



# TARGETED DETAILED SITE INVESTIGATION

N6527

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La Rocco Pty Ltd

61 Sydney Road,

Goulburn NSW 2580

5<sup>th</sup> May 2023

**NEO** CONSULTING

## Report Distribution

### Targeted Detailed Site Investigation





Address: 61 Sydney Road, Goulburn NSW 2580

Report No: N6527

Date: 5<sup>th</sup> May 2023

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Version	Prepared by	Reviewed by	Date issue
Draft	Ehsan Zare Environmental Consultant 	Nick Caltabiano Project Manager 	2 <sup>nd</sup> May 2023
FINAL	Ehsan Zare Environmental Consultant 	Nick Caltabiano Project Manager 	5 <sup>th</sup> May 2023

Report Revision	Details	Report No.	Date	Amended By
1	FINAL Report	N6527	05.04.2023	SH

Issued By:



**Nick Caltabiano**

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# Table of Contents

- Executive Summary ..... 5
- 1. Introduction ..... 6
  - 1.1 Background ..... 6
  - 1.2 Objectives ..... 6
  - 1.3 Regulatory Framework ..... 6
- 2. Scope of Work ..... 7
- 3. Site Details ..... 8
- 4. Site Condition ..... 8
- 5. Site History ..... 9
  - 5.1 History of Site ..... 9
  - 5.2 Section 10.7 (2) Planning Certificate ..... 10
  - 5.3 NSW EPA Contaminated Land Register ..... 10
  - 5.4 Protection of the Environment Operation Act (POEO) Public Register ..... 10
  - 5.5 SafeWork NSW Hazardous Goods ..... 10
  - 5.6 Product Spill and Loss History ..... 10
  - 5.7 PFAS Investigation Program ..... 10
  - 5.8 PFAS Investigation Program ..... 10
- 6. Environmental Setting ..... 11
  - 6.1 Geology ..... 11
  - 6.2 Soil Landscape ..... 11
  - 6.3 Hydrogeology and Groundwater ..... 11
  - 6.4 Topography ..... 11
  - 6.5 Site Drainage ..... 11
  - 6.6 Acid Sulphate Soils ..... 12
- 7. Areas of Environmental Concern ..... 13
- 8. Conceptual Site Model ..... 14
- 9. Data Gaps ..... 15
- 10. Assessment Criteria ..... 15
  - 10.1 NEPM Health Investigation Level A (HIL-A) – Residential ..... 15
  - 10.2 NEPM Health Screening Level A (HSL-A) – Residential ..... 16
  - 10.3 NEPM Ecological Investigation Level (EIL) – Urban Residential and Public Open Space ..... 16
  - 10.4 NEPM Ecological Screening Level (ESL) – Urban Residential and Public Open Space ..... 17
  - 10.5 NEPM Management Limits – Residential, Parkland and Public Open Space ..... 17
  - 10.6 NEPM Health Screening Level A (HSL-A) – Residential for Asbestos ..... 18
  - 10.7 NEPM Groundwater Assessment Criteria (HSL-A and GILs) ..... 18
- 11. Sampling and Analysis Plan ..... 19
  - 11.1 Sampling Rationale ..... 19
  - 11.2 Field Sampling Methodology ..... 19
  - 11.3 Laboratory Testing Program ..... 20
  - 11.4 Field Quality Assurance & Quality Control Procedures ..... 21

11.5 Laboratory Quality Assurance & Quality Control Procedures.....	21
12. Data Quality Objectives (DQOs) .....	21
13. Analytical Results .....	22
13.1 Soil Analytical Results.....	22
13.2 Quality Control (QC) Sampling.....	23
14. Data Quality Indicators.....	23
15. Conclusion.....	24
16. Recommendations.....	24
References.....	25
Limitations .....	27

## Appendices

Appendix A – Figures and Photographic Log

Appendix B – Analytical Results and Laboratory Reports

Appendix C – Property Report and Relevant Site Data

Appendix D – Borelogs



## Executive Summary

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NEO Consulting was appointed by La Rocco Pty Ltd (site owner) to undertake a Targeted Detailed Site Investigation (TDSI) for the site located within north-western portion of the property at No. 61 Sydney Road, Goulburn NSW 2580. The property is legally defined as Lot 5/-/DP793066, has an approximate area of 6,025m<sup>2</sup>, and is currently zoned B6 - Enterprise Corridor. The approximate area of the investigation area (the site) is 1157m<sup>2</sup>.

NEO Consulting understands that the purpose of the investigation is in preparations for a potential sale of the property and this assessment is to determine a base line assessment.

The scope of work undertaken includes:

- A site inspection to identify potential sources of contamination;
- Soil and groundwater sampling and chemical analysis;
- Historical investigations relating to the site (if any);
- Local Council records and planning certificates;
- NSW EPA Contaminated Land Register and Protection of the Environment Operation Act (POEO) Public Register;
- Dial-Before-You-Dig enquiry for an evaluation into local underground services and assets;
- Review of local geological and hydrogeological information, including registered groundwater bore database;
- Review of Acid Sulphate Soil data maps.

A site investigation was undertaken on 20<sup>th</sup> April 2023 by a NEO Consulting environmental consultant. The site was located within the north-western portion of the Governor's Hill motel. The site was previously used as a service station and an auto mechanic workshop. The service station and auto mechanic workshop had been decommissioned prior to at least 2007. However, the underground tanks and infrastructures remained onsite.

NEO Consulting obtained sixteen (16) primary soil samples (250mL laboratory prepared jars) from eight (8) boreholes with a systematic sampling pattern. 500mL bag surface soil sample was collected from each borehole for analysis of Asbestos. Moreover, a groundwater monitoring bore was installed onsite and one (1) primary sample was collected from this well.

Additionally, four (4) QA/QC samples were used to meet Data Quality Objectives (DQO) and Data Quality Indicators (DQI), one (1) intra-laboratory soil and groundwater sample were obtained from the site and one (1) trip spike and one (1) trip blank were collected from the National Association of Testing Authorities, Australia (NATA) accredited laboratory prior to the commencement of fieldwork, carried in the field for the duration of site inspection and sampling and returned to the laboratory along with the submission of the primary samples, Asbestos samples and the intra-laboratory samples.

Identified impacted soils included one location (BH5). Asbestos identified above Health Screening Level (HSL-A) in this location. Asbestos contamination is expected to be resulting from importation of uncontrolled fill across the site. All other soil analytes were below NPEM Health and Ecological assessment criteria for residential (A) sites.

Groundwater analytical results indicated, Benzene, TRH C6-C10 and >C10-C16 concentrations exceeded NPEM HSL-A. Moreover, Benzene and Xylenes concentrations exceeded NEPM GIL for Marine and Fresh water. These exceedances are expected to be resulting from historical underground storage of petroleum products.

Based on the site investigation and analytical results, NEO Consulting considers that there is potential for Asbestos and petroleum contamination to exist on the site.

NEO Consulting finds that the site can be made suitable for ongoing land use, providing that the recommendations within **Section 16** of this report are undertaken.

## 1. Introduction

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### 1.1 Background

NEO Consulting was appointed by La Rocco Pty Ltd (the client) to undertake a Targeted Detailed Site Investigation (TDSI) for the site located within north-western portion of the property at No. 61 Sydney Road, Goulburn NSW 2580. The property is legally defined as Lot 5/-/DP793066, has an approximate area of 6,025m<sup>2</sup>, and is currently zoned B6 - Enterprise Corridor. The approximate area of the investigation area (the site) is 1157m<sup>2</sup>.

A site inspection was undertaken on the 20<sup>th</sup> May 2023 by qualified environmental consultants. Reporting, photographs and sampling were conducted on this day and with reference to the relevant regulatory criteria (**2. Scope of Work**). Further information of the inspection is described in **4. Site Condition** and regarding the sampling in **11. Sampling and Analysis Plan**.

### 1.2 Objectives

The objectives of the TDSI were to provide a detailed assessment of current and/or historical potentially contaminating activities that may have impacted the site.

