8/2021 SE223153.004
Benzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3	<3
Naphthalene	µg/L	0.5	<0.5	<0.5	<0.5	<0.5

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 3/9/2021

PARAMETER	UOM	LOR	MW1	MW2	MW3	MW4
			WATER - 30/8/2021 SE223153.001	WATER - 30/8/2021 SE223153.002	WATER - 30/8/2021 SE223153.003	WATER - 30/8/2021 SE223153.004
TRH C6-C9	µg/L	40	<40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50	<50

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 2/9/2021

PARAMETER	UOM	LOR	MW1	MW2	MW3	MW4
			WATER - 30/8/2021 SE223153.001	WATER - 30/8/2021 SE223153.002	WATER - 30/8/2021 SE223153.003	WATER - 30/8/2021 SE223153.004
TRH C10-C14	µg/L	50	<50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	<320	<320

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 1/9/2021

PARAMETER	UOM	LOR	MW1	MW2	MW3	MW4
			WATER - 30/8/2021 SE223153.001	WATER - 30/8/2021 SE223153.002	WATER - 30/8/2021 SE223153.003	WATER - 30/8/2021 SE223153.004
Arsenic, As	µg/L	1	<1	<1	1	<1
Cadmium, Cd	µg/L	0.1	<0.1	0.1	0.3	<0.1
Chromium, Cr	µg/L	1	2	2	<1	5
Copper, Cu	µg/L	1	2	10	2	4
Lead, Pb	µg/L	1	<1	<1	<1	<1
Nickel, Ni	µg/L	1	9	18	13	12
Zinc, Zn	µg/L	5	48	130	66	38

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 2/9/2021

			MW1	MW2	MW3	MW4
			WATER	WATER	WATER	WATER
			-	-	-	-
			30/8/2021	30/8/2021	30/8/2021	30/8/2021
PARAMETER	UOM	LOR	SE223153.001	SE223153.002	SE223153.003	SE223153.004
Mercury	mg/L	0.0001	<0.0001	<0.0001	<0.0001	<0.0001

METHOD

METHODOLOGY SUMMARY

AN020

Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.

AN311(Perth)/AN312

Mercury by Cold Vapour AAS in Waters: 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.

AN318

Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).

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). Where F2 is corrected for Naphthalene, the VOC data for Naphthalene is used.

AN403

Additionally, the volatile C6-C9/C6-C10 fractions may be determined by a purge and trap technique and GC/MS because of the potential for volatiles loss. Total Recoverable Hydrocarbons - Silica (TRH-Silica) 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.

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.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
***	Indicates that both * and ** apply.	IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
		LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been 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 calculated 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:

- 1 Bq is equivalent to 27 pCi
- 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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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STATEMENT OF QA/QC PERFORMANCE

SE223153 R0

CLIENT DETAILS

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Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **N5482-W**
Order Number **N5482-W**
Samples 4

LABORATORY DETAILS

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SGS Reference **SE223153 R0**
Date Received 01 Sep 2021
Date Reported 06 Sep 2021

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.

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 (within the SGS Alexandria Environmental laboratory).

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	4 Water
Date documentation received	1/9/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	16°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

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

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE223153.001	LB231813	30 Aug 2021	01 Sep 2021	27 Sep 2021	02 Sep 2021	27 Sep 2021	02 Sep 2021
MW2	SE223153.002	LB231813	30 Aug 2021	01 Sep 2021	27 Sep 2021	02 Sep 2021	27 Sep 2021	02 Sep 2021
MW3	SE223153.003	LB231813	30 Aug 2021	01 Sep 2021	27 Sep 2021	02 Sep 2021	27 Sep 2021	02 Sep 2021
MW4	SE223153.004	LB231813	30 Aug 2021	01 Sep 2021	27 Sep 2021	02 Sep 2021	27 Sep 2021	02 Sep 2021

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE223153.001	LB231781	30 Aug 2021	01 Sep 2021	26 Feb 2022	01 Sep 2021	26 Feb 2022	01 Sep 2021
MW2	SE223153.002	LB231781	30 Aug 2021	01 Sep 2021	26 Feb 2022	01 Sep 2021	26 Feb 2022	01 Sep 2021
MW3	SE223153.003	LB231781	30 Aug 2021	01 Sep 2021	26 Feb 2022	01 Sep 2021	26 Feb 2022	01 Sep 2021
MW4	SE223153.004	LB231781	30 Aug 2021	01 Sep 2021	26 Feb 2022	01 Sep 2021	26 Feb 2022	01 Sep 2021

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE223153.001	LB231802	30 Aug 2021	01 Sep 2021	06 Sep 2021	02 Sep 2021	12 Oct 2021	06 Sep 2021
MW2	SE223153.002	LB231802	30 Aug 2021	01 Sep 2021	06 Sep 2021	02 Sep 2021	12 Oct 2021	06 Sep 2021
MW3	SE223153.003	LB231802	30 Aug 2021	01 Sep 2021	06 Sep 2021	02 Sep 2021	12 Oct 2021	06 Sep 2021
MW4	SE223153.004	LB231802	30 Aug 2021	01 Sep 2021	06 Sep 2021	02 Sep 2021	12 Oct 2021	06 Sep 2021

VOCs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE223153.001	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW2	SE223153.002	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW3	SE223153.003	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW4	SE223153.004	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021

Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE223153.001	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW2	SE223153.002	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW3	SE223153.003	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021
MW4	SE223153.004	LB231921	30 Aug 2021	01 Sep 2021	06 Sep 2021	03 Sep 2021	13 Oct 2021	06 Sep 2021

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	MW1	SE223153.001	%	40 - 130%	96
	MW2	SE223153.002	%	40 - 130%	97
	MW3	SE223153.003	%	40 - 130%	98
	MW4	SE223153.004	%	40 - 130%	95
d4-1,2-dichloroethane (Surrogate)	MW1	SE223153.001	%	40 - 130%	105
	MW2	SE223153.002	%	40 - 130%	107
	MW3	SE223153.003	%	40 - 130%	103
	MW4	SE223153.004	%	40 - 130%	109
d8-toluene (Surrogate)	MW1	SE223153.001	%	40 - 130%	99
	MW2	SE223153.002	%	40 - 130%	100
	MW3	SE223153.003	%	40 - 130%	99
	MW4	SE223153.004	%	40 - 130%	100

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	MW1	SE223153.001	%	40 - 130%	96
	MW2	SE223153.002	%	40 - 130%	97
	MW3	SE223153.003	%	40 - 130%	98
	MW4	SE223153.004	%	40 - 130%	95
d4-1,2-dichloroethane (Surrogate)	MW1	SE223153.001	%	60 - 130%	105
	MW2	SE223153.002	%	60 - 130%	107
	MW3	SE223153.003	%	60 - 130%	103
	MW4	SE223153.004	%	60 - 130%	109
d8-toluene (Surrogate)	MW1	SE223153.001	%	40 - 130%	99
	MW2	SE223153.002	%	40 - 130%	100
	MW3	SE223153.003	%	40 - 130%	99
	MW4	SE223153.004	%	40 - 130%	100

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 (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Parth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB231813.001	Mercury	mg/L	0.0001	<0.0001

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB231781.001	Arsenic, As	µg/L	1	<1
	Cadmium, Cd	µg/L	0.1	<0.1
	Chromium, Cr	µg/L	1	<1
	Copper, Cu	µg/L	1	<1
	Lead, Pb	µg/L	1	<1
	Nickel, Ni	µg/L	1	<1
	Zinc, Zn	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB231802.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB231921.001	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	d4-1,2-dichloroethane (Surrogate)	%	-	103
		d8-toluene (Surrogate)	%	-	94
		Bromofluorobenzene (Surrogate)	%	-	92

Volatile Petroleum Hydrocarbons in Water

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

Sample Number	Parameter	Units	LOR	Result
LB231921.001	TRH C6-C9	µg/L	40	<40
	Surrogates			
	d4-1,2-dichloroethane (Surrogate)	%	-	103
	d8-toluene (Surrogate)	%	-	94
	Bromofluorobenzene (Surrogate)	%	-	92

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Porth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223155.008	LB231813.014	Mercury	µg/L	0.0001	<0.0001	0.0001	64	7

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223153.004	LB231781.013	Arsenic, As	µg/L	1	<1	<1	164	0
		Cadmium, Cd	µg/L	0.1	<0.1	0.1	126	3
		Chromium, Cr	µg/L	1	5	5	37	1
		Copper, Cu	µg/L	1	4	3	43	1
		Lead, Pb	µg/L	1	<1	<1	200	0
		Nickel, Ni	µg/L	1	12	12	23	4
		Zinc, Zn	µg/L	5	38	37	28	4

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE223153.004	LB231921.025	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.9	9.7	30	11
			d8-toluene (Surrogate)	µg/L	-	10.0	9.8	30	2
			Bromofluorobenzene (Surrogate)	µg/L	-	9.5	9.9	30	4

Volatile Petroleum Hydrocarbons in Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE223153.004	LB231921.025	TRH C6-C10	µg/L	50	<50	<50	200	0	
		TRH C6-C9	µg/L	40	<40	<40	200	0	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.9	9.7	30	11
		d8-toluene (Surrogate)	µg/L	-	10.0	9.8	30	2	
		Bromofluorobenzene (Surrogate)	µg/L	-	9.5	9.9	30	4	
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
		TRH C6-C10 minus RTEX (F1)	µg/L	50	<50	<50	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.

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231781.002	Arsenic, As	µg/L	1	19	20	80 - 120	93
	Cadmium, Cd	µg/L	0.1	21	20	80 - 120	105
	Chromium, Cr	µg/L	1	21	20	80 - 120	107
	Copper, Cu	µg/L	1	22	20	80 - 120	110
	Lead, Pb	µg/L	1	19	20	80 - 120	96
	Nickel, Ni	µg/L	1	21	20	80 - 120	104
	Zinc, Zn	µg/L	5	22	20	80 - 120	112

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231802.002	TRH C10-C14	µg/L	50	1200	1200	60 - 140	99
	TRH C15-C28	µg/L	200	1400	1200	60 - 140	120
	TRH C29-C36	µg/L	200	1400	1200	60 - 140	120
	TRH F Bands						
	TRH >C10-C16	µg/L	60	1300	1200	60 - 140	111
	TRH >C16-C34 (F3)	µg/L	500	1500	1200	60 - 140	125
	TRH >C34-C40 (F4)	µg/L	500	700	600	60 - 140	116

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB231921.002	Monocyclic	Benzene	µg/L	0.5	51	45.45	60 - 140	112
	Aromatic	Toluene	µg/L	0.5	51	45.45	60 - 140	112
		Ethylbenzene	µg/L	0.5	51	45.45	60 - 140	111
		m/p-xylene	µg/L	1	100	90.9	60 - 140	111
	o-xylene	µg/L	0.5	51	45.45	60 - 140	112	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.9	10	60 - 140	99
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	10.4	10	70 - 130	104

Volatile Petroleum Hydrocarbons in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB231921.002	TRH C6-C10	µg/L	50	920	946.63	60 - 140	97	
	TRH C6-C9	µg/L	40	810	818.71	60 - 140	99	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.9	10	60 - 140	99
		d8-toluene (Surrogate)	µg/L	-	10.2	10	70 - 130	102
		Bromofluorobenzene (Surrogate)	µg/L	-	10.4	10	70 - 130	104
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	610	639.67	60 - 140	96

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE223135.011	LB231781.004	Arsenic, As	µg/L	1	20	-0.014	20	100
		Cadmium, Cd	µg/L	0.1	22	0.005	20	110
		Chromium, Cr	µg/L	1	23	0.204	20	115
		Copper, Cu	µg/L	1	24	0.03	20	119
		Lead, Pb	µg/L	1	20	0.082	20	102
		Nickel, Ni	µg/L	1	22	0.06	20	110
		Zinc, Zn	µg/L	5	27	5.82	20	104

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
MB	LB231921.026	Monocyclic	Benzene	µg/L	0.5	ERROR	45.45	126
		Aromatic	Toluene	µg/L	0.5	ERROR	45.45	120
			Ethylbenzene	µg/L	0.5	ERROR	45.45	119
			m/p-xylene	µg/L	1	ERROR	90.9	119
			o-xylene	µg/L	0.5	ERROR	45.45	117
			Polycyclic	Naphthalene	µg/L	0.5	ERROR	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	ERROR	-	101
			d8-toluene (Surrogate)	µg/L	-	ERROR	-	100
			Bromofluorobenzene (Surrogate)	µg/L	-	ERROR	-	102

Volatile Petroleum Hydrocarbons in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Original	Spike	Recovery%	
MB	LB231921.026	TRH C6-C10	µg/L	50	ERROR	946.63	111	
		TRH C6-C9	µg/L	40	ERROR	818.71	111	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	ERROR	-	101
			d8-toluene (Surrogate)	µg/L	-	ERROR	-	100
			Bromofluorobenzene (Surrogate)	µg/L	-	ERROR	-	102
		VPH F	Benzene (F0)	µg/L	0.5	ERROR	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	ERROR	639.67	112

Matrix spike duplicates are calculated as Relative Percent Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the

No matrix spike duplicates were required for this job.

id samples expressed on a dry weight basis.

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: https://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.
- *** Indicates that both * and ** apply.
- 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 relevant report comments for further information.

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Page 1 of 1

Email Results: [Read Comment section.]