### 1.3 Regulatory Framework

This TDSI has been prepared in general accordance with the following regulatory framework:

#### Statutory Requirements

- National Environment Protection Council Act 1994;
- Protection of the Environment and Operation Act 1997;
- The Contaminated Land Management Act 1997;
- 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 (3<sup>rd</sup> 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; and
- Work Health and Safety Regulation, 2011.

## 2. Scope of Work

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To meet the requirements in Section 1.3 of this report, the following scope of works were included:

- Site inspections and soil and groundwater sampling for evidence of sources of potential contamination onsite and neighbouring properties;
- Review of historical investigations relating to the site (if any);
- Review of historical aerial photographs;
- Review of NSW EPA Contaminated Land Records, Protection of the Environment and Operation (POEO) Register and PFAS Investigation program map;
- Review of local geological and hydrogeological information, including an evaluation of the WaterNSW registered groundwater bore database;
- Review of Acid Sulphate Soils (ASS) data maps;
- Evaluate the analytical results from the TDSI sampling events;
- Establish whether data gaps may exist within the investigation; and
- Development of a Conceptual Site Model (CSM) to identify the connections between potential sources of contamination, exposure pathways, and human/ecological receptors.

## 3. Site Details

**Table 1.** Site Details

<b>Address</b>	No. 61 Sydney Road, Goulburn NSW 2580
<b>Deposited plan</b>	Lot 5/-/DP793066
<b>Zoning</b>	B6 - Enterprise Corridor
<b>Locality map</b>	Figure 1, Appendix A
<b>Site Boundary</b>	Figure 2, Appendix A
<b>Area</b>	1157m <sup>2</sup>

**Table 2.** Surrounding land-use adjacent to the site

<b>Direction from site</b>	<b>Land-use</b>
North	Sydney Road
East	Heritage Motor Inn Motel
South	Vacant Land
West	Service station

## 4. Site Condition

A site inspection was undertaken on the 20<sup>th</sup> April 2023 by NEO Consulting. During the site inspection, the following observations were noted (photographs in **Appendix A**):

- This site was located within the north-western portion of the property at no. 61 Sydney Road;
- An active service station was located to immediate west of the site;
- The property was operated as a motel (Governor's Hill motel);
- The site contained underground infrastructures including fuel storage tanks and waste oil tank.
- The site contained two grass areas within the front and south-western portions;
- The site contained a brick building with tile roof within the southern portion;
- The site had mixed groundcover including concrete slab and bitumen;
- The site had a sloping gradient towards northwest;
- No significant visual or odorous indications of surface contamination were encountered.

The sensitive receptors within a 500m radius include residential and commercial properties and vegetated landscapes.

## 5. Site History

### 5.1 History of Site

A review of historical ownership of the site indicates the site had been used for commercial purposes since 1950s. The site was operated as *Governor's Hill Motel* and service station since 1960. No historical aerial images are available for Goulburn. No information about the exact year that service station had been decommissioned could be encountered.

A summary of historical Google street view is contained below, and the images referenced can be seen in **Appendix A**.

**Table 3.** Google street view.

Year	Description
2007	The site was contained a metal awning remined from the previous service station.
2017	The metal awning within the site has been removed.
2022	The site has remained unchanged from 2017.

**Table 4.** Historical ownership.

Year	Proprietor(s)
<b>(Lot 5 DP 793066)</b>	
27 Jul 2018 todate	La Rocco Pty Ltd (ACN 626 746 398)
27 Jul 2011	Sam Eid
20 Sep 2002	Alan David McCarthy
08 Dec 1989	Alan David McCarthy
(08 Dec 1989	(various leases shown on Historical Folio 5/793066 (attached))
<b>(Lot 3 DP 706570)</b>	
17 Aug 1984	Alan David McCarthy
(17 Aug 1984 to 08	(various leases shown on Historical Folio 3/706570 (attached))
<b>(Lot 1 DP 599139 – CTVol 14688 Fol 29)</b>	
04 May 1982	Alan David McCarthy
(22 Mar 1982 to 02	(lease to MC & RG Hair Pty Ltd, of service station and restaurant at Governor's
(20 Mar 1981 to 31	(lease to Graeme Geoffrey Williams & Rosalie Beryl Williams, of Lots 10 – 13
(24 Jun 1981 to 26	(lease to John Randall Moore & Deidre Helen Moore, of premises known as
Jun 1984)	Governor's Hill Motel)
<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres –</b>	
20 Feb 1974	Alan David McCarthy, motel proprietor
<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres –</b>	
23 Nov 1960	Governor's Hill Motel Pty Limited
<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres –</b>	
31 Mar 1959	Reginald William Pidoux, carpenter
<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn and other lands –</b>	
27 Sep 1951	Collier's Transport Proprietary Limited
<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn and other lands –</b>	
09 Dec 1949	Charles Fletcher, retired grazier
03 Jul 1942	Job Gray, retired labourer / executor Allan Frank Gulson, brickworks proprietor
06 Mar 1927	Elizabeth Gulson, married woman / executrix Sam Burgess, estate

## 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 10.7(2) of the Environmental Planning and Assessment Act 1979. At the time of reporting, the Planning Certificate was not available.

## 5.3 NSW EPA Contaminated Land Register

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

## 5.4 Protection of the Environment Operation Act (POEO) Public Register

A search on the POEO public register of licensed and delicensed premises (DECC) was undertaken for the site. No results were found for the site. The following active result was identified within 500m of the site:

- GOULBURN MULWAREE COUNCIL, 100 SINCLAIR STREET, GOULBURN, NSW 2580 (approx. 200m SE of the site), POEO licence, Issued 01 Dec 2000 (Composting, > 5000 - 50000 T annual capacity to receive organics)

## 5.5 SafeWork NSW Hazardous Goods

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

## 5.6 Product Spill and Loss History

The visual site inspection did not identify any obvious evidence of contamination within the site.

## 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.

## 5.8 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 Geology

Data obtained from the Geological Survey of NSW and the Geoscience Australia Stratigraphic Units Database indicate the site is underlain some sequences of the Towrang Beds and Undifferentiated Silurian sediments. Includes sediments and volcanics. Soils have formed in situ and from alluvial-colluvial material derived from the parent rock.

### 6.2 Soil Landscape

A review of the regional maps by the NSW Department of Planning, Industry and Environment indicates the site is generally located within the Bullamalita soil landscape. This landscape is associated with Upper Silurian and Lower Devonian sediments wherever they occur in conjunction with footslopes and valley floors or on landform patterns with slope gradients generally <10%. Commonly acid to neutral yellow duplex soils, usually with bleached A2 horizons that set very hard on drying, occur on lower sideslopes, footslopes and drainage lines. These soils are similar to Soloths. However, they are more fertile than similar soils found in the Blakney Creek soil landscape. Red Podzolic Soils are found on upper slopes whilst Yellow Solodic Soils and Alluvial Soils occur in some drainage lines.

### 6.3 Hydrogeology and Groundwater

The site is located within Tarlo Hydrogeological Landscape (HGL). This HGL covers an area of 300 km<sup>2</sup> and receives 650 to 900 mm of rain per annum. It has mixed landform units characterised by steep hills and mountains of sedimentary rocks from the Devonian Lambie Group, as well as flatter units of the Tarlo formation. There is a high degree of landscape interaction within this unit, as there are a number of differing processes operating within the landscape. This HGL is differentiated from other landscapes because of its geological composition and high capacity to store salts in the colluvial zone and its contribution of high salt content water to regional sub-catchments.

Aquifers within this landscape are unconfined to semi-confined with groundwater flow occurring through fractures in bedrock, permeable soils and saprolite. Lateral flow occurs through colluvial sediments on upper and lower slopes. Groundwater recharge is moderate to high. Groundwater systems are local with short flow lengths and are loosely defined by topographic catchments.

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

A groundwater bore search was conducted on the 2<sup>nd</sup> May 2023 and two boreholes were present within a 500m radius of the site. The nearest bore (GW107419) with available information was located 50m south-east of the site. The standing water level of the bore was 14m and had the following:

**Table 5.** GW107419 bore logs.

From(m)	To(m)	Thickness(m)	Drillers Description	Geological Material
0.00	2.00	2.00	soil, clay	Soil
2.00	26.00	24.00	limestone soft	Limestone
26.00	72.00	46.00	limestone hard	Limestone

It was beyond the scope of works to study the groundwater flow direction. However, based on the regional topography, groundwater is expected to flow north-west towards Mulwaree River (750m NW).

### 6.4 Topography

The regional topography surrounding the site has a gentle sloping (<5%) towards north-west.

### 6.5 Site Drainage

Site drainage is likely to be consistent with the local topography. Stormwater is likely collected by pit and pipe drainage flowing into the municipal stormwater system, which likely flows Mulwaree River (750m NW).



Additionally, large portions of the site consist of accessible soils, which allow for direct infiltration into the sub-soil.

## 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. The ASS risk maps show the chance of acid sulphate soil occurrence. This search indicated that there is "no known occurrence" of ASS underlying the soil at this site.

## 6.7 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.



## 7. Areas of Environmental Concern

Areas of Environmental Concern and their associated Contaminants of potential Concern (CoPC) are summarised in the table below.

**Table 6.** Summary of Potential Areas and Contaminants of Concern

AEC	Potentially Contaminating / Hazardous Activity	CoPC	Likelihood of Site Impact	Comments
Entire site	Importation of fill material. Historical onsite operations.	Metals, TRH, BTEX, PAH, OCP, PCB, Asbestos	Low	Based on the site observations and site topography, the presence of imported fill material is evident.
	Leaks from vehicles	Metals, TRH, BTEX, PAH	Low	no major staining was observed.
	underground storage tanks	Metals, TRH, BTEX, PAH	Moderate	Based on site observation, the potential for hydrocarbon spills within the service area, leaks from the underground tank and associated lines are possible.
	Migration of contaminated groundwater from adjacent service station	Metals, TRH, BTEX, PAH	Low	The site is located upstream of the neighbouring service station. Migration of contaminated groundwater to the site is unlikely.
Building	Presence of hazardous materials,	Lead paint, PCB, Asbestos	Low	Based on site observations presence of hazardous materials within on site structures are possible. A Hazardous Material Survey should be undertaken.

ABBREVIATIONS: ASBESTOS CONTAINING MATERIALS (ACM), BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE (BTEX), OZONE DEPLETING SUBSTANCES (ODS), POLYCHLORINATED BIPHENYLS (PCBs), POLYCYCLIC AROMATIC HYDROCARBON (PAH), TOTAL RECOVERABLE HYDROCARBONS (TRH), SYNTHETIC MINERAL FIBRES (SMF), HAZARDOUS MATERIALS SURVEY (HMS).

## 8. Conceptual Site Model

The Conceptual Site Model (CSM) for the site is prepared and presented in the table below.

**Table 7.** Conceptual Site Model

Potential Sources	Potential Receptor	Potential Exposure Pathway	Complete connection	Risk	Justification/ Control Measures
Contaminated soil from importation of uncontrolled fill across the site.	Future site occupant, construction workers, general public, surrounding ecological receptors.	Dermal contact, inhalation/ ingestion of particulates, vapour intrusion.	Complete (current)	Moderate	Exposure to potentially contaminated soils is possible. However sealed surfaces extend across the site.
ACM and other hazardous material within onsite structures.			Complete (Future)	Low	If present, impacted soils are to be disposed of off-site.
Multiple small scale hydrocarbon spills from refuelling events (tanks or vehicles).	Natural soils	Underground storage of petroleum products, migration from surface source.	Complete (current)	Moderate	Due to underground storage of petroleum products, contamination of natural soils is possible.
			Complete (Future)	Low	If present, impacted soils are to be disposed of off-site.
Storage and dispensing of petroleum products underground.	Mullwaree River (750m NW)	Migration of impacted groundwater and surface water runoff	No (Future)	Low	The local topography surrounding the site falls toward Mullwaree River (750m NW). It is unlikely surface waters from the site reach this waterway during heavy rainfall events.
Migration of contaminated groundwater from adjacent service station			No (Future)	Low	If present, contaminated soils and groundwater are likely to be remediated.
	Underlying aquifer	Leaching and migration of contaminants through groundwater infiltration.	Complete (current)	Moderate	Underground storage of petroleum products may give rise to contamination migrating to the aquifer.
			Complete (Future)	Low	If present, contaminated soil and/or groundwater is likely to be remediated.

## 9. Data Gaps

Data gaps remaining for the site include:

- Extent of Asbestos contamination within fill layer.
- Condition of the soil beneath onsite building.
- Presence of ACM, Pb and other CoPC within on-site structures;

## 10. Assessment Criteria

The following soil assessment criteria were adopted for the investigation.

### 10.1 NEPM Health Investigation Level A (HIL-A) – 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 A – residential with garden/accessible soils.

**Table 8.** HIL-A

Assessment Criteria	NEPM 2013 Soil HIL-A, mg/kg
Pesticides	
HCB	10
Heptachlor	6
Chlordane	50
Aldrin & Dieldrin	6
Endrin	10
DDD+DDE+DDT	240
Endosulfan	270
Methoxychlor	300
Mirex	10
Metals	
Arsenic, As	100
Cadmium, Cd	20
Chromium, Cr	100
Copper, Cu	6,000
Lead, Pb	300
Nickel, Ni	400
Zinc, Zn	7,400
Mercury, Hg	40
Polycyclic Aromatic Hydrocarbons	
Carcinogenic PAH (as BaP TEQ)	3
Total PAH (18)	300

**10.2 NEPM Health Screening Level A (HSL-A) – 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 and groundwater (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 A – residential with garden/accessible soils.

**Table 9.** HSL-A

NEPM Assessment Criteria	NEPM 2013 Residential Soil HSL-A for Vapour Intrusion, 0-<1m depth, Sand, mg/kg	NEPM 2013 Residential Soil HSL-A for Vapour Intrusion, >1-2m depth, Sand, mg/kg
Monocyclic Aromatic Hydrocarbons		
Benzene	0.5	0.5
Toluene	160	220
Ethylbenzene	55	NL
Xylenes	40	60
Polycyclic Aromatic Hydrocarbons		
Naphthalene	3	NL
Total Recoverable Hydrocarbons		
TRH C6-C10 - BTEX (F1)	45	70
TRH >C10-C16 - N (F2)	110	240

**10.3 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 10.** 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

## 10.4 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 below ground level, which corresponds with the root and habitat zone for many species.

**Table 11.** ESL

NEPM Assessment Criteria	NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces, Coarse - Grained Soil, mg/kg
Monocyclic Aromatic Hydrocarbons	
Benzene	50
Toluene	85
Ethylbenzene	70
Xylenes	105
Polycyclic Aromatic Hydrocarbons	
BaPyr (BaP)	0.7
Total Recoverable Hydrocarbons	
TRH C6-C10	180
TRH >C10-C16	120
TRH >C16-C34 (F3)	300
TRH >C34-C40 (F4)	2,800

## 10.5 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 12.** Management Limits

NEPM Assessment Criteria	NEPM 2013 Management Limits for Residential, Parkland and Public Open Space, Coarse -Grained Soil, mg/kg
Total Recoverable Hydrocarbons	
TRH C6-C10	700
TRH >C10-C16	1,000
TRH >C16-C34 (F3)	2,500
TRH >C34-C40 (F4)	10,000

**10.6 NEPM Health Screening Level A (HSL-A) – Residential for Asbestos**

The assessed soil must not contain Asbestos Containing Materials (ACM) in the excess of 0.01%w/w and Asbestos Fines (AF) and Fibrous Asbestos (FA) in excess of 0.001%w/w. Moreover, surface soil within the site must be free of visible ACM, Asbestos Fines (AF) and Fibrous Asbestos (FA).

**Table 13.** HSL-D for Asbestos

Assessment Criteria	Health Screening Level (%w/w) Residential (A)
Asbestos	
ACM	0.01%
FA and AF (friable asbestos)	0.001%
All forms of asbestos	No visible asbestos for surface soils

**10.7 NEPM Groundwater Assessment Criteria (HSL-A and GILs)**

Health Screening Level A (HSL-A) 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 and groundwater (Vapour Risk).