Comments: Email Reports and Invoices to all emails $\Rightarrow$ ① nick@neoconsulting.com.au ② admin@neoconsulting.com.au ③ sarah@neoconsulting.com.au ④ whae@neoconsulting.com.au ⑤ Oskar@neoconsulting.com.au ⑥ Ehsan@neoconsulting.com.au



SAMPLE RECEIPT ADVICE

SE223153

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Email admin@neoconsulting.com.au

Project **N5482-W**
Order Number (Not specified)
Samples 4

LABORATORY DETAILS

Manager Huong Crawford
Laboratory SGS Alexandria Environmental
Address Unit 16, 33 Maddox St
Alexandria NSW 2015

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Samples Received Wed 1/9/2021
Report Due Mon 6/9/2021
SGS Reference **SE223153**

SUBMISSION DETAILS

This is to confirm that 4 samples were received on Wednesday 1/9/2021. Results are expected to be ready by COB Monday 6/9/2021. Please quote SGS reference SE223153 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	4 Water
Date documentation received	1/9/2021	Type of documentation received	COC
Samples received in good order	Yes	Samples received without headspace	Yes
Sample temperature upon receipt	16°C	Sufficient sample for analysis	Yes
Turnaround time requested	Three Days		

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

This document is issued by the Company under its General Conditions of Service accessible at www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



SAMPLE RECEIPT ADVICE

SE223153

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N5482-W**

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
001	MW1	1	7	9	11	7
002	MW2	1	7	9	11	7
003	MW3	1	7	9	11	7
004	MW4	1	7	9	11	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

CLIENT DETAILS

Contact Admin
Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

Telephone 0416 680 375
Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **M20064**
Order Number **M20064**
Samples 14

LABORATORY DETAILS

Manager Shane McDermott
Laboratory SGS Alexandria Environmental
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Alexandria NSW 2015

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Facsimile +61 2 8594 0499
Email au.environmental.sydney@sgs.com

SGS Reference **SE285729 R0**
Date Received 4/7/2025
Date Reported 11/7/2025

COMMENTS

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

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

A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Industries and Environment recommends supplying approximately 50-100g of sample in a separate container.

Asbestos analysed by Approved Identifier Cameron Smith.

SIGNATORIES



Akheeqar BENIAMEEN
Chemist



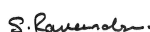
Dong LIANG
Metals/Inorganics Team Leader



Kamrul AHSAN
Senior Chemist



Ly Kim HA
Organic Section Head



Ravee SIVASUBRAMANIAM
Hygiene Team Leader



Shane MCDERMOTT
Laboratory Manager

VOC's in Soil [AN433] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.001	4/7/2025 SE285729.002	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Ethylbenzene	mg/kg	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
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Xylenes*	mg/kg	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
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH19	BH20.1	BH20.2	D1	TS
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.006	4/7/2025 SE285729.007	4/7/2025 SE285729.008	4/7/2025 SE285729.009	4/7/2025 SE285729.010
Benzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[105%]
Toluene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[105%]
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[105%]
m/p-xylene	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	[104%]
o-xylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	[104%]
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	-
Total BTEX*	mg/kg	0.6	<0.6	<0.6	<0.6	<0.6	-
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	-

PARAMETER	UOM	LOR	TB
			SOIL
			-
			4/7/2025 SE285729.011
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
Total Xylenes*	mg/kg	0.3	<0.3
Total BTEX*	mg/kg	0.6	<0.6
Naphthalene (VOC)*	mg/kg	0.1	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.001	4/7/2025 SE285729.002	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005
TRH C6-C9	mg/kg	20	<20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25	<25

PARAMETER	UOM	LOR	BH19	BH20.1	BH20.2	D1
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			4/7/2025 SE285729.006	4/7/2025 SE285729.007	4/7/2025 SE285729.008	4/7/2025 SE285729.009
TRH C6-C9	mg/kg	20	<20	<20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			4/7/2025 SE285729.001	4/7/2025 SE285729.002	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	58	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

PARAMETER	UOM	LOR	BH19	BH20.1	BH20.2	D1
			SOIL	SOIL	SOIL	SOIL
			4/7/2025 SE285729.006	4/7/2025 SE285729.007	4/7/2025 SE285729.008	4/7/2025 SE285729.009
TRH C10-C14	mg/kg	20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			4/7/2025 SE285729.001	4/7/2025 SE285729.002	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005
Naphthalene	mg/kg	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
1-methylnaphthalene	mg/kg	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
Acenaphthene	mg/kg	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
Phenanthrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.1	<0.1	0.3	<0.1	<0.1
Pyrene	mg/kg	0.1	0.1	<0.1	0.3	<0.1	<0.1
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	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
Benzo(ghi)perylene	mg/kg	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	<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	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2	0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	1.4	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	1.4	<0.8	<0.8

PARAMETER	UOM	LOR	BH19	BH20.1	BH20.2	D1
			SOIL	SOIL	SOIL	SOIL
			4/7/2025 SE285729.006	4/7/2025 SE285729.007	4/7/2025 SE285729.008	4/7/2025 SE285729.009
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	0.2	<0.1	0.1	0.2
Pyrene	mg/kg	0.1	0.2	<0.1	0.1	0.2
Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Chrysene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	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
Benzo(ghi)perylene	mg/kg	0.1	<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	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<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	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8	<0.8	<0.8

OP Pesticides in Soil [AN420] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH16	BH17	BH18	BH19
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.001	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005	4/7/2025 SE285729.006
Dichlorvos	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Malathion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Methidathion	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethion	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	<1.7	<1.7	<1.7

PARAMETER	UOM	LOR	BH20.1
			SOIL
			-
			4/7/2025 SE285729.007
Dichlorvos	mg/kg	0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5
Fenitrothion	mg/kg	0.2	<0.2
Malathion	mg/kg	0.2	<0.2
Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
Bromophos Ethyl	mg/kg	0.2	<0.2
Methidathion	mg/kg	0.5	<0.5
Ethion	mg/kg	0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7

OC Pesticides in Soil [AN420] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH16	BH17	BH18	BH19
			SOIL	SOIL	SOIL	SOIL	SOIL
			4/7/2025 SE285729.001	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005	4/7/2025 SE285729.006
Alpha BHC	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Hexachlorobenzene (HCB)	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
Lindane (gamma 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	mg/kg	0.1	<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
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
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
Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Alpha Endosulfan	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	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Endrin	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
p,p'-DDD	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
Endosulfan sulphate	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
Endrin ketone	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total OC Pesticides	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total OC VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total Other OCP VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

OC Pesticides in Soil [AN420] Tested: 7/7/2025 (continued)

			BH20.1
			SOIL
			-
			4/7/2025
			SE285729.007
PARAMETER	UOM	LOR	
Alpha BHC	mg/kg	0.1	<0.1
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1
Lindane (gamma BHC)	mg/kg	0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1
Aldrin	mg/kg	0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1
Gamma Chlordane	mg/kg	0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1
Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1
Alpha Endosulfan	mg/kg	0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1
Dieldrin	mg/kg	0.1	<0.1
Endrin	mg/kg	0.1	<0.1
Beta Endosulfan	mg/kg	0.1	<0.1
p,p'-DDD	mg/kg	0.1	<0.1
Endrin aldehyde	mg/kg	0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1
Endrin ketone	mg/kg	0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1
Mirex	mg/kg	0.1	<0.1
Total OC Pesticides	mg/kg	0.1	<0.1
Total OC VIC EPA IWRG621	mg/kg	0.1	<0.1
Total Other OCP VIC EPA IWRG621	mg/kg	0.1	<0.1

PCBs in Soil [AN420] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH16	BH17	BH18	BH19
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.001	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005	4/7/2025 SE285729.006
Arochlor 1016	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1221	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1232	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1242	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1248	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1254	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arochlor 1260	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total PCBs	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH20.1
			SOIL
			-
			4/7/2025 SE285729.007
Arochlor 1016	mg/kg	0.1	<0.1
Arochlor 1221	mg/kg	0.1	<0.1
Arochlor 1232	mg/kg	0.1	<0.1
Arochlor 1242	mg/kg	0.1	<0.1
Arochlor 1248	mg/kg	0.1	<0.1
Arochlor 1254	mg/kg	0.1	<0.1
Arochlor 1260	mg/kg	0.1	<0.1
Total PCBs	mg/kg	0.1	<0.1

Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 7/7/2025

PARAMETER	UOM	LOR	BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025 SE285729.001	4/7/2025 SE285729.002	4/7/2025 SE285729.003	4/7/2025 SE285729.004	4/7/2025 SE285729.005
Arsenic, As	mg/kg	1	5	5	5	2	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	14	15	16	5.6	63
Copper, Cu	mg/kg	0.5	19	17	21	16	16
Lead, Pb	mg/kg	1	340	73	110	18	36
Nickel, Ni	mg/kg	0.5	5.0	4.1	4.0	3.4	4.2
Zinc, Zn	mg/kg	2	56	32	61	33	28

PARAMETER	UOM	LOR	BH19	BH20.1	BH20.2	D1
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			4/7/2025 SE285729.006	4/7/2025 SE285729.007	4/7/2025 SE285729.008	4/7/2025 SE285729.009
Arsenic, As	mg/kg	1	6	4	3	4
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	10	11	8.8	14
Copper, Cu	mg/kg	0.5	19	23	19	21
Lead, Pb	mg/kg	1	76	52	45	410
Nickel, Ni	mg/kg	0.5	4.4	4.4	3.7	4.8
Zinc, Zn	mg/kg	2	48	56	51	55



ANALYTICAL RESULTS

SE285729 R0

Mercury in Soil [AN312] Tested: 7/7/2025

			BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025	4/7/2025	4/7/2025	4/7/2025	4/7/2025
PARAMETER	UOM	LOR	SE285729.001	SE285729.002	SE285729.003	SE285729.004	SE285729.005
Mercury	mg/kg	0.05	0.06	<0.05	0.08	<0.05	0.07

			BH19	BH20.1	BH20.2	D1
			SOIL	SOIL	SOIL	SOIL
			-	-	-	-
			4/7/2025	4/7/2025	4/7/2025	4/7/2025
PARAMETER	UOM	LOR	SE285729.006	SE285729.007	SE285729.008	SE285729.009
Mercury	mg/kg	0.05	0.06	<0.05	<0.05	0.08



ANALYTICAL RESULTS

SE285729 R0

Moisture Content [AN002] Tested: 7/7/2025

			BH15.1	BH15.2	BH16	BH17	BH18
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025	4/7/2025	4/7/2025	4/7/2025	4/7/2025
PARAMETER	UOM	LOR	SE285729.001	SE285729.002	SE285729.003	SE285729.004	SE285729.005
% Moisture	%w/w	1	21.8	23.7	19.3	12.9	14.7

			BH19	BH20.1	BH20.2	D1	TB
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			4/7/2025	4/7/2025	4/7/2025	4/7/2025	4/7/2025
PARAMETER	UOM	LOR	SE285729.006	SE285729.007	SE285729.008	SE285729.009	SE285729.011
% Moisture	%w/w	1	21.6	18.0	18.6	22.2	<1.0

Fibre Identification in soil [AS4964/AN602] Tested: 9/7/2025

			BH15.1	BH16	BH17	BH18	BH19
			SOIL - 4/7/2025 SE285729.001	SOIL - 4/7/2025 SE285729.003	SOIL - 4/7/2025 SE285729.004	SOIL - 4/7/2025 SE285729.005	SOIL - 4/7/2025 SE285729.006
PARAMETER	UOM	LOR					
Asbestos Detected	No unit	-	No	No	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Date Analysed*	No unit	-	10/07/2025 00:00	10/07/2025 00:00	10/07/2025 00:00	10/07/2025 00:00	10/07/2025 00:00

			BH20.1
			SOIL - 4/7/2025 SE285729.007
PARAMETER	UOM	LOR	
Asbestos Detected	No unit	-	No
Estimated Fibres*	%w/w	0.01	<0.01
Date Analysed*	No unit	-	10/07/2025 00:00



ANALYTICAL RESULTS

SE285729 R0

VOCs in Water [AN433] Tested: 8/7/2025

PARAMETER	UOM	LOR	MW1	MW2	MW3
			WATER - 4/7/2025 SE285729.012	WATER - 4/7/2025 SE285729.013	WATER - 4/7/2025 SE285729.014
Benzene	µg/L	0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	<0.5	<0.5	<0.5
m/p-xylene	µg/L	1	<1	<1	<1
o-xylene	µg/L	0.5	<0.5	<0.5	<0.5
Total Xylenes	µg/L	1.5	<1.5	<1.5	<1.5
Total BTEX	µg/L	3	<3	<3	<3
Naphthalene (VOC)*	µg/L	0.5	<0.5	<0.5	<0.5



ANALYTICAL RESULTS

SE285729 R0

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 8/7/2025

			MW1	MW2	MW3
			WATER	WATER	WATER
			-	-	-
			4/7/2025	4/7/2025	4/7/2025
			SE285729.012	SE285729.013	SE285729.014
PARAMETER	UOM	LOR			
TRH C6-C9	µg/L	40	<40	<40	<40
Benzene (F0)	µg/L	0.5	<0.5	<0.5	<0.5
TRH C6-C10	µg/L	50	<50	<50	<50
TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	<50



ANALYTICAL RESULTS

SE285729 R0

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 8/7/2025

PARAMETER	UOM	LOR	MW1	MW2	MW3
			WATER - 4/7/2025 SE285729.012	WATER - 4/7/2025 SE285729.013	WATER - 4/7/2025 SE285729.014
TRH C10-C14	µg/L	50	<50	<50	<50
TRH C15-C28	µg/L	200	<200	<200	<200
TRH C29-C36	µg/L	200	<200	<200	<200
TRH C37-C40	µg/L	200	<200	<200	<200
TRH >C10-C16	µg/L	60	<60	<60	<60
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	<60
TRH >C16-C34 (F3)	µg/L	500	<500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500	<500
TRH C10-C40	µg/L	320	<320	<320	<320

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 8/7/2025

PARAMETER	UOM	LOR	MW1	MW2	MW3
			WATER - 4/7/2025 SE285729.012	WATER - 4/7/2025 SE285729.013	WATER - 4/7/2025 SE285729.014
Naphthalene	µg/L	0.1	<0.1	<0.1	<0.1
2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthylene	µg/L	0.1	<0.1	<0.1	<0.1
Acenaphthene	µg/L	0.1	<0.1	<0.1	<0.1
Fluorene	µg/L	0.1	<0.1	<0.1	<0.1
Phenanthrene	µg/L	0.1	<0.1	<0.1	<0.1
Anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<1	<1	<1



ANALYTICAL RESULTS

SE285729 R0

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 8/7/2025

			MW1	MW2	MW3
			WATER	WATER	WATER
			-	-	-
			4/7/2025	4/7/2025	4/7/2025
			SE285729.012	SE285729.013	SE285729.014
PARAMETER	UOM	LOR			
Arsenic	µg/L	1	<1	1	<1
Cadmium	µg/L	0.1	<0.1	0.2	<0.1
Chromium	µg/L	1	<1	<1	<1
Copper	µg/L	1	3	2	<1
Lead	µg/L	1	<1	<1	<1
Nickel	µg/L	1	11	16	20
Zinc	µg/L	5	55	110	42



ANALYTICAL RESULTS

SE285729 R0

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 7/7/2025

			MW1	MW2	MW3
			WATER	WATER	WATER
			-	-	-
			4/7/2025	4/7/2025	4/7/2025
PARAMETER	UOM	LOR	SE285729.012	SE285729.013	SE285729.014
Mercury	mg/L	0.0001	0.0001	<0.0001	<0.0001

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.
AN020	Unpreserved water sample is filtered through a 0.45µm membrane filter and acidified with nitric acid similar to APHA3030B.
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.
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 AAS or ICP as per USEPA Method 200.8.
AN311(Perth)/AN312	Mercury by Cold Vapour AAS in Waters: 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.
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
AN318	Determination of elements at trace level in waters by ICP-MS technique,, referenced to USEPA 6020B and USEPA 200.8 (5.4).
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 Recoverable Hydrocarbons - Silica (TRH-Si) 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). Total PAH calculated from individual analyte detections at or above the limit of reporting .
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/AS4964	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/AS4964	Fibres/material that cannot be unequivocally 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

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/reporting limit (RL) 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/AS4964

The sample can be reported "no asbestos found at the reporting limit (RL) 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.

FOOTNOTES

*	NATA accreditation does not cover the performance of this service.	-	Not analysed.	UOM	Unit of Measure.
**	Indicative data, theoretical holding time exceeded.	NVL	Not validated.	LOR	Limit of Reporting.
		IS	Insufficient sample for analysis.	↑↓	Raised/lowered Limit of Reporting.
***	Indicates that both * and ** apply.	LNR	Sample listed, but not received.		

Unless it is reported that sampling has been performed by SGS, the samples have been 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 calculated 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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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STATEMENT OF QA/QC PERFORMANCE

SE285729 R0

CLIENT DETAILS

Contact Admin
Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

Telephone 0416 680 375
Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **M20064**
Order Number **M20064**
Samples 14

LABORATORY DETAILS

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SGS Reference **SE285729 R0**
Date Received 04 Jul 2025
Date Reported 11 Jul 2025

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.

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	2 items
	VOCs in Water	1 item
	Volatile Petroleum Hydrocarbons in Water	1 item
LCS	VOC's in Soil	5 items
	Volatile Petroleum Hydrocarbons in Soil	2 items
Matrix Spike	Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES	1 item
	VOC's in Soil	5 items
	Volatile Petroleum Hydrocarbons in Soil	2 items

SAMPLE SUMMARY

Sample counts by matrix	11 Soil, 3 Water	Type of documentation received	COC
Date documentation received	4/7/2025	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	12.2°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

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

Fibre Identification in soil**Method: ME-(AU)-[ENV]AS4964/AN602**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025
BH16	SE285729.003	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025
BH17	SE285729.004	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025
BH18	SE285729.005	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025
BH19	SE285729.006	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025
BH20.1	SE285729.007	LB353654	04 Jul 2025	04 Jul 2025	04 Jul 2026	09 Jul 2025	04 Jul 2026	11 Jul 2025

Mercury (dissolved) in Water**Method: ME-(AU)-[ENV]AN311(Perth)/AN312**

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353302	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	07 Jul 2025
MW2	SE285729.013	LB353302	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	07 Jul 2025
MW3	SE285729.014	LB353302	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	07 Jul 2025

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH15.2	SE285729.002	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH16	SE285729.003	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH17	SE285729.004	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH18	SE285729.005	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH19	SE285729.006	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH20.1	SE285729.007	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
BH20.2	SE285729.008	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025
D1	SE285729.009	LB353323	04 Jul 2025	04 Jul 2025	01 Aug 2025	07 Jul 2025	01 Aug 2025	09 Jul 2025

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH15.2	SE285729.002	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH16	SE285729.003	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH17	SE285729.004	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH18	SE285729.005	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH19	SE285729.006	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH20.1	SE285729.007	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
BH20.2	SE285729.008	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
D1	SE285729.009	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025
TB	SE285729.011	LB353321	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	12 Jul 2025	08 Jul 2025

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH15.2	SE285729.002	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
BH16	SE285729.003	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH17	SE285729.004	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH18	SE285729.005	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH19	SE285729.006	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.1	SE285729.007	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.2	SE285729.008	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
D1	SE285729.009	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH15.2	SE285729.002	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
BH16	SE285729.003	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH17	SE285729.004	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH18	SE285729.005	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH19	SE285729.006	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.1	SE285729.007	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.2	SE285729.008	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
D1	SE285729.009	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025

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

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
BH15.1	SE285729.001	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH15.2	SE285729.002	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH16	SE285729.003	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH17	SE285729.004	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH18	SE285729.005	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH19	SE285729.006	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.1	SE285729.007	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.2	SE285729.008	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
D1	SE285729.009	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025
MW2	SE285729.013	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025
MW3	SE285729.014	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025

PCBs in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH15.2	SE285729.002	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
BH16	SE285729.003	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH17	SE285729.004	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH18	SE285729.005	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH19	SE285729.006	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.1	SE285729.007	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.2	SE285729.008	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025
D1	SE285729.009	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	09 Jul 2025

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
BH15.1	SE285729.001	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH15.2	SE285729.002	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH16	SE285729.003	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH17	SE285729.004	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH18	SE285729.005	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH19	SE285729.006	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH20.1	SE285729.007	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
BH20.2	SE285729.008	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025
D1	SE285729.009	LB353322	04 Jul 2025	04 Jul 2025	31 Dec 2025	07 Jul 2025	31 Dec 2025	08 Jul 2025

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353441	04 Jul 2025	04 Jul 2025	31 Dec 2025	08 Jul 2025	31 Dec 2025	09 Jul 2025
MW2	SE285729.013	LB353441	04 Jul 2025	04 Jul 2025	31 Dec 2025	08 Jul 2025	31 Dec 2025	09 Jul 2025
MW3	SE285729.014	LB353441	04 Jul 2025	04 Jul 2025	31 Dec 2025	08 Jul 2025	31 Dec 2025	09 Jul 2025

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
BH15.1	SE285729.001	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH15.2	SE285729.002	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH16	SE285729.003	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH17	SE285729.004	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH18	SE285729.005	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH19	SE285729.006	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.1	SE285729.007	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
BH20.2	SE285729.008	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025
D1	SE285729.009	LB353293	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	16 Aug 2025	08 Jul 2025

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025
MW2	SE285729.013	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025
MW3	SE285729.014	LB353444	04 Jul 2025	04 Jul 2025	11 Jul 2025	08 Jul 2025	17 Aug 2025	10 Jul 2025



HOLDING TIME SUMMARY

SE285729 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

VOC's in Soil

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH15.2	SE285729.002	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH16	SE285729.003	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH17	SE285729.004	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH18	SE285729.005	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH19	SE285729.006	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH20.1	SE285729.007	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH20.2	SE285729.008	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
D1	SE285729.009	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
TS	SE285729.010	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
TB	SE285729.011	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025

VOCs in Water

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025
MW2	SE285729.013	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025
MW3	SE285729.014	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH15.1	SE285729.001	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH15.2	SE285729.002	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH16	SE285729.003	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH17	SE285729.004	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH18	SE285729.005	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH19	SE285729.006	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH20.1	SE285729.007	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
BH20.2	SE285729.008	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
D1	SE285729.009	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	08 Jul 2025
TS	SE285729.010	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	09 Jul 2025
TB	SE285729.011	LB353320	04 Jul 2025	04 Jul 2025	18 Jul 2025	07 Jul 2025	18 Jul 2025	09 Jul 2025

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
MW1	SE285729.012	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025
MW2	SE285729.013	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025
MW3	SE285729.014	LB353453	04 Jul 2025	04 Jul 2025	18 Jul 2025	08 Jul 2025	18 Jul 2025	09 Jul 2025

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 identifier 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)	BH15.1	SE285729.001	%	60 - 130%	96
	BH16	SE285729.003	%	60 - 130%	95
	BH17	SE285729.004	%	60 - 130%	91
	BH18	SE285729.005	%	60 - 130%	94
	BH19	SE285729.006	%	60 - 130%	92
	BH20.1	SE285729.007	%	60 - 130%	93

OP Pesticides in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	98
	BH16	SE285729.003	%	60 - 130%	93
	BH17	SE285729.004	%	60 - 130%	88
	BH18	SE285729.005	%	60 - 130%	93
	BH19	SE285729.006	%	60 - 130%	91
	BH20.1	SE285729.007	%	60 - 130%	92
d14-p-terphenyl (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	93
	BH16	SE285729.003	%	60 - 130%	90
	BH17	SE285729.004	%	60 - 130%	83
	BH18	SE285729.005	%	60 - 130%	89
	BH19	SE285729.006	%	60 - 130%	90
	BH20.1	SE285729.007	%	60 - 130%	92

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH15.1	SE285729.001	%	70 - 130%	98
	BH15.2	SE285729.002	%	70 - 130%	94
	BH16	SE285729.003	%	70 - 130%	93
	BH17	SE285729.004	%	70 - 130%	88
	BH18	SE285729.005	%	70 - 130%	93
	BH19	SE285729.006	%	70 - 130%	91
	BH20.1	SE285729.007	%	70 - 130%	92
	BH20.2	SE285729.008	%	70 - 130%	90
	D1	SE285729.009	%	70 - 130%	98
d14-p-terphenyl (Surrogate)	BH15.1	SE285729.001	%	70 - 130%	93
	BH15.2	SE285729.002	%	70 - 130%	93
	BH16	SE285729.003	%	70 - 130%	90
	BH17	SE285729.004	%	70 - 130%	83
	BH18	SE285729.005	%	70 - 130%	89
	BH19	SE285729.006	%	70 - 130%	90
	BH20.1	SE285729.007	%	70 - 130%	92
	BH20.2	SE285729.008	%	70 - 130%	90
	D1	SE285729.009	%	70 - 130%	93
d5-nitrobenzene (Surrogate)	BH15.1	SE285729.001	%	70 - 130%	92
	BH15.2	SE285729.002	%	70 - 130%	88
	BH16	SE285729.003	%	70 - 130%	90
	BH17	SE285729.004	%	70 - 130%	88
	BH18	SE285729.005	%	70 - 130%	93
	BH19	SE285729.006	%	70 - 130%	90
	BH20.1	SE285729.007	%	70 - 130%	92
	BH20.2	SE285729.008	%	70 - 130%	90
	D1	SE285729.009	%	70 - 130%	95

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	MW1	SE285729.012	%	40 - 130%	68
	MW2	SE285729.013	%	40 - 130%	80
	MW3	SE285729.014	%	40 - 130%	80
d14-p-terphenyl (Surrogate)	MW1	SE285729.012	%	40 - 130%	70
	MW2	SE285729.013	%	40 - 130%	80
	MW3	SE285729.014	%	40 - 130%	82
d5-nitrobenzene (Surrogate)	MW1	SE285729.012	%	40 - 130%	66
	MW2	SE285729.013	%	40 - 130%	76

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

PAH (Polynuclear Aromatic Hydrocarbons) in Water (continued)

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
d5-nitrobenzene (Surrogate)	MW3	SE285729.014	%	40 - 130%	76

PCBs in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
TCMX (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	96
	BH16	SE285729.003	%	60 - 130%	95
	BH17	SE285729.004	%	60 - 130%	91
	BH18	SE285729.005	%	60 - 130%	94
	BH19	SE285729.006	%	60 - 130%	92
	BH20.1	SE285729.007	%	60 - 130%	93

VOC's in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	96
	BH15.2	SE285729.002	%	60 - 130%	88
	BH16	SE285729.003	%	60 - 130%	91
	BH17	SE285729.004	%	60 - 130%	88
	BH18	SE285729.005	%	60 - 130%	103
	BH19	SE285729.006	%	60 - 130%	103
	BH20.1	SE285729.007	%	60 - 130%	88
	BH20.2	SE285729.008	%	60 - 130%	88
	D1	SE285729.009	%	60 - 130%	78
	TS	SE285729.010	%	60 - 130%	86
	TB	SE285729.011	%	60 - 130%	101
d4-1,2-dichloroethane (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	83
	BH15.2	SE285729.002	%	60 - 130%	74
	BH16	SE285729.003	%	60 - 130%	78
	BH17	SE285729.004	%	60 - 130%	75
	BH18	SE285729.005	%	60 - 130%	87
	BH19	SE285729.006	%	60 - 130%	86
	BH20.1	SE285729.007	%	60 - 130%	75
	BH20.2	SE285729.008	%	60 - 130%	75
	D1	SE285729.009	%	60 - 130%	67
	TS	SE285729.010	%	60 - 130%	82
	TB	SE285729.011	%	60 - 130%	82
d8-toluene (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	93
	BH15.2	SE285729.002	%	60 - 130%	84
	BH16	SE285729.003	%	60 - 130%	89
	BH17	SE285729.004	%	60 - 130%	85
	BH18	SE285729.005	%	60 - 130%	98
	BH19	SE285729.006	%	60 - 130%	94
	BH20.1	SE285729.007	%	60 - 130%	85
	BH20.2	SE285729.008	%	60 - 130%	84
	D1	SE285729.009	%	60 - 130%	75
	TS	SE285729.010	%	60 - 130%	92
	TB	SE285729.011	%	60 - 130%	92

VOCs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	MW1	SE285729.012	%	40 - 130%	92
	MW2	SE285729.013	%	40 - 130%	93
	MW3	SE285729.014	%	40 - 130%	92
d4-1,2-dichloroethane (Surrogate)	MW1	SE285729.012	%	40 - 130%	81
	MW2	SE285729.013	%	40 - 130%	81
	MW3	SE285729.014	%	40 - 130%	81
d8-toluene (Surrogate)	MW1	SE285729.012	%	40 - 130%	86
	MW2	SE285729.013	%	40 - 130%	86
	MW3	SE285729.014	%	40 - 130%	86