Groundwater Investigation Levels (GILs) are the concentration of a contaminant in the groundwater above which further investigation or a response is required. These levels are based on Australian water quality guidelines and drinking water guidelines and are applicable for assessing human health risk and ecological risk (fresh water or marine water) from direct contact within groundwater.

**Table 14.** Groundwater assessment criteria.

NEPM Assessment Criteria	NEPM 2013 GIL Marine Waters, µg/L	NEPM 2013 GIL Fresh Waters, µg/L	NEPM 2013 Residential Groundwater HSL-A for Vapour Intrusion, 2 - <4m depth, Sand, µg/L
Benzene	500C	950	900
Toluene	-	-	NL
Ethylbenzene	-	-	NL
Xylenes	-	350 as o-x; 200 as p-x	NL
Naphthalene	50C	16	NL
Aroclor 1242	-	0.6	-
Aroclor 1254	-	0.03	-
TRH C6-C10	-	-	1000
TRH >C10-C16	-	-	1000
Arsenic	4.4	3.4	NL
Cadmium	0.7	0.2	-
Chromium	27	-	-
Copper	1.3	1.4	-
Lead (pb)	4.4	3.4	-
Nickel	-	-	-
Zinc	15	8	-
Mercury	0.1	0.06	-

## 11. Sampling and Analysis Plan

### 11.1 Sampling Rationale

**Table 15.** Sampling Rationale

Sampling Decision	Chosen Approach	Justification
Sampling Pattern	Judgmental	This pattern was selected due to the area of the site, access to underlying soil and groundwater, infrastructure, the AEC and CoPC as well as the potential heterogeneity of any contamination.
Sampling Density	In total, sixteen (16) primary soil samples were obtained from eight (8) boreholes. Two (2) samples per borehole	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 on site, location and condition of structures.
Duplicate Samples (total)	Rate 1:16 samples Duplicate sample: BH1.2	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	Two (2) samples per borehole Shallow sample within fill/topsoil layer – 0-0.15m bgl Deeper sample from natural soil layer – 1.3 to 4.5m bgl	These depths were selected in compliment with sampling density and to target depths of potential contaminants. Additionally, soil thickness and proximity to the aquifer were considered when determining these depths.

### 11.2 Field Sampling Methodology

The sample were completed by drill auger to a depth of approximately 1.5 to 4.5m below ground level (bgl). Soil samples were collected from shallow fill/topsoil (0-0.15m) below the surface and natural soils by clean nitrile gloves and placed in laboratory supplies containers. The auger was decontaminated with detergent and deionised water between sample pits. Additional fill (0-0.15m) samples were collected in 500ml zip bags for analysis of Asbestos. PID screening was undertaken on all soil samples. Samples were stored on ice in an esky while on-site and in transit to a NATA accredited laboratory for the analysis of the CoPC under Chain of Custody (COC) documentation.

One (1) groundwater monitoring well was installed onsite to a depth of 4.5m. One (1) primary water sample and one intra-laboratory water sample were collected from the well. PID screening was undertaken for the well. The bore logs are available in Appendix D.

**Table 16.** Sample details

Borehole	Sample	Depth (m)	Soil Type	PID
BH1	BH1.1	0.1-0.25	Silty Sand	<1.0
	BH1.2 (D1)	2.7-2.8	Sandy Silty Clay	<1.0
BH2	BH2.1	0.1-0.25	Silty Sand	<1.0
	BH2.2	1.3-1.5	Sandy Silty Clay	<1.0
BH3	BH3.1	0.1-0.25	Silty Sand	<1.0
	BH3.2	4.2-4.3	Sandy Silty Clay	<1.0
BH4	BH4.1	0.1-0.25	Silty Sand	<1.0
	BH4.2	1.3-1.4	Sandy Silty Clay	<1.0
BH5	BH5.1	0.1-0.25	Silty Sand	<1.0
	BH5.2	4.4-4.5	Sandy Silty Clay	<1.0
BH6	BH6.1	0.1-0.25	Silty Sand	<1.0
	BH6.2	1.4-1.5	Sandy Silty Clay	<1.0
BH7	BH 7.1	0.1-0.25	Silty Sand	<1.0
	BH 7.2	1.4-1.5	Sandy Silty Clay	<1.0
BH8	BH 8.1	0.1-0.25	Silty Sand	<1.0
	BH 8.2	2.9-3.0	Sandy Silty Clay	<1.0

**Table 17.** Groundwater Monitoring Well Information

Well ID	Depth (m)	Depth to Water	PID	Odour
MW1	4.5	2.25	662	Mild

## 11.3 Laboratory Testing Program

**Table 18.** Laboratory Testing Program

Location	Borehole	Analyses
Fill layer entire site	BH1 to BH8	Metals, TPH, BTEX, PAH, OCP, OPP, Asbestos
Natural layer entire site	BH1 to BH8	Metals, TPH, BTEX, PAH, OCP, OPP
Water	MW1	Metals, TPH, BTEX, PAH, OCP, OPP, PCBs, pH
-	Trip Spike	BTEX
-	Trip Blank	BTEX



## 11.4 Field Quality Assurance & Quality Control Procedures

The following procedures were undertaken to ensure the data quality for each sample:

- Selection of appropriate sampling methods;
- Decontamination procedures;
- Appropriate containers selected for planned analyses;
- Appropriate preservation and storage measures to minimise contamination or analyte loss;
- Statement of duplicate frequency;
- Sampling devices and equipment;
- Field instrument calibrations.

## 11.5 Laboratory Quality Assurance & Quality Control Procedures

The following procedures were undertaken to ensure the data quality for each sample:

- A copy of signed chain-of-custody forms acknowledging receipt date, time and temperature and identity of samples included in shipments;
- Record of holding times;
- Analytical methods used, including any deviations or method detection limit;
- Laboratory accreditation for analytical methods used;
- Laboratory performance for the analytical method using duplicates calculated as Relative Percentage Differences (RPD);
- Surrogates used during extraction process;
- Practical quantification limits (PQL);
- Reference laboratory control sample (LCS) used throughout the full method process from extraction to injection;
- Matrix spikes (MS) indicate percentage of recovery of an expected result, via a known concentration if an analyte spiked in a field sub-sample;
- Laboratory blank results (tabulate);
- Results are within control chart limits;
- Instrument detection limit.

## 12. Data Quality Objectives (DQOs)

The DQOs 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 19.** Data Quality Objectives

Step 1: State the problem	NEO Consulting have identified the following risks to human and environmental receptors:
	Potentially contaminated fill materials imported and deposited onsite. Potential contamination from historical onsite operation as service station. Underground storage of petroleum products.
Step 2: Identify the decision/goal of the study	<p>NEO Consulting considered the site history, the use of this site, and the NEPM Guidelines, when identifying the decisions required for the site to be considered suitable for its continued land use. The decisions required to meet these decisions are as follows:</p> <ul style="list-style-type: none"> <li>• Was the sampling, analysis and quality plan designed appropriate to achieve the aim of the TDSI?</li> <li>• If present, is on-site contamination capable of migrating off-site?</li> <li>• Are there any unacceptable risks to the future on site or off-site receptors in the soil or groundwater?</li> <li>• Is the site suitable for the proposed development?</li> </ul>

Step 3: Identify the information inputs	<p>NEO Consulting has identified issues of potential environmental concern; Appropriate identification of CoPC;</p> <ul style="list-style-type: none"> <li>• Soil and groundwater sampling and analysis programs across the site;</li> <li>• Appropriate quality assurance/quality control to enable an evaluation of the reliability of the analytical data; and</li> <li>• Screening sampler analytical results against appropriate assessment criteria for the intended land use.</li> </ul>
Step 4: Define the boundaries of the study	<p>The study boundaries are:</p> <ul style="list-style-type: none"> <li>• Lateral boundary: The footprint of the imported fill;</li> <li>• Vertical boundary: The soil interface to the maximum depth reached during soil and groundwater sampling; and</li> <li>• Temporal boundary: Constrained to a single visit to the site.</li> </ul>
Step 5: Develop the analytical approach	<p>Here, NEO Consulting integrate the information from steps 1 – 4 to support and justify our proposed analytical approach. Our aim is to confirm if the site is suitable for the proposed development. If the findings of the SAQP identify;</p> <ul style="list-style-type: none"> <li>• Any exceedance of the adopted assessment criteria for soil;</li> <li>• Groundwater flow direction confirms contamination likely to be transported offsite;</li> <li>• Professional opinion that further assessment is required; and/or</li> <li>• Adopted RPD for QC data not met.</li> </ul> <p>Further assessment may be required to confirm suitability of the site in the form of; Data Gap investigation, Remediation Action Plan and Site Validation.</p>
Step 6: Specify performance or acceptance criteria	<p>To determine if the soils and groundwater are within acceptable ranges, we employ the following NEPM criteria:</p> <ul style="list-style-type: none"> <li>• The 95% upper confidence limit (UCL) is calculated for the mean concentration of each contaminant for each individual sample across a sampling plane (eg. surface samples, depth samples), which provides the probability that 95% of the data obtained will meet the acceptance criteria; and</li> <li>• a limit on decision error will be 5% that the conclusion may be incorrect.</li> </ul>
Step 7: Optimise the design for obtaining data	<p>Systematic sampling pattern within the AEC 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). This sampling pattern will ensure that critical locations are assessed and analysed appropriately for COPC.</p>

## 13. Analytical Results

### 13.1 Soil Analytical Results

Identified impacted soils included one location (BH5). Asbestos (ACM) identified above Health Screening Level (HSL-A) in this location.

Groundwater analytical results indicated, Benzene, TRH C6-C10 and >C10-C16 concentrations exceeded NPEM HSL-A. Moreover, Benzene and Xylenes concentrations exceeded NEPM GIL for Marine and Fresh water.

Analytical results are provided in Appendix B.

## 13.2 Quality Control (QC) Sampling

The intra-laboratory sample analytical results were within <30%RPD of the primary sample analytical results. Trip spike recovery was 94-101%. Trip blank did not contain BTEX. QA/QC sample analytical results indicate a quality data set.

## 14. Data Quality Indicators

**Table 20.** Field Data Quality Indicators

Completeness	The TDSI ensured that all critical locations for soil and water were sampled, and samples were collected within the systematic formation at the appropriate depths during a single visit to the site. This plan also aligns with Standard Operating Practices (SOP), to produce valid and reproducible data. NEO Consulting's qualified environmental consultants are experience and ensure compliance and completion of all sample recording, labelling and COC procedures.
Comparability	The TDSI aligns with SOP to produce qualitative data. NEO Consulting's qualified environmental consultants sampled uniformly to ensure that each individual sample collection contained sufficient soil to produce a dataset that is reflective of the environmental conditions of the site at time of collection. All samples were handled and stored in a manner that maximised the preservation of all potential CoPC within the soil and water samples. Climatic and physical conditions at the time of sample collection were considered and recorded.
Representativeness	The TDSI aligns with SOP to produce a qualitative dataset that is representative of both soil and groundwater on site. NEO Consulting's qualified environmental consultants ensured sample collection, handling, storage and transfer was appropriate for both soil and groundwater. Additionally, samples reflect environmental conditions at time of collection and samples are homogenised to maximise detection during laboratory analysis.
Precision	The TDSI aligns with SOP to produce qualitative data that measures the variability of results. The primary technique for evaluating field precision is by collection of duplicate samples, to measure the difference in response between two (2) different samples from the sample location. NEO Consulting's qualified environmental consultants ensured that duplicate frequency was appropriate to sampling plan and area of site. The % RPD will be considered acceptable if the values are less than 30% (NEPC, 2013). Should there be a result that is greater than 30% difference, then a "review should be conducted of the cause (e.g. instrument calibration, appropriateness of method used, volatile hydrocarbon consideration, contaminant bound)" (NEPC, 2013).
Accuracy	The TDSI aligns with SOP to produce qualitative data that measures bias within the results. NEO Consulting's qualified environmental consultants ensured all COC procedures were carried out appropriately to minimise incidents of cross contamination or incorrect handling and storage of samples.

**Table 21.** Laboratory Data Quality Indicators

Completeness	The allocated NATA accredited laboratory produce reliable and thorough datasets. All samples were analysed for CoPC using an appropriate and standardised extraction method and analytical instrument. Samples were received, extracted and injected within specified holding times. The laboratory qualified environmental organic chemists ensured completion of COC procedures, wet chemistry, data integration and calculation.
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Comparability	Analytical procedures within the NATA accredited laboratory were specialised and standardised for both soil and groundwater samples. The qualified environmental organic chemists determined the appropriate extraction methods and analytical instruments used based on response factor and ability to target CoPC. Spikes and surrogates were chosen based on appropriateness to avoid coelution with contaminants indigenous to the samples and across varying retention times to map response factor. The chosen spikes and surrogates were used for all samples and analysis was completed within the same batch to account for analytical instrument calibration (in addition system blanks support instrument calibration baseline results).
Representativeness	The NATA accredited laboratory procedures ensured the data is representative of the site by using appropriate extraction and analytical instrument methods. The qualified environmental organic chemists followed COC procedures; ensured that extraction methods were specialised for each potential contaminant and standardised across all samples; and used analytical instruments suitable for the sample type, targeted CoPC, extraction method, instrument sensitivity, response factor and detection limit.
Precision	Quantitative measures undertaken by the NATA accredited laboratory include field and laboratory duplicates. The qualified environmental organic chemists produced a field duplicate analysis that measured the precision of field sampling and maps the potential heterogeneity of contamination across a field sampling location. The laboratory duplicate procedure included two (2) laboratory sub-samples for extraction and analysis from the one (1) field sample in the collection container (250mL jar for soil, and both the 125mL glass amber bottles and 2x 44mL glass vials for groundwater). The two (2) laboratory sub-samples map the potential heterogeneity of contamination that can occur within the one (1) field samples collection.
Accuracy	Quantitative measures undertaken by the NATA accredited laboratory's qualified environmental organic chemists include the analysis of field, rinsate and method blanks; spike and surrogate analysis to measure response factor and retention time; laboratory control samples; appropriateness of analytical method; and timing and completion of analysis.

## 15. Conclusion

Identified impacted soils included one location (BH5). Asbestos identified above Health Screening Level (HSL-A) in this location. Asbestos contamination is expected to be resulting from importation of uncontrolled fill across the site. All other soil analytes were below NPEM Health and Ecological assessment criteria for residential (A) sites.

Groundwater analytical results indicated, Benzene, TRH C6-C10 and >C10-C16 concentrations exceeded NPEM HSL-A. Moreover, Benzene and Xylenes concentrations exceeded NEPM GIL for Marine and Fresh water. These exceedances are expected to be resulting from historical underground storage of petroleum products.

Based on the site investigation and analytical results, NEO Consulting considers that there is potential for Asbestos and petroleum contamination to exist on the site. The site can be considered suitable for proposed continued land use provided the recommendations are implemented.

## 16. Recommendations

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

- The site should decommission the current UPSS onsite, this will require the excavation and removal of underground tanks and associated pipeworks. The implementation of a RAP will be required to ensure the decommissioning process is outlined and followed.
- A Remedial Action Plan (RAP) should be prepared by a suitably qualified person to delineate the identified contamination. Additionally, Data Gaps for the site should be managed within the RAP.
  - Removal of underground storage tanks and infrastructure in accordance with Clause 24 of NSW EPA, *Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation, 2019*:
    - A report referred to in subclause (1) must: (a) be prepared by a suitably qualified person in accordance with EPA guidelines, and (b) describe the processes used to remove the tanks concerned and assess contamination at the storage site, and (c) describe any remediation work carried out during the removal or replacement of the tanks concerned.
- 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 is confirmed by the HMS, then the following will be required:
  - An Asbestos Removal Management Plan (ARMP);
  - The removal works will require a Class A or 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 by a 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 on site be undertaken in accordance with relevant Australian Standards, SafeWork NSW codes of practice and any other applicable requirements;
- If any CoPCs are detected in the post demolition sampling, then validation of the underlying natural soils may also be required.
- Any soils requiring excavation, onsite reuse and/or removal must be classified in accordance with "Waste Classification Guidelines Part 1: Classifying Waste" NSW EPA (2014); and
- 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, including asbestos.