Volatile Petroleum Hydrocarbons in Soil

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

Parameter	Sample Name	Sample Number	Units
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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 identifier 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 %
Bromofluorobenzene (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	96
	BH15.2	SE285729.002	%	60 - 130%	88
	BH16	SE285729.003	%	60 - 130%	91
	BH17	SE285729.004	%	60 - 130%	88
	BH18	SE285729.005	%	60 - 130%	103
	BH19	SE285729.006	%	60 - 130%	103
	BH20.1	SE285729.007	%	60 - 130%	88
	BH20.2	SE285729.008	%	60 - 130%	88
	D1	SE285729.009	%	60 - 130%	78
d4-1,2-dichloroethane (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	83
	BH15.2	SE285729.002	%	60 - 130%	74
	BH16	SE285729.003	%	60 - 130%	78
	BH17	SE285729.004	%	60 - 130%	75
	BH18	SE285729.005	%	60 - 130%	87
	BH19	SE285729.006	%	60 - 130%	86
	BH20.1	SE285729.007	%	60 - 130%	75
	BH20.2	SE285729.008	%	60 - 130%	75
	D1	SE285729.009	%	60 - 130%	67
d8-toluene (Surrogate)	BH15.1	SE285729.001	%	60 - 130%	93
	BH15.2	SE285729.002	%	60 - 130%	84
	BH16	SE285729.003	%	60 - 130%	89
	BH17	SE285729.004	%	60 - 130%	85
	BH18	SE285729.005	%	60 - 130%	98
	BH19	SE285729.006	%	60 - 130%	94
	BH20.1	SE285729.007	%	60 - 130%	85
	BH20.2	SE285729.008	%	60 - 130%	84
	D1	SE285729.009	%	60 - 130%	75

Volatile Petroleum Hydrocarbons in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	MW1	SE285729.012	%	40 - 130%	92
	MW2	SE285729.013	%	40 - 130%	93
	MW3	SE285729.014	%	40 - 130%	92
d4-1,2-dichloroethane (Surrogate)	MW1	SE285729.012	%	60 - 130%	81
	MW2	SE285729.013	%	60 - 130%	81
	MW3	SE285729.014	%	60 - 130%	81
d8-toluene (Surrogate)	MW1	SE285729.012	%	40 - 130%	86
	MW2	SE285729.013	%	40 - 130%	86
	MW3	SE285729.014	%	40 - 130%	86

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 (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Porth)/AN312

Sample Number	Parameter	Units	LOR	Result
LB353302.001	Mercury	mg/L	0.0001	<0.0001

Mercury in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353323.001	Mercury	mg/kg	0.05	<0.05

OC Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	Alpha BHC	mg/kg	0.1	<0.1
	Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1
	Beta BHC	mg/kg	0.1	<0.1
	Lindane (gamma BHC)	mg/kg	0.1	<0.1
	Delta BHC	mg/kg	0.1	<0.1
	Heptachlor	mg/kg	0.1	<0.1
	Aldrin	mg/kg	0.1	<0.1
	Heptachlor epoxide	mg/kg	0.1	<0.1
	Gamma Chlordane	mg/kg	0.1	<0.1
	Alpha Chlordane	mg/kg	0.1	<0.1
	Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1
	Alpha Endosulfan	mg/kg	0.1	<0.1
	p,p'-DDE	mg/kg	0.1	<0.1
	Dieldrin	mg/kg	0.1	<0.1
	Endrin	mg/kg	0.1	<0.1
	Beta Endosulfan	mg/kg	0.1	<0.1
	p,p'-DDD	mg/kg	0.1	<0.1
	Endrin aldehyde	mg/kg	0.1	<0.1
	Endosulfan sulphate	mg/kg	0.1	<0.1
	p,p'-DDT	mg/kg	0.1	<0.1
	Endrin ketone	mg/kg	0.1	<0.1
	Methoxychlor	mg/kg	0.1	<0.1
	Mirex	mg/kg	0.1	<0.1
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	%	-	98

OP Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2
	Bromophos Ethyl	mg/kg	0.2	<0.2
	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2
	Diazinon (Dimpylate)	mg/kg	0.5	<0.5
	Dichlorvos	mg/kg	0.5	<0.5
	Dimethoate	mg/kg	0.5	<0.5
	Ethion	mg/kg	0.2	<0.2
	Fenitrothion	mg/kg	0.2	<0.2
	Malathion	mg/kg	0.2	<0.2
	Methidathion	mg/kg	0.5	<0.5
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2
	2-fluorobiphenyl (Surrogate)	%	-	96
	d14-p-terphenyl (Surrogate)	%	-	100
Surrogates				

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	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

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.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	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)	%	-	99
	2-fluorobiphenyl (Surrogate)	%	-	96
	d14-p-terphenyl (Surrogate)	%	-	100

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB353444.001	Naphthalene	µg/L	0.1	<0.1
	2-methylnaphthalene	µg/L	0.1	<0.1
	1-methylnaphthalene	µg/L	0.1	<0.1
	Acenaphthylene	µg/L	0.1	<0.1
	Acenaphthene	µg/L	0.1	<0.1
	Fluorene	µg/L	0.1	<0.1
	Phenanthrene	µg/L	0.1	<0.1
	Anthracene	µg/L	0.1	<0.1
	Fluoranthene	µg/L	0.1	<0.1
	Pyrene	µg/L	0.1	<0.1
	Benzo(a)anthracene	µg/L	0.1	<0.1
	Chrysene	µg/L	0.1	<0.1
	Benzo(a)pyrene	µg/L	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1
	Dibenzo(ah)anthracene	µg/L	0.1	<0.1
	Benzo(ghi)perylene	µg/L	0.1	<0.1
	Surrogates			
	d5-nitrobenzene (Surrogate)	%	-	88
	2-fluorobiphenyl (Surrogate)	%	-	90
	d14-p-terphenyl (Surrogate)	%	-	96

PCBs in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	Arochlor 1016	mg/kg	0.1	<0.1
	Arochlor 1221	mg/kg	0.1	<0.1
	Arochlor 1232	mg/kg	0.1	<0.1
	Arochlor 1242	mg/kg	0.1	<0.1
	Arochlor 1248	mg/kg	0.1	<0.1
	Arochlor 1254	mg/kg	0.1	<0.1
	Arochlor 1260	mg/kg	0.1	<0.1
	Total PCBs	mg/kg	0.1	<0.1
Surrogates	TCMX (Surrogate)	%	-	98

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

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

Sample Number	Parameter	Units	LOR	Result
LB353322.001	Arsenic, As	mg/kg	1	<1
	Cadmium, Cd	mg/kg	0.3	<0.3
	Chromium, Cr	mg/kg	0.5	<0.5
	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

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB353441.001	Arsenic	µg/L	1	<1
	Cadmium	µg/L	0.1	<0.1
	Chromium	µg/L	1	<1
	Copper	µg/L	1	<1

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.

Trace Metals (Dissolved) in Water by ICPMS (continued)

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result
LB353441.001	Lead	µg/L	1	<1
	Nickel	µg/L	1	<1
	Zinc	µg/L	5	<5

TRH (Total Recoverable Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353293.001	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

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result
LB353444.001	TRH C10-C14	µg/L	50	<50
	TRH C15-C28	µg/L	200	<200
	TRH C29-C36	µg/L	200	<200
	TRH C37-C40	µg/L	200	<200

VOC's in Soil

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

Sample Number		Parameter	Units	LOR	Result
LB353320.001	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 (VOC)*	mg/kg	0.1	<0.1
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	82
		d8-toluene (Surrogate)	%	-	92
		Bromofluorobenzene (Surrogate)	%	-	94
	Totals	Total BTEX*	mg/kg	0.6	<0.6

VOCs in Water

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

Sample Number		Parameter	Units	LOR	Result
LB353453.001	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 (VOC)*	µg/L	0.5	<0.5
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	81
		d8-toluene (Surrogate)	%	-	85
		Bromofluorobenzene (Surrogate)	%	-	109

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB353320.001	TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-

Volatile Petroleum Hydrocarbons in Water

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

Sample Number	Parameter	Units	LOR	Result	
LB353453.001	TRH C6-C9	µg/L	40	<40	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-	81
		d8-toluene (Surrogate)	%	-	85
		Bromofluorobenzene (Surrogate)	%	-	109

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Perth)/AN312

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.011	LB353302.014	Mercury	µg/L	0.0001	<0.0001	<0.0001	187	0
SE285729.014	LB353302.018	Mercury	µg/L	0.0001	<0.0001	<0.0001	158	0

Mercury in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353323.014	Mercury	mg/kg	0.05	0.22	0.20	54	10
SE285728.009	LB353323.023	Mercury	mg/kg	0.05	0.14	0.15	65	8

Moisture Content

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353321.013	% Moisture	%w/w	1	33.7	34.1	33	1
SE285728.009	LB353321.022	% Moisture	%w/w	1	27.4	27.7	34	1

OC Pesticides in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	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
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total OC Pesticides	mg/kg	0.1	<0.1	<0.1	200	0
SE285728.007	LB353293.026	Total OC VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	200	0
		Total Other OCP VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates						
		Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.49	0.48	30	3
		Alpha BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	200	0
		Beta BHC	mg/kg	0.1	<0.1	<0.1	200	0
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	200	0
		Delta BHC	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
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	200	0
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	200	0
		Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1	<0.1	200	0
		Alpha Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	200	0
		Dieldrin	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin	mg/kg	0.1	<0.1	<0.1	200	0
		Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

OC Pesticides in Soil (continued)

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.007	LB353293.026	p,p'-DDD	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	200	0
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	200	0
		p,p'-DDT	mg/kg	0.1	<0.1	<0.1	200	0
		Endrin ketone	mg/kg	0.1	<0.1	<0.1	200	0
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	200	0
		Mirex	mg/kg	0.1	<0.1	<0.1	200	0
		Total OC Pesticides	mg/kg	0.1	<0.1	<0.1	200	0
		Total OC VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	200	0
		Total Other OCP VIC EPA IWRG621	mg/kg	0.1	<0.1	<0.1	200	0
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.46	0.46	30	1	

OP Pesticides in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Methodathion	mg/kg	0.5	<0.5	<0.5	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE285728.007	LB353293.026	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	200	0
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	200	0
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	<0.2	<0.2	200	0
		Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5	200	0
		Dichlorvos	mg/kg	0.5	<0.5	<0.5	200	0
		Dimethoate	mg/kg	0.5	<0.5	<0.5	200	0
		Ethion	mg/kg	0.2	<0.2	<0.2	200	0
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	200	0
		Malathion	mg/kg	0.2	<0.2	<0.2	200	0
		Methodathion	mg/kg	0.5	<0.5	<0.5	200	0
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	200	0
		Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7	200	0
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	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	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&j)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	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

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.5	0.5	30	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4
SE285728.007	LB353293.026	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
		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	200	0
		Pyrene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	mg/kg	0.1	<0.1	<0.1	200	0
		Chrysene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(b&i)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	mg/kg	0.1	<0.1	<0.1	200	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/2*	mg/kg	0.2	<0.2	<0.2	175	0
		Carcinogenic PAHs, BaP TEQ <LOR=LOR*	mg/kg	0.3	<0.3	<0.3	134	0
		Total PAH (18)	mg/kg	0.8	<0.8	<0.8	200	0
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	0
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	0

PAH (Polynuclear Aromatic Hydrocarbons) in Water

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285729.012	LB353444.025	Naphthalene	µg/L	0.1	<0.1	<0.1	200	0
		2-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
		1-methylnaphthalene	µg/L	0.1	<0.1	<0.1	200	0
		Acenaphthylene	µg/L	0.1	<0.1	<0.1	200	0
		Acenaphthene	µg/L	0.1	<0.1	<0.1	200	0
		Fluorene	µg/L	0.1	<0.1	<0.1	200	0
		Phenanthrene	µg/L	0.1	<0.1	<0.1	200	0
		Anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Chrysene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(b&i)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1	200	0
		Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1	200	0
		Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1	200	0
		d5-nitrobenzene (Surrogate)	µg/L	-	0.3	0.3	30	3
		2-fluorobiphenyl (Surrogate)	µg/L	-	0.3	0.3	30	3
		d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.4	30	0

PCBs in Soil

Method: ME-(AU)-ENVJAN420

Original	Duplicate	Parameter	Units	LOR
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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

PCBs in Soil (continued)

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	Arochlor 1016	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1221	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1232	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1242	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1248	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1254	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1260	mg/kg	0.1	<0.1	<0.1	200	0
		Total PCBs	mg/kg	0.1	<0.1	<0.1	200	0
Surrogates	TCMX (Surrogate)	mg/kg	-	0.49	0.48	30	3	
SE285728.007	LB353293.026	Arochlor 1016	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1221	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1232	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1242	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1248	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1254	mg/kg	0.1	<0.1	<0.1	200	0
		Arochlor 1260	mg/kg	0.1	<0.1	<0.1	200	0
		Total PCBs	mg/kg	0.1	<0.1	<0.1	200	0
Surrogates	TCMX (Surrogate)	mg/kg	-	0.46	0.46	30	1	

Total Recoverable Elements in Soil/Waste Solids/Materials by ICP/OES

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353322.014	Arsenic, As	mg/kg	1	3	2	78	48
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	84	80	31	5
		Copper, Cu	mg/kg	0.5	39	37	31	7
		Nickel, Ni	mg/kg	0.5	15	13	34	10
		Lead, Pb	mg/kg	1	240	180	30	28
		Zinc, Zn	mg/kg	2	230	190	31	17
SE285728.009	LB353322.023	Arsenic, As	mg/kg	1	4	5	53	21
		Cadmium, Cd	mg/kg	0.3	<0.3	0.4	124	25
		Chromium, Cr	mg/kg	0.5	57	40	31	34 @
		Copper, Cu	mg/kg	0.5	41	41	31	1
		Nickel, Ni	mg/kg	0.5	17	16	33	4
		Lead, Pb	mg/kg	1	150	170	31	12
		Zinc, Zn	mg/kg	2	160	230	31	37 @

Trace Metals (Dissolved) in Water by ICP/MS

Method: ME-(AU)-[ENV]AN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285661.002	LB353441.014	Arsenic	µg/L	1	<1	<1	175	0
		Cadmium	µg/L	0.1	<0.1	<0.1	200	0
		Chromium	µg/L	1	<1	<1	200	0
		Copper	µg/L	1	<1	<1	200	0
		Lead	µg/L	1	<1	<1	200	0
		Nickel	µg/L	1	3	3	49	1
		Zinc	µg/L	5	6	6	98	3