## References

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### Statutory Requirements

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

### Regulatory Framework

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 (3<sup>rd</sup> 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; and  
Work Health and Safety Regulation, 2011.



## Limitations

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The findings of this report are based on the Scope of Work outlined in Section 2. NEO Consulting 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 NEO Consulting personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, NEO Consulting assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside of NEO Consulting, 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. NEO Consulting 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.

NEO Consulting 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.

## NEO CONSULTING



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## APPENDIX A

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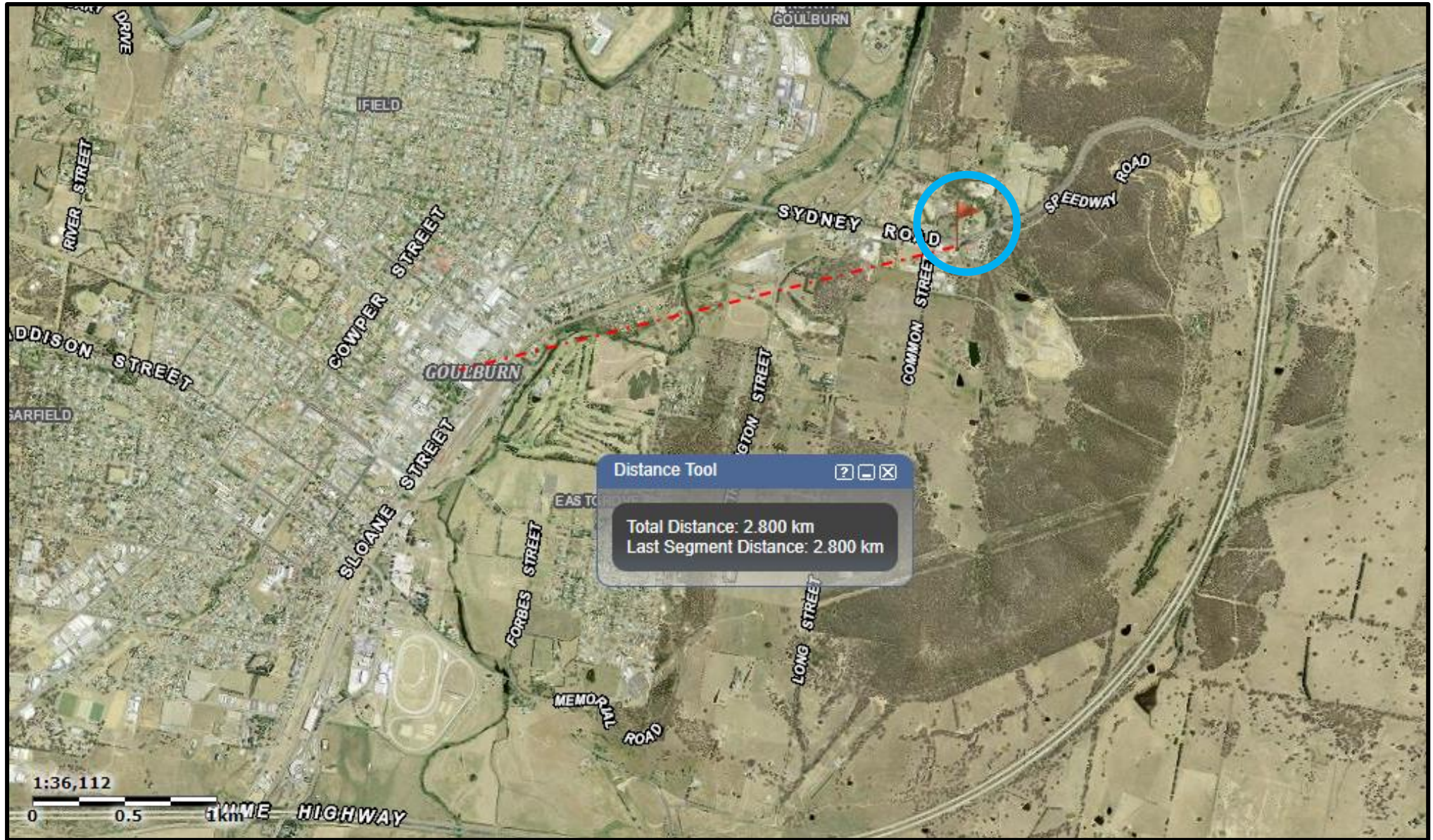
Figures and Photographic Log

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Figure 1. The site is located approximately 2.8km west of Goulburn CBD.



 Site location

Source: Six Maps 2022

Figure 1	Locality Map
Project	61 Sydney Road, Goulburn NSW 2580





Figure 2. The approximate area of the property is 6,025m<sup>2</sup> and the approximate area of the investigation area is 1,157m<sup>2</sup>.

- Boundary of the property
- Boundary of investigation area







Source: Nearmap 2022

Figure 2	Site Area
Project	61 Sydney Road, Goulburn NSW 2580





Figure 3. Eight (8) soil samples were obtained from the site with systematic sampling approach. One (1) groundwater monitoring well was installed onsite.

-  Surface gradient
-  Location of underground tanks and infrastructure
-  Sample Locations
-  Monitoring Well



Source: Nearmap 2023

Figure 3	Site Area
Project	61 Sydney Road, Goulburn NSW 2580



Figure 4. The google street of the site from 2007 indicates the site was contained a metal awning remained from the previous service station.



Source: NSW Historical Imagery 2023

Figure 4	Google Street View 2007
Project	61 Sydney Road, Goulburn NSW 2580





Figure 5. The google street view of the site from 2017 indicates the metal awning within the site has been removed.



Source: NSW Historical Imagery 2023

Figure 5	Google Street View 2017
Project	61 Sydney Road, Goulburn NSW 2580



Figure 6. The google street view of the site from 2021 indicates the site has remained unchanged from 2017.



Source: NSW Historical Imagery 2023

Figure 6	Google Street View 2022
Project	61 Sydney Road, Goulburn NSW 2580





Figure 7. Overall view of the site.



Figure 8. Location of underground storage tanks within central portion of the site.





Figure 9. Building structure within the southern portion of the site.



Figure 10. Eastern portion of the site and the concrete groundcover.





Figure 11. Suspect waste oil tank within south-western portion of the site.



Figure 12. Goulburn service station to the west of the site.





Figure 13. Drilling of BH1.



Figure 14. Drilling of BH8.





Figure 15. Drilling of BH5/MW1.



Figure 16. Installation of MW1.



## APPENDIX B

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Analytical Results and Laboratory Reports

**NEO** CONSULTING

**Table 22.** Total Recoverable Hydrocarbon (TRH) analytical results.

Assessment Criteria		TRH C <sub>6</sub> -C <sub>10</sub>	TRH C <sub>6</sub> -C <sub>10</sub> - BTEX (F1)	TRH >C <sub>10</sub> -C <sub>16</sub>	TRH >C <sub>10</sub> -C <sub>16</sub> - N (F2)	TRH >C <sub>16</sub> -C <sub>34</sub> (F3)	TRH >C <sub>34</sub> -C <sub>40</sub> (F4)
NEPM 2013 Residential Soil HSL-A for Vapour Intrusion, 0-<1m depth, Sand, mg/kg			45		110		
NEPM 2013 Soil Generic ESL for Urban, Residential and Public Open Spaces, coarse-grained soil, mg/kg		180		120		300	2800
NEPM 2013 Management Limits for Residential, Parkland and Public Open Space, coarse-grained soil, mg/kg		700		1000		2500	10 000
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
BH1.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH1.2	2.7-2.8	<25	<25	<25	<25	<90	<120
BH2.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH2.2	1.3-1.5	<25	<25	<25	<25	<90	<120
BH3.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH3.2	4.2-4.3	<25	<25	<25	<25	<90	<120
BH4.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH4.2	1.3-1.4	<25	<25	<25	<25	<90	<120
BH5.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH5.2	4.4-4.5	<25	<25	<25	<25	<90	<120
BH6.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH6.2	1.4-1.5	<25	<25	<25	<25	<90	<120
BH 7.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH 7.2	1.4-1.5	<25	<25	<25	<25	<b>100</b>	<120
BH 8.1	0.1-0.25	<25	<25	<25	<25	<90	<120
BH 8.2	2.9-3.0	<25	<25	<25	<25	<90	<120
Duplicate1 (BH1.2)	2.7-2.8	<25	<25	<25	<25	<90	<120