TRH (Total Recoverable Hydrocarbons) in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353293.014	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 >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
SE285728.007	LB353293.026	TRH C10-C14	mg/kg	20	<20	<20	200	0
		TRH C15-C28	mg/kg	45	<45	<45	177	0
		TRH C29-C36	mg/kg	45	47	<45	146	5
		TRH C37-C40	mg/kg	100	<100	<100	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

TRH (Total Recoverable Hydrocarbons) in Soil (continued)

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.007	LB353293.026	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	176	0
		TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0

TRH (Total Recoverable Hydrocarbons) in Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285729.012	LB353444.026	TRH C10-C14	µg/L	50	<50	<50	200	0
		TRH C15-C28	µg/L	200	<200	<200	200	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH F Bands						
		TRH >C10-C16	µg/L	320	<320	<320	200	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0
SE285777.004	LB353444.025	TRH C10-C14	µg/L	50	<50	51	137	2
		TRH C15-C28	µg/L	200	<200	<200	179	0
		TRH C29-C36	µg/L	200	<200	<200	200	0
		TRH C37-C40	µg/L	200	<200	<200	200	0
		TRH F Bands						
		TRH >C10-C16	µg/L	320	<320	<320	168	0
		TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	68	126	12
		TRH >C16-C34 (F3)	µg/L	500	<500	<500	200	0
		TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353320.035	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
			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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	6.6	50	17
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.9	50	2
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	8.0	50	11
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0
SE285728.009	LB353320.027	Monocyclic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
			Aromatic	Toluene	mg/kg	0.1	<0.1	<0.1	200
			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 (VOC)*	mg/kg	0.1	<0.1	<0.1	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	8.4	50	8
			d8-toluene (Surrogate)	mg/kg	-	8.5	9.3	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.8	50	5
		Totals	Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0

VOCs in Water

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

Original	Duplicate		Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.011	LB353453.023	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
			Aromatic	Toluene	µg/L	0.5	0.7	0.8	95
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200	0
			m/p-xylene	µg/L	1	<1	<1	200	0
			o-xylene	µg/L	0.5	<0.5	<0.5	200	0
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	<0.5	<0.5	200	0
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	7.9	11.6	30	38 ①

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula: $RPD = | \text{OriginalResult} - \text{ReplicateResult} | \times 100 / \text{Mean}$

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: $MAD = 100 \times \text{SDL} / \text{Mean} + \text{LR}$

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

NOTE: The RPD reported is calculated from the unrounded data for the original and replicate result. Manual calculation of the RPD from the rounded data reported may

VOCs in Water (continued)

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.011	LB353453.023	Surrogates	d8-toluene (Surrogate)	µg/L	-	8.4	8.9	30
			Bromofluorobenzene (Surrogate)	µg/L	-	8.8	9.8	30
		Totals	Total BTEX	µg/L	3	<3	<3	200
								0
SE285777.001	LB353453.026	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200
			Ethylbenzene	µg/L	0.5	<0.5	<0.5	200
			m/p-xylene	µg/L	1	<1	<1	200
			o-xylene	µg/L	0.5	<0.5	<0.5	200
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	<0.5	<0.5	200
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.3	8.6	30
			d8-toluene (Surrogate)	µg/L	-	8.6	9.0	30
			Bromofluorobenzene (Surrogate)	µg/L	-	10.9	10.0	30
		Totals	Total BTEX	µg/L	3	<3	<3	200

Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.001	LB353320.035		TRH C6-C10	mg/kg	25	<25	<25	200
			TRH C6-C9	mg/kg	20	<20	<20	200
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	6.6	50
			d8-toluene (Surrogate)	mg/kg	-	8.1	7.9	50
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	8.0	50
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200
SE285728.009	LB353320.027		TRH C6-C10	mg/kg	25	<25	<25	200
			TRH C6-C9	mg/kg	20	<20	<20	200
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	8.4	50
			d8-toluene (Surrogate)	mg/kg	-	8.5	9.3	50
			Bromofluorobenzene (Surrogate)	mg/kg	-	9.3	9.8	50
		VPH F Bands	Benzene (F0)	mg/kg	0.1	<0.1	<0.1	200
			TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25	200

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE285728.011	LB353453.023		TRH C6-C10	µg/L	50	<50	<50	200
			TRH C6-C9	µg/L	40	<40	<40	200
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	7.9	11.6	30
			d8-toluene (Surrogate)	µg/L	-	8.4	8.9	30
			Bromofluorobenzene (Surrogate)	µg/L	-	8.8	9.8	30
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200
SE285777.001	LB353453.026		TRH C6-C10	µg/L	50	<50	<50	200
			TRH C6-C9	µg/L	40	<40	<40	200
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.3	8.6	30
			d8-toluene (Surrogate)	µg/L	-	8.6	9.0	30
			Bromofluorobenzene (Surrogate)	µg/L	-	10.9	10.0	30
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200
			TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	<50	200

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 %
LB35323.002	Mercury	mg/kg	0.05	0.21	0.2	80 - 120	106

OC Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353293.002	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	81
	Heptachlor	mg/kg	0.1	0.1	0.2	60 - 140	67
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	86
	Dieldrin	mg/kg	0.1	0.2	0.2	60 - 140	100
	Endrin	mg/kg	0.1	0.2	0.2	60 - 140	86
	p,p'-DDT	mg/kg	0.1	0.1	0.2	60 - 140	67
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.44	0.5	40 - 130	87

OP Pesticides in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353293.002	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.8	2	60 - 140	90
	Diazinon (Dimpylate)	mg/kg	0.5	2.2	2	60 - 140	108
	Dichlorvos	mg/kg	0.5	1.8	2	60 - 140	91
	Ethion	mg/kg	0.2	1.5	2	60 - 140	74
	Surrogates						
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	70 - 130	91
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	70 - 130	95

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353293.002	Naphthalene	mg/kg	0.1	4.2	4	60 - 140	106
	Acenaphthylene	mg/kg	0.1	4.0	4	60 - 140	101
	Acenaphthene	mg/kg	0.1	4.1	4	60 - 140	103
	Phenanthrene	mg/kg	0.1	4.6	4	60 - 140	115
	Anthracene	mg/kg	0.1	4.6	4	60 - 140	115
	Fluoranthene	mg/kg	0.1	5.0	4	60 - 140	125
	Pyrene	mg/kg	0.1	5.0	4	60 - 140	125
	Benzo(a)pyrene	mg/kg	0.1	4.3	4	60 - 140	108
	Surrogates						
	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	70 - 130	88
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.5	0.5	70 - 130	91
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	70 - 130	95

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353444.002	Naphthalene	µg/L	0.1	44	40	60 - 140	111
	Acenaphthylene	µg/L	0.1	49	40	60 - 140	123
	Acenaphthene	µg/L	0.1	48	40	60 - 140	121
	Phenanthrene	µg/L	0.1	49	40	60 - 140	124
	Anthracene	µg/L	0.1	44	40	60 - 140	111
	Fluoranthene	µg/L	0.1	48	40	60 - 140	121
	Pyrene	µg/L	0.1	49	40	60 - 140	123
	Benzo(a)pyrene	µg/L	0.1	54	40	60 - 140	135
	Surrogates						
	d5-nitrobenzene (Surrogate)	µg/L	-	0.4	0.5	40 - 130	76
	2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	86
	d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	76

PCBs in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353293.002	Arochlor 1260	mg/kg	0.1	0.4	0.4	60 - 140	94
	Surrogates	TCMX (Surrogate)	-	0.44	0.5	40 - 130	87

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 %
LB353322.002	Arsenic, As	mg/kg	1	370	318.22	80 - 120	116
	Cadmium, Cd	mg/kg	0.3	4.6	4.81	70 - 130	95
	Chromium, Cr	mg/kg	0.5	40	38.31	80 - 120	104
	Copper, Cu	mg/kg	0.5	340	290	80 - 120	116
	Nickel, Ni	mg/kg	0.5	200	187	80 - 120	105

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.

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

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353322.002	Lead, Pb	mg/kg	1	93	89.9	80 - 120	103
	Zinc, Zn	mg/kg	2	290	273	80 - 120	105

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353441.002	Arsenic	µg/L	1	20	20	80 - 120	102
	Cadmium	µg/L	0.1	22	20	80 - 120	108
	Chromium	µg/L	1	21	20	80 - 120	106
	Copper	µg/L	1	21	20	80 - 120	105
	Lead	µg/L	1	21	20	80 - 120	104
	Nickel	µg/L	1	21	20	80 - 120	104
	Zinc	µg/L	5	20	20	80 - 120	99

TRH (Total Recoverable Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353293.002	TRH C10-C14	mg/kg	20	200	200	60 - 140	101
	TRH F Bands TRH >C10-C16	mg/kg	25	200	200	60 - 140	102

TRH (Total Recoverable Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353444.002	TRH C10-C14	µg/L	50	790	1000	60 - 140	79
	TRH F Bands TRH >C10-C16	µg/L	60	800	1000	60 - 140	80

VOC's in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353320.002	Monocyclic Benzene	mg/kg	0.1	4.3	2.2	60 - 140	196†
	Aromatic Toluene	mg/kg	0.1	4.3	2.2	60 - 140	197†
	Ethylbenzene	mg/kg	0.1	4.2	2.2	60 - 140	193†
	m/p-xylene	mg/kg	0.2	8.2	4.4	60 - 140	186†
	o-xylene	mg/kg	0.1	4.2	2.2	60 - 140	193†

VOCs in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353453.002	Monocyclic Benzene	µg/L	0.5	29	25	60 - 140	117
	Aromatic Toluene	µg/L	0.5	28	25	60 - 140	113
	Ethylbenzene	µg/L	0.5	27	25	60 - 140	109
	m/p-xylene	µg/L	1	56	50	60 - 140	112
	o-xylene	µg/L	0.5	28	25	60 - 140	114

Volatile Petroleum Hydrocarbons in Soil

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353320.002	TRH C6-C10	mg/kg	25	70	35.2	60 - 140	198†
	TRH C6-C9	mg/kg	20	59	30.8	60 - 140	192†

Volatile Petroleum Hydrocarbons in Water

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB353453.002	TRH C6-C10	µg/L	50	420	400	60 - 140	105
	TRH C6-C9	µg/L	40	380	350	60 - 140	109

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 identifier when outside suggested criteria. Refer to the footnotes section at the end of this report for failure reasons.

Mercury (dissolved) in Water

Method: ME-(AU)-[ENV]AN311(Porth)/AN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285612.011	LB353302.004	Mercury	mg/L	0.0001	0.0018	<0.0001	0.008	92

Mercury in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353323.004	Mercury	mg/kg	0.05	0.24	0.06	0.2	87

OC Pesticides in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	Alpha BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1	-	-
		Beta BHC	mg/kg	0.1	<0.1	<0.1	-	-
		Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1	-	-
		Delta BHC	mg/kg	0.1	0.2	<0.1	0.2	83
		Heptachlor	mg/kg	0.1	0.1	<0.1	0.2	68
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	82
		Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1	-	-
		Gamma Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Chlordane	mg/kg	0.1	<0.1	<0.1	-	-
		Chlordane (alpha + gamma chlordane)	mg/kg	0.1	<0.1	<0.1	-	-
		Alpha Endosulfan	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDE	mg/kg	0.1	<0.1	<0.1	-	-
		Dieldrin	mg/kg	0.1	0.2	<0.1	0.2	100
		Endrin	mg/kg	0.1	0.2	<0.1	0.2	84
		Beta Endosulfan	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDD	mg/kg	0.1	<0.1	<0.1	-	-
		Endrin aldehyde	mg/kg	0.1	<0.1	<0.1	-	-
		Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.1	<0.1	0.2	71
		Endrin ketone	mg/kg	0.1	<0.1	<0.1	-	-
		Methoxychlor	mg/kg	0.1	<0.1	<0.1	-	-
		Mirex	mg/kg	0.1	<0.1	<0.1	-	-
		Total OC Pesticides	mg/kg	0.1	1.0	<0.1	-	-
		Total OC VIC EPA IWRG621	mg/kg	0.1	1.0	<0.1	-	-
		Total Other OCP VIC EPA IWRG621	mg/kg	0.1	0.5	<0.1	-	-
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.43	0.48	-	87

OP Pesticides in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2	-	-
		Bromophos Ethyl	mg/kg	0.2	<0.2	<0.2	-	-
		Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	1.7	<0.2	2	87
		Diazinon (Dimpylate)	mg/kg	0.5	2.1	<0.5	2	104
		Dichlorvos	mg/kg	0.5	1.7	<0.5	2	85
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	1.5	<0.2	2	77
		Fenitrothion	mg/kg	0.2	<0.2	<0.2	-	-
		Malathion	mg/kg	0.2	<0.2	<0.2	-	-
		Methidathion	mg/kg	0.5	<0.5	<0.5	-	-
		Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	<0.2	-	-
		Total OP Pesticides*	mg/kg	1.7	7.1	<1.7	-	-
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	90
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	95
	Surrogates							

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	Naphthalene	mg/kg	0.1	4.1	<0.1	4	104
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-

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 identifier 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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	Acenaphthylene	mg/kg	0.1	3.9	<0.1	4	96
		Acenaphthene	mg/kg	0.1	4.0	<0.1	4	100
		Fluorene	mg/kg	0.1	<0.1	<0.1	-	-
		Phenanthrene	mg/kg	0.1	4.5	<0.1	4	110
		Anthracene	mg/kg	0.1	4.4	<0.1	4	110
		Fluoranthene	mg/kg	0.1	5.0	0.1	4	122
		Pyrene	mg/kg	0.1	5.0	0.1	4	121
		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	<0.1	-	-
		Benzo(k)fluoranthene	mg/kg	0.1	<0.1	<0.1	-	-
		Benzo(a)pyrene	mg/kg	0.1	4.4	<0.1	4	107
		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	4.4	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	4.4	<0.2	-	-
		Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	4.5	<0.3	-	-
		Total PAH (18)	mg/kg	0.8	35	<0.8	-	-
		Surrogates						
		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	-	89
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	-	90
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	95

PCBs in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	Arochlor 1016	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1221	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1232	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1242	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1248	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1254	mg/kg	0.1	<0.1	<0.1	-	-
		Arochlor 1260	mg/kg	0.1	0.4	<0.1	0.4	96
		Total PCBs	mg/kg	0.1	0.4	<0.1	-	-
		Surrogates						
		TCMX (Surrogate)	mg/kg	-	0.43	0.48	-	87

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%
SE285729.001	LB353322.004	Arsenic, As	mg/kg	1	52	5	50	95
		Cadmium, Cd	mg/kg	0.3	48	<0.3	50	95
		Chromium, Cr	mg/kg	0.5	58	14	50	89
		Copper, Cu	mg/kg	0.5	66	19	50	93
		Nickel, Ni	mg/kg	0.5	52	5.0	50	94
		Lead, Pb	mg/kg	1	420	340	50	152 ⑤
		Zinc, Zn	mg/kg	2	100	56	50	91

Trace Metals (Dissolved) in Water by ICPMS

Method: ME-(AU)-[ENV]AN318

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285619.001	LB353441.004	Arsenic	µg/L	1	23	<1	20	114
		Cadmium	µg/L	0.1	23	<0.1	20	113
		Chromium	µg/L	1	23	<1	20	113
		Copper	µg/L	1	24	1	20	112
		Lead	µg/L	1	22	<1	20	115
		Nickel	µg/L	1	23	1	20	110
		Zinc	µg/L	5	60	38	20	111

TRH (Total Recoverable Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353293.004	TRH C10-C14	mg/kg	20	240	<20	200	117
		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	240	<110	-	-
		TRH >C10-C40 Total (F bands)	mg/kg	210	240	<210	-	-

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 identifier 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%
SE285729.001	LB353293.004	TRH F	TRH >C10-C16	mg/kg	25	240	<25	200	117
		Bands	TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	240	<25	-	-
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	-	-
			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%	
SE285729.001	LB353320.005	Monocyclic	Benzene	mg/kg	0.1	4.5	<0.1	2.2	203 ↑	
			Aromatic	Toluene	mg/kg	0.1	4.7	<0.1	2.2	211 ↑
			Ethylbenzene	mg/kg	0.1	4.7	<0.1	2.2	211 ↑	
			m/p-xylene	mg/kg	0.2	9.1	<0.2	4.4	205 ↑	
			o-xylene	mg/kg	0.1	4.7	<0.1	2.2	212 ↑	
			Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)		mg/kg	-	9.0	8.3	-	90
			d8-toluene (Surrogate)		mg/kg	-	9.8	9.3	-	98
			Bromofluorobenzene (Surrogate)		mg/kg	-	9.1	9.6	-	91
		Totals	Total BTEX*		mg/kg	0.6	28	<0.6	-	-
Total Xylenes*			mg/kg	0.3	14	<0.3	-	-		

VOCs in Water

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

QC Sample	Sample Number		Parameter	Units	LOR	Original	Spike	Recovery%
SE285789.007	LB353453.027	Monocyclic	Benzene	µg/L	0.5	<0.5	25	122
		Aromatic	Toluene	µg/L	0.5	<0.5	25	122
			Ethylbenzene	µg/L	0.5	<0.5	25	115
			m/p-xylene	µg/L	1	<1	50	119
			o-xylene	µg/L	0.5	<0.5	25	118
		Polycyclic	Naphthalene (VOC)*	µg/L	0.5	<0.5	-	-
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.1	-	99
			d8-toluene (Surrogate)	µg/L	-	8.6	-	106
			Bromofluorobenzene (Surrogate)	µg/L	-	9.1	-	94
		Totals	Total BTEX	µg/L	3	<3	-	-

Volatile Petroleum Hydrocarbons in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE285729.001	LB353320.005	TRH C6-C10	mg/kg	25	78	<25	35.2	218 ↑
		TRH C6-C9	mg/kg	20	66	<20	30.8	212 ↑
		Surrogates						
		d4-1,2-dichloroethane (Surrogate)	mg/kg	-	9.0	8.3	-	90
		d8-toluene (Surrogate)	mg/kg	-	9.8	9.3	-	98
		Bromofluorobenzene (Surrogate)	mg/kg	-	9.1	9.6	-	91
		VPH F						
		Benzene (F0)	mg/kg	0.1	4.5	<0.1	-	-
		Bands						
		TRH C6-C10 minus BTEX (F1)	mg/kg	25	50	<25	-	-

Volatile Petroleum Hydrocarbons in Water

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

QC Sample	Sample Number	Parameter	Units	LOR	Original	Spike	Recovery%
SE285789.007	LB353453.027	TRH C6-C10	µg/L	50	<50	400	99
		TRH C6-C9	µg/L	40	<40	350	105
		Surrogates					
		d4-1,2-dichloroethane (Surrogate)	µg/L	-	8.1	-	99
		d8-toluene (Surrogate)	µg/L	-	8.6	-	106
		Bromofluorobenzene (Surrogate)	µg/L	-	9.1	-	94
		VPH F					
		Benzene (F0)	µg/L	0.5	<0.5	-	-
		Bands					
		TRH C6-C10 minus BTEX (F1)	µg/L	50	<50	-	-



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

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: $MAD = 100 \times SDL / Mean + LR$

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 identifier when outside suggested criteria. Refer to the footnotes section at the

QC Sample	Sample Number	Parameter	Units	LOR
-----------	---------------	-----------	-------	-----

id samples expressed on a dry weight basis.

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: https://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.
- *** Indicates that both * and ** apply.
- 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 relevant report comments for further information.

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CLIENT DETAILS

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Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

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Facsimile (Not specified)
Email admin@neoconsulting.com.au

Project **M20064**
Order Number **M20064**
Samples 6

LABORATORY DETAILS

Manager Shane McDermott
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 **SE285729 R0**
Date Received 04 Jul 2025
Date Reported 11 Jul 2025

COMMENTS

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

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

A portion of the sample supplied has been sub-sampled for asbestos analysis in soil according to SGS In-house procedures. We therefore cannot guarantee that the sub-sample is representative of the entire sample supplied. SGS Industries and Environment recommends supplying approximately 50-100g of sample in a separate container.

Asbestos analysed by Approved Identifier Cameron Smith.

SIGNATORIES



Ravee SIVASUBRAMANIAM
Hygiene Team Leader

RESULTS

Fibre Identification in soil

Method AN602

Laboratory Reference	Client Reference	Matrix	Sample Description	Date Sampled	Date Analysed	Fibre Identification	Est.%w/w*
SE285729.001	BH15.1	Soil	85g Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE285729.003	BH16	Soil	96g Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE285729.004	BH17	Soil	115g Clay, Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE285729.005	BH18	Soil	130g Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE285729.006	BH19	Soil	85g Clay, Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01
SE285729.007	BH20.1	Soil	96g Clay, Sand, Soil, Rocks	04 Jul 2025	10 Jul 2025	No Asbestos Found at RL of 0.1g/kg	<0.01

METHOD

METHODOLOGY SUMMARY

AN602/AS4964	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/AS4964	Fibres/material that cannot be unequivocally 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	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/reporting limit (RL) 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/AS4964	The sample can be reported "no asbestos found at the reporting limit (RL) 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.

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.
			***	-	Indicates that both * and ** apply.

(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.

Unless it is reported that sampling has been performed by SGS, the samples have been analysed as received.

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 and MU criteria are subject to internal review according to the SGS QAQC plan and may be provided on request or alternatively can be found here: www.sgs.com.au/en-gb/environment-health-and-safety.

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Lab ID Number: (please quote on correspondence)

CHAIN OF CUSTODY & ANALYSIS REQUEST

Page 1 of 2

Company Name:	Neo Consulting Pty Ltd	Project Name/No:	M20064	
	186 Riverstone Parade	Purchase Order No:	QUOTE NUMER: 1655473	
Address:	Riverstone NSW 2765	Results Required Date:	Next Day/3 days/Standard	
		Telephone:	0416680375	Fax:
Contact Name:	Nick Caltabiano	Email Results and invoices to :	nick@neoconsulting, admin@neoconsulting, sarah@neoconsulting,	
Quotation No:			ehsan@neoconsulting Isabella@neoconsulting	

Matrix (Tick as appropriate)			OF CONTAINERS	ANALYSIS REQUESTED										Additional Report Formats	
Sample	Water Sample	Soil Sample		7	0	pestos ID	X								

SG S ID	Client Sample ID	Sampling Date/ Time
1	BH15.1	04/07/2025
2	BH15.2	04/07/2025
3	BH16	04/07/2025
4	BH17	04/07/2025
5	BH18	04/07/2025
6	BH19	04/07/2025
7	BH20.1	04/07/2025
8	BH20.2	04/07/2025
9	D1	04/07/2025
10	TS	04/07/2025
11	TB	04/07/2025
12	MW1	04/07/2025

Matrix (Tick as appropriate)			NO. OF CONTAINERS	ANALYSIS REQUESTED									
Soil Sample	Water Sample	Other _____		CL17	CL10	Asbestos ID	BTEX						
X				X		X							
X					X								
X				X		X							
X				X		X							
X				X		X							
X				X		X							
X				X		X							
X					X								
X					X								
X							X						
X	X		4		X		X						

Additional Report Formats	
☐	NEPM
☐	CSV
☐	ESDAT
☐	DQO
☐	GO, Guidelines -----
☐	Others _____

Notes/Guidelines/LOR/ Special instructions

SGS EHS Sydney COC
SE285729



Relinquished By: Ehsan Zare	04/07/2025	Received By: 	Date/Time: 04/07/25 @ 4.40
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: Yes / No	Temperature: 12.2 °C	Sample Security Sealed: Yes / No	Hazards: e.g. may contain Asbestos
Comments / Subcontracting details:			



Lab ID Number: *(please quote on correspondence)*

Page 2 of 2

Company Name:	Neo Consulting Pty Ltd	Project Name/No:	M20064	
	186 Riverstone Parade	Purchase Order No:	QUOTE NUMBER: 1655473	
Address:	Riverstone NSW 2765	Results Required Date:	Next Day/3 days/Standard	
		Telephone:	0416680375	Fax:
Contact Name:	Nick Caltabiano	Email Results and invoices to :	nick@neoconsulting, admin@neoconsulting, sarah@neoconsulting,	
Quotation No:			ehsan@neoconsulting Isabella@neoconsulting	

[illegible]

Relinquished By: Ehsan Zare	Date/Time: 04/07/2025	Received By: 	Date/Time: 04/07 @ 4-40
Relinquished By:	Date/Time:	Received By:	Date/Time:
Samples Intact: Yes / No	Temperature: 12.2 °C	Sample Security Sealed: Yes / No	Hazards: e.g. may contain Asbestos
Comments / Subcontracting details:			



SAMPLE RECEIPT ADVICE

SE285729

CLIENT DETAILS

Contact Admin
Client NEO CONSULTING PTY LTD
Address PO BOX 279
RIVERSTONE NSW 2765

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Project **M20064**
Order Number **M20064**
Samples 14

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Alexandria NSW 2015

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Email au.environmental.sydney@sgs.com

Samples Received Fri 4/7/2025
Report Due Fri 11/7/2025
SGS Reference **SE285729**

SUBMISSION DETAILS

This is to confirm that 14 samples were received on Friday 4/7/2025. Results are expected to be ready by COB Friday 11/7/2025. Please quote SGS reference SE285729 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	11 Soil, 3 Water	Type of documentation received	COC
Date documentation received	4/7/2025	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	12.2°C
Sample container provider	SGS	Turnaround time requested	Standard
Samples received in correct containers	Yes	Sufficient sample for analysis	Yes
Sample cooling method	Ice Bricks	Samples clearly labelled	Yes
Complete documentation received	Yes		

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

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SAMPLE RECEIPT ADVICE

SE285729

CLIENT DETAILS

Client NEO CONSULTING PTY LTD

Project M20064

SUMMARY OF ANALYSIS

No.	Sample ID	OC Pesticides in Soil	OP 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	BH15.1	27	14	26	9	7	10	11	7
002	BH15.2	-	-	26	-	7	10	11	7
003	BH16	27	14	26	9	7	10	11	7
004	BH17	27	14	26	9	7	10	11	7
005	BH18	27	14	26	9	7	10	11	7
006	BH19	27	14	26	9	7	10	11	7
007	BH20.1	27	14	26	9	7	10	11	7
008	BH20.2	-	-	26	-	7	10	11	7
009	D1	-	-	26	-	7	10	11	7
010	TS	-	-	-	-	-	-	11	-
011	TB	-	-	-	-	-	-	11	-

CONTINUED OVERLEAF

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE285729

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **M20064**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Mercury in Soil	Moisture Content	VOCs in Water
001	BH15.1	3	1	1	-
002	BH15.2	-	1	1	-
003	BH16	3	1	1	-
004	BH17	3	1	1	-
005	BH18	3	1	1	-
006	BH19	3	1	1	-
007	BH20.1	3	1	1	-
008	BH20.2	-	1	1	-
009	D1	-	1	1	-
011	TB	-	-	1	-
012	MW1	-	-	-	11
013	MW2	-	-	-	11
014	MW3	-	-	-	11

CONTINUED OVERLEAF

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

The numbers shown in the table indicate the number of results requested in each package.

Please indicate as soon as possible should your request differ from these details .

Testing as per this table shall commence immediately unless the client intervenes with a correction .



SAMPLE RECEIPT ADVICE

SE285729

CLIENT DETAILS

Client NEO CONSULTING PTY LTD

Project M20064

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	PAH (Polynuclear Aromatic Hydrocarbons) in Water	Trace Metals (Dissolved) in Water by ICPMS	TRH (Total Recoverable Hydrocarbons) in Water	Volatile Petroleum Hydrocarbons in Water
012	MW1	1	22	7	9	7
013	MW2	1	22	7	9	7
014	MW3	1	22	7	9	7

The above table represents SGS' interpretation of the client-supplied Chain Of Custody document.
The numbers shown in the table indicate the number of results requested in each package.
Please indicate as soon as possible should your request differ from these details .
Testing as per this table shall commence immediately unless the client intervenes with a correction .