**Table 23.** Benzene, Toluene, Ethylbenzene and Xylene (BTEX) analytical results.

Assessment Criteria		Benzene	Toluene	Ethylbenzene	Xylenes
NEPM 2013 Residential Soil HSL-A for Vapour Intrusion, 0-<1m depth, Sand, mg/kg		0.5	160	55	40
NEPM 2013 Soil ESL for Urban, Residential and Public Open Spaces, coarse-grained soil, mg/kg		50	85	70	105
Sample	Depth (m)	mg/kg	mg/kg	mg/kg	mg/kg
BH1.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH1.2	2.7-2.8	<0.1	<0.1	<0.1	<0.3
BH2.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH2.2	1.3-1.5	<0.1	0.2	<0.1	<0.3
BH3.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH3.2	4.2-4.3	<0.1	<0.1	<0.1	<0.3
BH4.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH4.2	1.3-1.4	<0.1	<0.1	<0.1	<0.3
BH5.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH5.2	4.4-4.5	<0.1	<0.1	<0.1	<0.3
BH6.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH6.2	1.4-1.5	<0.1	<0.1	<0.1	<0.3
BH 7.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH 7.2	1.4-1.5	<0.1	<0.1	<0.1	<0.3
BH 8.1	0.1-0.25	<0.1	<0.1	<0.1	<0.3
BH 8.2	2.9-3.0	<0.1	0.1	<0.1	<0.3
Duplicate1 (BH1.2)	2.7-2.8	<0.1	<0.1	<0.1	<0.3
Trip Spike	-	97%	122%	98%	98%
Trip Blank	-	<0.1	<0.1	<0.1	<0.3

**Table 24.** Polycyclic Aromatic Hydrocarbon (PAH) analytical results.

Assessment Criteria		Naphthalene	Benzo(a)pyrene	Carcinogenic PAH (as BaP TEQ)	Total PAH (18)
NEPM 2013 Residential Soil HSL-A for Vapour Intrusion, 0-<1m depth, Sand, mg/kg		3			
NEPM 2013 Soil Generic EIL for Urban Residential and Public Open Space, mg/kg		170			
Soil ESL for Urban, Residential and Public Open Spaces, coarse-grained soil, mg/kg			0.7		
NEPM 2013 Residential Soil HIL-A, mg/kg			1.00 TEF	3	300
Sample	Depth (m)	mg/kg	mg/kg	TEQ (mg/kg)	mg/kg
BH1.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH1.2	2.7-2.8	<0.1	<0.1	<0.3	<0.8
BH2.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH2.2	1.3-1.5	<0.1	<0.1	<0.3	<0.8
BH3.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH3.2	4.2-4.3	<0.1	<0.1	<0.3	<0.8
BH4.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH4.2	1.3-1.4	<0.1	<0.1	<0.3	<0.8
BH5.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH5.2	4.4-4.5	<0.1	<0.1	<0.3	<0.8
BH6.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH6.2	1.4-1.5	<0.1	<0.1	<0.3	<0.8
BH 7.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH 7.2	1.4-1.5	<0.1	<0.1	<0.3	<0.8
BH 8.1	0.1-0.25	<0.1	<0.1	<0.3	<0.8
BH 8.2	2.9-3.0	<0.1	<0.1	<0.3	<0.8
Duplicate1 (BH1.2)	2.7-2.8	<0.1	<0.1	<0.3	<0.8

**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-A, mg/kg		100	20	100	6000	300	400	7400	40
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
BH1.1	0.1-0.25	<b>1</b>	<0.3	<b>2.5</b>	<b>3.3</b>	<b>8</b>	<b>0.8</b>	<b>12</b>	<0.05
BH1.2	2.7-2.8	<b>1</b>	<0.3	<b>3.3</b>	<b>1.5</b>	<b>3</b>	<b>0.5</b>	<2	<0.05
BH2.1	0.1-0.25	<b>2</b>	<0.3	<b>2.9</b>	<b>4.4</b>	<b>15</b>	<b>1.1</b>	<b>33</b>	<0.05
BH2.2	1.3-1.5	<1	<0.3	<b>1.4</b>	<b>0.7</b>	<b>2</b>	<0.5	<2	<0.05
BH3.1	0.1-0.25	<1	<0.3	<b>2.3</b>	<b>1.8</b>	<b>5</b>	<b>0.9</b>	<b>4.4</b>	<0.05
BH3.2	4.2-4.3	<1	<0.3	<b>3.0</b>	<b>0.8</b>	<b>2</b>	<0.5	<2	<0.05
BH4.1	0.1-0.25	<b>3</b>	<0.3	<b>2.8</b>	<b>12</b>	<b>4</b>	<b>1.2</b>	<b>2.8</b>	<0.05
BH4.2	1.3-1.4	<1	<0.3	<b>1.5</b>	<b>1.2</b>	<b>2</b>	<0.5	<b>5.3</b>	<0.05
BH5.1	0.1-0.25	<1	<0.3	<b>2.6</b>	<b>1.9</b>	<b>4</b>	<b>0.7</b>	<b>3.9</b>	<0.05
BH5.2	4.4-4.5	<b>6</b>	<0.3	<b>14</b>	<b>5.9</b>	<b>6</b>	<b>1.5</b>	<b>6.7</b>	<0.05
BH6.1	0.1-0.25	<b>2</b>	<0.3	<b>5.2</b>	<b>9.2</b>	<b>5</b>	<b>1.5</b>	<b>5.1</b>	<0.05
BH6.2	1.4-1.5	<1	<0.3	<b>9.0</b>	<b>12</b>	<b>3</b>	<b>4.5</b>	<b>14</b>	<0.05
BH 7.1	0.1-0.25	<b>2</b>	<0.3	<b>6.2</b>	<b>2.5</b>	<b>4</b>	<b>1.1</b>	<b>3.0</b>	<0.05
BH 7.2	1.4-1.5	<b>1</b>	<0.3	<b>9.5</b>	<b>8.9</b>	<b>9</b>	<b>3.8</b>	<b>18</b>	<0.05
BH 8.1	0.1-0.25	<b>2</b>	<0.3	<b>22</b>	<b>11</b>	<b>6</b>	<b>6.2</b>	<b>19</b>	<0.05
BH 8.2	2.9-3.0	<b>1</b>	<0.3	<b>4.6</b>	<b>2.1</b>	<b>3</b>	<b>0.8</b>	<b>2.8</b>	<0.05
Duplicate1 (BH1.2)	2.7-2.8	<b>5</b>	<0.3	<b>5.3</b>	<b>1.7</b>	<b>3</b>	<b>0.5</b>	<b>2.1</b>	<0.05



**Table 26.** Pesticides analytical results. Values are presented as mg/kg.

Assessment Criteria		HCB	Heptachlor	Chlordane	Aldrin & Dieldrin	Endrin	DDT	DDD+DDE +DDT	Endosulfan	Methoxychlor	Mirex
NEPM 2013 Residential Soil HIL-A, mg/kg		10	6	50	6	10		240	270	300	10
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
BH1.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH1.2	2.7-2.8	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH2.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH2.2	1.3-1.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH3.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH3.2	4.2-4.3	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH4.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH4.2	1.3-1.4	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH5.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH5.2	4.4-4.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH6.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH6.2	1.4-1.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH 7.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH 7.2	1.4-1.5	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH 8.1	0.1-0.25	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
BH 8.2	2.9-3.0	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1
Duplicate1(BH1.2)	2.7-2.8	<0.1	<0.2	<0.2	<0.3	<0.2	<0.2	<0.6	<0.5	<0.1	<0.1