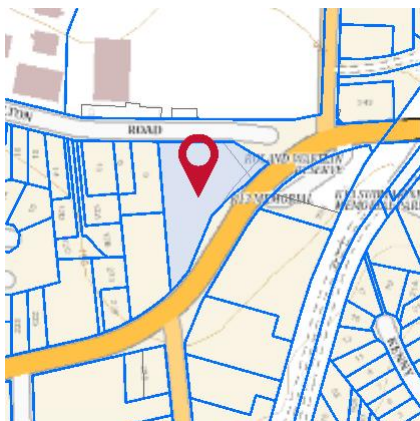
APPENDIX C

Property Report, Relevant Site Data and Plans



Property Report

241-245 PENNANT HILLS ROAD CARLINGFORD
2118



Property Details

Address: 241-245 PENNANT HILLS ROAD
CARLINGFORD 2118

Lot/Section 1/-/DP805059 2/-/DP805059 5/-/DP805059
/Plan No: 6/-/DP805059

Council: CITY OF PARRAMATTA COUNCIL

Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Parramatta Local Environmental Plan 2023 (pub. 3-3-2023)
Land Zoning	E1 - Local Centre: (pub. 3-3-2023) SP2 - Infrastructure: (pub. 3-3-2023)
Height Of Building	14 m 49 m
Floor Space Ratio	2.1:1
Minimum Lot Size	600 m ²
Heritage	NA
Land Reservation Acquisition	Classified Road
Foreshore Building Line	NA
Key Sites	241-245 Pennant Hills Road, Carlingford

Detailed planning information

State Environmental Planning Policies which apply to this property

State Environmental Planning Policies can specify planning controls for certain areas and/or types of development. They can also identify the development assessment system that applies and the type of environmental assessment that is required.

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)



Property Report

241-245 PENNANT HILLS ROAD CARLINGFORD
2118

- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Excluded (pub. 21-10-2022)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Sydney Harbour Catchment (pub. 21-10-2022)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing) 2021: Land Application (pub. 26-11-2021)
- State Environmental Planning Policy (Industry and Employment) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Planning Systems) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Primary Production) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resilience and Hazards) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resources and Energy) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Sustainable Buildings) 2022: Land Application (pub. 29-8-2022)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Land Application (pub. 2-12-2021)

Other matters affecting the property

Information held in the Planning Database about other matters affecting the property appears below. The property may also be affected by additional planning controls not outlined in this report. Please speak to your council for more information

1.5 m Buffer around Classified Roads	Classified Road Adjacent
Greater Sydney Tree Canopy Cover 2019 Percentage	0.00
	17.74
	8.47
Greater Sydney Tree Canopy Cover 2022 Percentage	19.96
	25.82
	30.27
Housing and Productivity Contribution	Greater Sydney - Base HPC
Local Aboriginal Land Council	METROPOLITAN
Regional Plan Boundary	Greater Sydney

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)

PLANNING CERTIFICATE

CERTIFICATE UNDER SECTION 10.7

Environmental Planning and Assessment Act, 1979 as amended

Certificate No: 2025/4459
Fee: \$173.66
Issue Date: 24 June 2025
Receipt No: 8022161
Applicant Ref: 241-245 PENNANT HI:244270

DESCRIPTION OF LAND

Address: 241 Pennant Hills Road
CARLINGFORD NSW 2118
Lot Details: Lot 1 DP 805059, Lot 2 DP 805059, Lot 5 DP 805059, Lot 6 DP 805059

SECTION A

The following Environmental Planning Instrument to which this certificate relates applies to the land:

Parramatta Local Environmental Plan 2023

For the purpose of **Section 10.7(2)** it is advised that as the date of this certificate the abovementioned land is affected by the matters referred to as follows:

The land is zoned: E1 Local Centre PLEP2023

Zone E1 Local Centre (Parramatta Local Environmental Plan 2023)

Issued pursuant to Section 10.7 of the Environmental Planning and Assessment Act, 1979. NOTE: This table is an excerpt from Parramatta Local Environmental Plan 2023 and must be read in conjunction with and subject to the other provisions of that instrument, and in force at that date.

Zone E1 Local Centre

1 Objectives of zone

- To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area.
- To encourage investment in local commercial development that generates employment opportunities and economic growth.
- To enable residential development that contributes to a vibrant and active local centre and is consistent with the Council's strategic planning for residential development in the area.
- To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.
- To ensure the scale and type of development does not adversely affect the amenity of the surrounding neighbourhood.

2 Permitted without consent

Nil

3 Permitted with consent

Amusement centres; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Car parks; Centre-based child care facilities; Commercial premises; Community facilities; Educational establishments; Entertainment facilities; Function centres; Health consulting rooms; Home businesses; Home industries; Home occupations; Hostels; Hotel or motel accommodation; Information and education facilities; Local distribution premises; Medical centres; Oyster aquaculture; Places of public worship; Public administration buildings; Recreation areas; Recreation facilities (indoor); Residential flat buildings; Respite day care centres; Roads; Self-storage units; Seniors housing; Service stations; Serviced apartments; Shop top housing; Tank-based aquaculture; Veterinary hospitals; Water recycling facilities

4 Prohibited

Any development not specified in item 2 or 3

The land is zoned: SP2 Infrastructure PLEP2023

Zone SP2 Infrastructure (Parramatta Local Environmental Plan 2023)

Issued pursuant to Section 10.7 of the Environmental Planning and Assessment Act, 1979. NOTE: This table is an excerpt from Parramatta Local Environmental Plan 2023 and must be read in conjunction with and subject to the other provisions of that instrument, and in force at that date.

Zone SP2 Infrastructure

1 Objectives of zone

- To provide for infrastructure and related uses.
- To prevent development that is not compatible with or that may detract from the provision of infrastructure.

2 Permitted without consent

Nil

3 Permitted with consent

Aquaculture; Building identification signs; Business identification signs; Environmental protection works; Flood mitigation works; Recreation areas; Roads; The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose

4 Prohibited

Any development not specified in item 2 or 3

SECTION B

State Policies and Regional Environmental Plans

The land is also affected by the following State Environmental Planning Policies (SEPP) and Regional Environmental Plans (SREP):

State Environmental Planning Policy (SEPP) (Biodiversity and Conservation) 2021
State Environmental Planning Policy (SEPP) (Planning Systems) 2021
State Environmental Planning Policy (SEPP) (Resilience and Hazards) 2021
State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021
State Environmental Planning Policy (SEPP) (Precincts—Central River City) 2021
State Environmental Planning Policy (SEPP) (Housing) 2021
State Environmental Planning Policy (SEPP) (Resources and Energy) 2021
State Environmental Planning Policy (SEPP) (Primary Production) 2021
State Environmental Planning Policy (SEPP) (Sustainable Buildings) 2022
State Environmental Planning Policy (SEPP) No.65 – Design Quality of Residential Flat Development.
State Environmental Planning Policy (SEPP) (Exempt and Complying Development Codes) 2008

N.B. All enquiries as to the application of Draft State Environmental Planning Policies should be directed to The NSW Department of Planning, Housing and Infrastructure.

Draft Local Environmental Plan

The land is not affected by a Draft Local Environmental Plan which is or has been subject to community consultation or public exhibition under the Act, that will apply to the carrying out of development on the land.

Development Control Plan

The land is affected by the Parramatta Development Control Plan (DCP) 2023

Development Contribution Plan

The subject land is within the Greater Sydney region to which the Environmental Planning and Assessment (Housing and Productivity Contribution) Order 2023 applies.

The City of Parramatta (Outside CBD) Development Contributions Plan 2021 Amendment 1 applies to the land.

Heritage Item/Heritage Conservation Area

An item of environmental heritage is not situated on the land.

The land is not located in a heritage conservation area.

Road Widening

The land IS AFFECTED by road widening or road realignment under:

- (1) Roads Act, 1993.
- (2) Any Environmental Planning Instrument.
- (3) Any Resolution of Council.

Land Reservation Acquisition

The land or part of the land is identified as being reserved for Classified Road purposes on the Land Reservation Acquisition map in Parramatta Local Environmental Plan 2023.

Site Compatibility Certificate (Affordable Rental Housing)

At the date of issue of this certificate Council is not aware of any

- a. Site compatibility certificate (affordable rental housing),
in respect to the land.

Contamination

Matters contained in Clause 59(2) as amended in the Contaminated Land Management Act 1997 – as listed:

Clause 59(2)(a) - is the land to which the certificate relates is significantly contaminated land?

NO

Clause 59(2)(b) - is the land to which the certificate relates is subject to a management order?

NO

Clause 59(2)(c) - is the land to which the certificate relates is the subject of an approved voluntary management proposal?

NO

Clause 59(2)(d) - is the land to which the certificate relates is subject to an ongoing maintenance order?

NO

Clause 59(2)(e) - is the land to which the certificate relates is the subject of a site audit statement?

NO

Tree Preservation

The land is subject to Section 5.3.4 Trees and Vegetation Preservation in the Parramatta Development Control Plan (DCP) 2023.

Council has not been notified of an order under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land.

Coastal Protection

Has the owner (or any previous owner) of the land been consented in writing to the land being subject to annual charges under section 496B of the Local Government Act 1993 for coastal protection services that relate to existing coastal protection works (within the meaning of section 553B of that Act)?

NO

Council Policy

Council has not adopted a policy to restrict the development of the land by reason of the likelihood of projected sea level rise (coastal protection), tidal inundation, subsidence or any other risk.

Council has adopted a policy covering the entire City of Parramatta to restrict development of any land by reason of the likelihood of flooding.

Council has adopted by resolution a policy on contaminated land that applies to all land within the City of Parramatta. The Policy will restrict the development of the land if the circumstances set out in the policy prevail. A copy of the policy is available on Councils website at www.cityofparramatta.nsw.gov.au or from the Customer Service Centre

NSW Rural Fire Service Guidelines entitled 'Planning for Bushfire Protection 2019' applies to land within the City of Parramatta. Development subject to bushfire risk will be required to address the requirements in these guidelines and can be downloaded off the RFS web site www.rfs.nsw.gov.au

Please note: this is a statement of Council policy and not a statement on whether or not the property is affected by bushfire. That question is answered in the Bushfire Land section of this certificate.

Mine Subsidence

The land is not affected by the Coal Mine Subsidence Compensation Act 2017 proclaiming land to be a Mine Subsidence District.

Bushfire Land

The land is not bushfire prone land.

Threatened Species

The Environment Agency Head with responsibility for the Biodiversity Conservation Act 2016 has not advised Council that the land includes or comprises an area of outstanding biodiversity value.

Biodiversity certified land

The land is not biodiversity certified land under Part 8 of the Biodiversity Conservation Act 2016.

Note. *Biodiversity certified land includes land certified under Part 7AA of the Threatened Species Conservation Act 1995 that is taken to be certified under Part 8 of the Biodiversity Conservation Act 2016.*

Biodiversity stewardship sites

The Chief Executive of the Office of Environment and Heritage has not notified the Council if the land is a biodiversity stewardship site under a biodiversity stewardship agreement under Part 5 of the Biodiversity Conservation Act 2016.

Note: Biodiversity stewardship agreements include biobanking agreements under Part 7A of the Threatened Species Conservation Act 1995 that are taken to be biodiversity stewardship agreements under Part 5 of the Biodiversity Conservation Act 2016.

Property vegetation plans

Council has not been notified of the existence of the property vegetation plan approved under Part 4 of the Native Vegetation Act 2003 on the land.

Paper Subdivision information

The land is not subject to any development plan adopted by a relevant authority or that is proposed to be subject to a consent ballot. A subdivision order does not apply to the land.

Note: Words and expressions used in this section have the same meaning as in the Environmental Planning and Assessment Regulation 2021, Part 10 and the Environmental Planning and Assessment Act 1979, Schedule 7.

Western Sydney Aerotropolis

Under State Environmental Planning Policy (Precincts—Western Parkland City) 2021, Chapter 4 the land:

- (a) is not in an ANEF or ANEC contour of 20 or greater, as referred to in that Chapter, section 4.17,
- (b) is not shown on the Lighting Intensity and Wind Shear Map,
- (c) is not shown on the Obstacle Limitation Surface Map,
- (d) is not in the “public safety area” on the Public Safety Area Map,
- (e) is not in the “3 kilometre wildlife buffer zone” or the “13 kilometre wildlife buffer zone” on the Wildlife Buffer Zone Map.

Loose-Fill Asbestos Register

Council has not been notified by NSW Fair Trading of the property being listed on the loose-fill asbestos insulation register maintained by the Secretary of NSW Fair Trading.

Affected Building Notices and Building Product Rectification Orders

Council is not aware of whether there is any affected building notice, building product rectification order or notice of intention to make a building product rectification order that is in force in respect of the land.

Note: *affected building notice* has the same meaning as in the *Building Products (Safety) Act 2017*. *building product rectification order* has the same meaning as in the *Building Products (Safety) Act 2017*.

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Exempt Development Codes

Clause 1.12 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The land **is not** land where the exempt development codes are varied under Clause 1.12 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Clauses 1.16(1)(b1)–(d) or Clause 1.16A of State Environmental Planning Policy (Exempt and Complying Development Codes)

The following information only addresses whether or not the land is land on which exempt development may be carried out under each of the codes for exempt development because of the provisions of **Clauses 1.16(1)(b1)–(d) or Clause 1.16A** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. It is not a statement that exempt development is permissible on the land.

Other land exemptions within State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may also apply. Furthermore, other provisions within the relevant Local Environmental Plan or a State Environmental Planning Policy which restrict exempt development on the land may also apply.

It is your responsibility to ensure that you comply with the relevant exempt development provisions for the land.

Exempt Development pursuant to the exempt development codes **may** be carried out on the land under **Clauses 1.16(1)(b1)–(d) or Clause 1.16A** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Complying Development Codes

Note: This does not constitute a Complying Development Certificate under section 4.27 of the Environmental Planning and Assessment Act 1979

Clause 1.12 State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The land is not land where the complying development codes are varied under Clause 1.12 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

Clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1)(c3) and 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

The following information only addresses whether or not the land is land on which complying development may be carried out under each of the codes for complying development because of the provisions of **Clauses 1.17A (1) (c) to (e), (2), (3) and (4), 1.18 (1)(c3) and 1.19** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. It is not a statement that complying development is permissible on the land.

Other land exemptions within State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 may also apply. Furthermore, other provisions within the relevant Local Environmental Plan or a State Environmental Planning Policy which restrict complying development on the land may also apply.

It is your responsibility to ensure that you comply with the relevant complying development provisions for the land. Failure to comply with these provisions may mean that a Complying Development Certificate is invalid.

Housing Code; Low Rise Housing Diversity Code; Rural Housing Code

Complying Development pursuant to the Housing Code, Low Rise Housing Diversity Code and Rural Housing Code **may not** be carried out on the land or part of the land. The land is affected by specific land exemptions under **Clause 1.17A or Clause 1.18 (1) (c3) or Clause 1.19** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. The land exemptions are:

- Part of the land is reserved for a public purpose in an environmental planning instrument,
(Land Exemption Clause 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008)

Commercial and Industrial (New Buildings and Additions) Code

Complying Development pursuant to Commercial and Industrial (New Buildings and Additions) Code **may not** be carried out on the land or part of the land. The land is affected by specific land exemptions under **Clause 1.17A or Clause 1.18 (1) (c3) or Clause 1.19** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. The land exemptions are:

- Part of the land is reserved for a public purpose in an environmental planning instrument,
(Land Exemption Clause 1.19 of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008)

Housing Alterations Code; General Development Code; General Commercial and Industrial (Alterations) Code; Container Recycling Facilities Code; Subdivision Code; Demolition Code; Fire Safety Code

Complying Development pursuant to the Housing Alterations Code, General Development Code, General Commercial and Industrial (Alterations) Code, Container Recycling Facilities Code, Subdivision Code, Demolition Code and Fire Safety Code **may** be carried out on the land under **Clause 1.17A (1) (c) to (e), (2), (3) and (4) and Clause 1.18 (1)(c3) and Clause 1.19** of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

SPECIAL NOTES

Applicants for Sections 10.7 Certificates are advised that Council does not hold sufficient information to fully detail the effect of any encumbrances on the title of the subject land. The information available to Council is provided on the basis that neither Council nor its servants hold out advice or warrant to you in any way its accuracy, nor shall Council or its servants, be liable for any negligence in the preparation of that information. Further information should be sought from relevant Statutory Departments.

SECTION C**The following additional information is issued under Section 10.7(5)**

Pursuant to S10.7(5) the Council supplies information as set out below on the basis that the Council takes no responsibility for the accuracy of the information. The information if material should be independently checked by the applicant.

Draft Parramatta River Flood Study (Draft Flood Study)

Between 18 September 2023 and 30 October 2023, Council is exhibiting the Draft Parramatta River Flood Study.

Further information about the Draft Parramatta River Flood Study can be found at <https://participate.cityofparramatta.nsw.gov.au/flood-study> or by contacting Council.

241–245 Pennant Hills Road, Carlingford

This land is identified as “241–245 Pennant Hills Road, Carlingford” on the Key Sites Map of the Parramatta Local Environmental Plan 2023.

Flood Information

The land is considered by Council TO BE ABOVE the 1 in 100 year mainstream flood level.

This information is based on data available to the Council. It is provided on the basis that neither Council nor its servants hold out advice or warrant to you in any way its accuracy, nor shall the Council or its servants, be liable for any negligence in the preparation of that information.

Note: Advisory Information Regarding Proximity to a Commercial Centre

The land is within proximity to a major, strategic or local commercial centre. Council is looking to encourage greater activation and investment in these centres by developing the night time economy across the City of Parramatta. Future residents should be aware that the nature and scale of facilities, business activity and events held in these centres may affect the use and enjoyment of the land as a result of operating hours, odour, noise, lighting, traffic and measures associated with event management.

This is considered part of living in/near a commercial centre.

Explanation of Intended Effect – Cultural State Environmental Planning Policy

Explanation of Intended Effect (EIE) – Cultural State Environmental Planning Policy (November 2024) may be applicable. The EIE proposes changes to the planning system to support more creative, hospitality and cultural uses contributing to the 24-hour economy, and also proposes changes to food trucks in residential zones; and changes to allow bicycle rails and bicycle lockers as exempt development.

Please see [Explanation of Intended Effect: Cultural State Environmental Planning Policy \(SEPP\) | Planning Portal - Department of Planning and Environment](#) for more information.

Note: Advisory Information regarding Combustible Cladding

External combustible cladding on multi-storey buildings has been identified in local government areas including the City of Parramatta. Combustible cladding is a material that is capable of readily burning.

You should make your own enquiries as to the type of materials that have been used to construct the building. It is recommended that the purchaser obtain a building report from an appropriately qualified person to determine if any cladding type material may pose a risk to the building's occupants. Council may issue orders to rectify a building where combustible cladding is found.

Properties that have combustible cladding on buildings are listed in the NSW Government Combustible Cladding Register. Please refer to <https://www.claddingregistration.nsw.gov.au/> or call 1300 305 695 for further information regarding the NSW Government Combustible Cladding Register.

There is potential for combustible cladding to be present on buildings that are not listed on the Register.

Note: Advisory Information regarding Loose-Fill asbestos Insulation

Research undertaken by the Loose-Fill Asbestos Insulation Taskforce has determined that there is a potential for loose-fill asbestos insulation to be found in residential dwellings constructed prior to 1980 in 28 local government areas including the City of Parramatta.

Some residential homes located in the City of Parramatta may contain loose-fill asbestos insulation, for example in the roof space. NSW Fair Trading maintains a Register of homes that are affected by loose-fill asbestos insulation.

You should make your own enquiries as to the age of the buildings on the land to which this certificate relates and, if it contains a building constructed prior to 1980, the council strongly recommends that any potential purchaser obtain advice from a licensed asbestos assessor to determine whether loose fill asbestos is present in any building on the land and, if so, the health risks (if any) this may pose for the building's occupants.

Please Contact NSW Fair Trading for further information.

This information has been provided pursuant to section 10.7(5) of the Environmental Planning and Assessment Act, 1979 as amended.

Gail Connolly
Chief Executive Officer

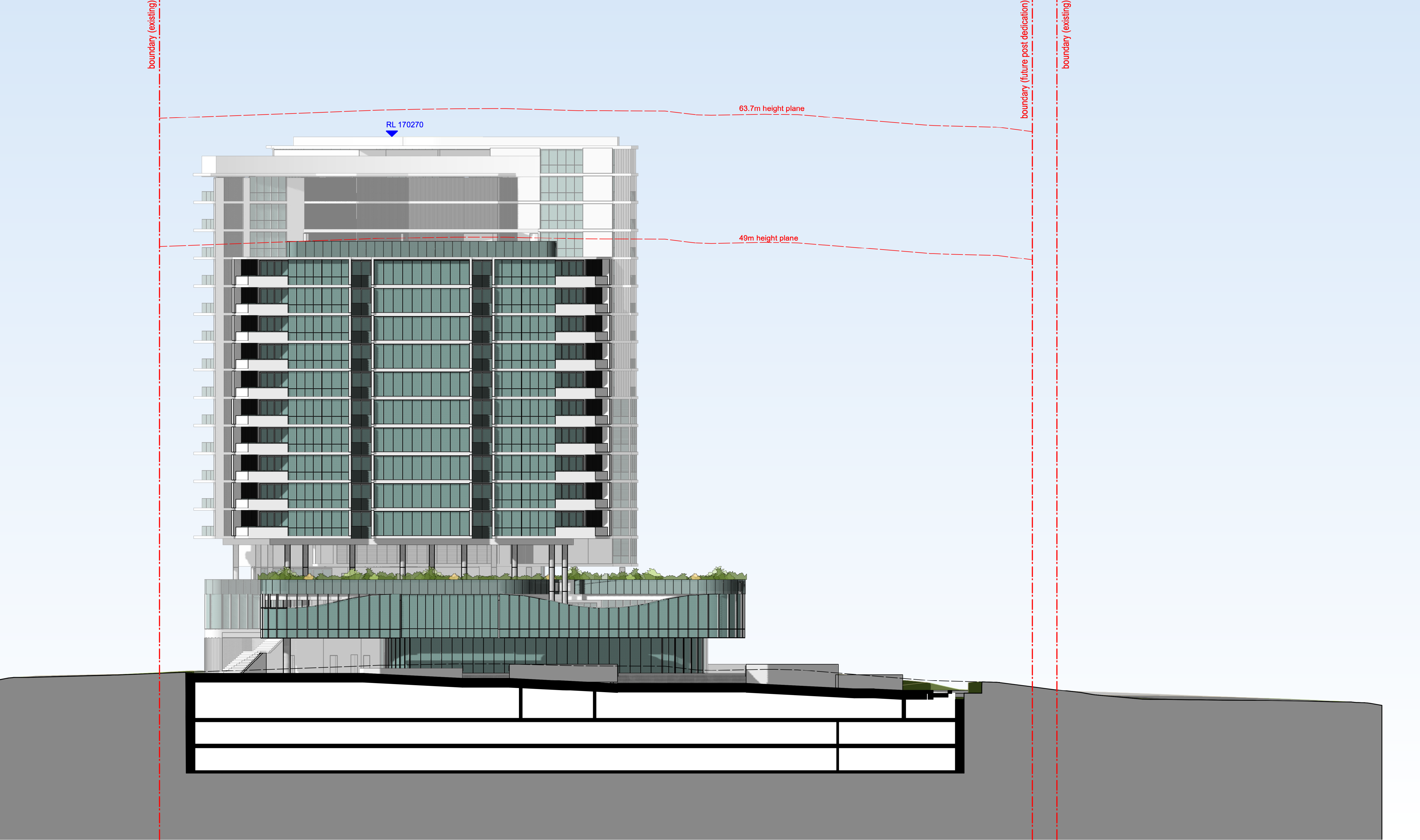
per



dated 24 June 2025



ISSUE FOR SEARS - 5/5/2025



SECTIONS 01

ISSUE FOR SEARS - 5/5/2025

APPENDIX D

Borehole Logs



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH15

UTM	: 56H	Excavator	: Shovel	Job Number	: M20064
Latitude	: -33.78327	Excavator Supplier	:	Client	: Geotechnical Consultants Australia
Longitude	: 151.04407	Logged By	: Ehsan Zare	Project	: 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation	: Not Surveyed	Reviewed By	:	Location	: 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth	: 0.6 m BGL	Date	: 03/07/2025	Loc Comment	:

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	Samples	PID
									Soil	
	0.1	Non Soil		SBSC		Sub Base Coarse Gravel				
		Fill		CL		Fill Sandy to Silty CLAY CL: low plasticity, soft, moderately compacted, dark brown, fine grained sand, inorganic, moist, brick and glass fragments, no pacm, no staining.	M	S-MC	BH15.1	<1
	0.5	Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.	M	F	BH15.2	<1
						BH15 Terminated at 0.6 m				



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH16

UTM : 56H Excavator : Shovel Job Number : M20064
Latitude : -33.78333 Excavator Supplier : Client : Geotechnical Consultants Australia
Longitude : 151.04417 Logged By : Ehsan Zare Project : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation : Not Surveyed Reviewed By : Location : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth : 0.6 m BGL Date : 03/07/2025 Loc Comment :

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	Samples	PID
									Soil	
	0.1	Non Soil		SBSC		Sub Base Coarse Gravel				
		Fill		CL		Fill Sandy to Silty CLAY CL: low plasticity, soft, moderately compacted, dark brown, fine grained sand, inorganic, moist, brick and glass fragments, no pacm, no staining.	M	S-MC	BH16	<1
	0.5	Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.	M	F		
						BH16 Terminated at 0.6 m				



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH17

UTM : 56H Excavator : Shovel Job Number : M20064
Latitude : -33.78356 Excavator Supplier : Client : Geotechnical Consultants Australia
Longitude : 151.04430 Logged By : Ehsan Zare Project : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation : Not Surveyed Reviewed By : Location : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth : 1 m BGL Date : 03/07/2025 Loc Comment :

Well Diagram	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	PID	Sample
		0.2	Non Soil		Mulch		Mulch Mulch				
			Fill		CL		Fill Sandy CLAY CL: low plasticity, soft, moderately compacted, brown, fine grained sand, organic, moist, no pacm, no staining.	M	S-MC	<1	
		0.9	Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.		F		
							BH17 Terminated at 1 m				



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH18

UTM : 56H Excavator : Shovel Job Number : M20064
Latitude : -33.78374 Excavator Supplier : Client : Geotechnical Consultants Australia
Longitude : 151.04417 Logged By : Ehsan Zare Project : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation : Not Surveyed Reviewed By : Location : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth : 1 m BGL Date : 03/07/2025 Loc Comment :

Well Diagram	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	PID	Sample
		0.2	Non Soil		Mulch		Mulch Mulch				
			Fill		CL		Fill Sandy CLAY CL: low plasticity, soft, moderately compacted, brown, fine grained sand, organic, moist, no pacm, no staining.	M	S-MC	<1	
		0.9	Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.		F		
							BH18 Terminated at 1 m				



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH19

UTM : 56H Excavator : Shovel Job Number : M20064
Latitude : -33.78434 Excavator Supplier : Client : Geotechnical Consultants Australia
Longitude : 151.04380 Logged By : Ehsan Zare Project : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation : Not Surveyed Reviewed By : Location : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth : 0.6 m BGL Date : 03/07/2025 Loc Comment :

Well Diagram	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	PID	Sample
		0.5	Fill		CL		Fill Sandy CLAY CL: low plasticity, soft, moderately compacted, dark brown, fine grained sand, trace fine sized gravel, organic, moist, no pacm, no staining.	M	S-MC	<1	
			Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.		F		
							BH19 Terminated at 0.6 m				



NEO Consulting

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

Geotechnical Log - Test Pit

BH20

UTM : 56H Excavator : Shovel Job Number : M20064
Latitude : -33.78411 Excavator Supplier : Client : Geotechnical Consultants Australia
Longitude : 151.04375 Logged By : Ehsan Zare Project : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Ground Elevation : Not Surveyed Reviewed By : Location : 241-245 Pennant Hills Rd, Carlingford NSW 2118, Australia
Total Depth : 0.6 m BGL Date : 03/07/2025 Loc Comment :

Well Diagram	Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency/Density	PID	Sample
		0.2	Fill		CL		Fill Sandy CLAY CL: low plasticity, soft, moderately compacted, dark brown, fine grained sand, trace fine sized gravel, organic, moist, no pacm, no staining.	M	S-MC	<1	
			Fill		CI				F-MC	<1	
		0.5					Fill Sandy CLAY CI: medium plasticity, firm, moderately compacted, brown, medium grained sand, with fine to medium sized gravel, inorganic, moist, brick and tile fragments, no pacm, no staining.				
			Natural		CH		Natural Silty CLAY CH: firm, high plasticity, reddish brown, inorganic, moist.		F		
							BH20 Terminated at 0.6 m				