**Table 27.** Asbestos analytical results.

Assessment Criteria		Asbestos		
NEPM 2013 Residential Soil HSL-A, mg/kg		Detected	Bonded ACM	FA and AF
			0.01%w/w	0.001%w/w
Sample	Depth (m)	Yes/No	%w/w	%w/w
BH1	0.1-0.25	No	<0.01	<0.001
BH2	0.1-0.25	No	<0.01	<0.001
BH3	0.1-0.25	No	<0.01	<0.001
BH4	0.1-0.25	No	<0.01	<0.001
BH5	0.1-0.25	<b>Yes</b>	<0.01	<b>0.004</b>
BH6	0.1-0.25	No	<0.01	<0.001
BH7	0.1-0.25	No	<0.01	<0.001
BH8	0.1-0.25	No	<0.01	<0.001

**Table 28.** Groundwater Health Screening Levels for BTEX, TRH C6-C10 - BTEX (F1) and TRH >C10-C16 - N (F2).

NEPM Assessment Criteria	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	TRH C6-C10	TRH >C10-C16
NEPM 2013 Commercial/Industrial Groundwater HSL-A for Vapour Intrusion, 2 - <4m depth, Sand, µg/L	900	NL	NL	NL	NL	1000	1000
W1	<b>1100</b>	<b>93</b>	<b>920</b>	<b>840</b>	<0.5	<b>13 000</b>	<b>2 600</b>
DWS1 (Duplicate)	<b>1100</b>	<b>99</b>	<b>980</b>	<b>860</b>	<0.5	<b>13 000</b>	<b>2 500</b>

**Table 29.** Groundwater Investigation Levels (GIL) for BTEX, Naphthalene and PCBs.

NEPM Assessment Criteria	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	Aroclor 1242	Aroclor 1254
NEPM 2013 GIL Marine Waters, µg/L	500C	-	-	-	50C	-	-
NEPM 2013 GIL Fresh Waters, µg/L	950	-	-	350 as o-x; 200 as p-x	16	0.6	0.03
W1 (µg/L)	<b>1100</b>	<b>93</b>	<b>920</b>	<b>840</b>	<b>3.1</b>	<1	<1
DWS1 (Duplicate)	<b>1100</b>	<b>99</b>	<b>980</b>	<b>860</b>	<b>5.6</b>	<1	<1

**Table 30.** Groundwater Investigation Levels (GIL) for Metals.

NEPM Assessment Criteria	Arsenic	Cadmium	Chromium(III)	Copper	Lead	Nickel	Zinc	Mercury
NEPM 2013 GIL Marine Waters, µg/L	-	0.7	27	1.3	4.4	7	15	0.1
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
W1 (µg/L)	<b>4</b>	<0.1	<1	<1	<b>2</b>	<b>1</b>	<5	<0.1
DWS1 (Duplicate)	<b>4</b>	<0.1	<1	<1	<b>2</b>	<b>1</b>	<5	<0.1



**SGS Environmental Services Sydney**  
 Unit 16, 33 Maddox Street  
 Alexandria NSW 2015  
 Telephone No: (02) 85940400  
 Facsimile No: (02) 85940499  
 Email: [au.samplerreceipt.sydneyp@sgs.com](mailto:au.samplerreceipt.sydneyp@sgs.com)  
 Lab ID Number: (please quote on correspondence)

**CHAIN OF CUSTODY & ANALYSIS REQUEST**

Company Name:		Neo Consulting Pty Ltd		Project Name/No:		N6527	
Address:		186 Riverstone Parade Riverstone NSW 2765		Purchase Order No:		QUOTE NUMBER: 322722	
Contact Name:		Nick Caltabiano		Results Required Date:		Next Day/3 days/ <u>Standard</u>	
Quotation No:				Telephone:		0416680375	
Matrix (Tick as appropriate)		NO. OF CONTAINERS		Email Results and Invoices to:		nick@neoconsulting, admin@neoconsulting, oskar@neoconsulting, sarah@neoconsulting, eshan@neoconsulting	
Soil Sample		NEO 1		Asbestos NEPM		Additional Report Formats	
Water Sample		NEO 2		Asbestos ID		NEPM CSV ESDAT DQO GO, Guidelines Others	
Other		NEO 3				Notes/Guidelines/LOR/ Special Instructions	
		NEO 4					

SGS EHS Sydney COC  
**SE246394**

SGS ID	Client Sample ID	Sampling Date/ Time	Soil Sample	Water Sample	Other	NO. OF CONTAINERS	NEO 1	NEO 2	NEO 3	NEO 4	Asbestos NEPM	Asbestos ID
1	BH1.1	24/04/2023	X			2		X			X	
2	BH1.2	24/04/2023	X			1		X				
3	BH2.1	24/04/2023	X			2		X		X		
4	BH2.2	24/04/2023	X			1		X				
5	BH3.1	24/04/2023	X			2		X		X		
6	BH3.2	24/04/2023	X			1		X				
7	BH4.1	24/04/2023	X			2		X		X		
8	BH4.2	24/04/2023	X			1		X				
9	BH5.1	24/04/2023	X			2		X		X		
10	BH5.2	24/04/2023	X			1		X				
11	BH6.1	24/04/2023	X			2		X		X		
12	BH6.2	24/04/2023	X			1		X				
13	BH7.1	24/04/2023	X			2		X		X		

Relinquished By: Jacob King Date/Time: 24/04/2023 9am Received By: Date/Time: 24/4/23 10:10 am  
 Relinquished By: Date/Time: Received By: Date/Time:  
 Samples Intact: Yes  No Temperature: 19.4 °C Sample Security Sealed: Yes  No Hazards: e.g. may contain Asbestos  
 Comments / Subcontracting details:



**SGS Environmental Services Sydney**  
 Unit 16, 33 Maddox Street  
 Alexandria NSW 2015  
 Telephone No: (02) 85940400  
 Facsimile No: (02) 85940499  
 Email: [au.sampler@sgs.com](mailto:au.sampler@sgs.com)  
 Lab ID Number: (please quote on correspondence)

**CHAIN OF CUSTODY & ANALYSIS REQUEST**

Company Name:		Neo Consulting Pty Ltd		Project Name/No:		N6527	
Address:		186 Riverstone Parade Riverstone NSW 2765		Purchase Order No:		QUOTE NUMBER: 322722	
Contact Name:		Nick Caltabiano		Results Required Date:		Next Day/3 days/ <u>Standard</u>	
Quotation No:				Telephone:		0416680375	
Matrix (Tick as appropriate)		NO. OF CONTAINERS		Email Results and Invoices to:		nick@neoconsulting, admin@neoconsulting, oskar@neoconsulting, sarah@neoconsulting, eshan@neoconsulting	
Soil Sample		2		ANALYSIS REQUESTED		Additional Report Formats	
Water Sample		NEO 1		Asbestos NEPM		NEPM CSV ESDAT DOO GO, Guidelines	
Other		NEO 2		Asbestos ID		Others	
		NEO 3		BTEX		Notes/Guidelines/LOR/ Special Instructions	
		NEO 4					
		Asbestos NEPM					
		Asbestos ID					
		BTEX					

SGS ID	Client Sample ID	Sampling Date/ Time	Soil Sample	Water Sample	Other	NO. OF CONTAINERS	NEO 1	NEO 2	NEO 3	NEO 4	Asbestos NEPM	Asbestos ID	BTEX	Date/Time:	Received By:	Date/Time:	Hazards: e.g. may contain Asbestos
14	BH7.2	24/04/2023	X			2		X			X						
15	BH8.1	24/04/2023	X			1		X									
16	BH8.2	24/04/2023	X			2		X		X							
17	Duplicate 1	24/04/2023	X			1		X									
18	TS	24/04/2023			X	1						X					
19	TB	24/04/2023			X	1						X					
20	W1	24/04/2023		X		1			X								
21	DWS1	24/04/2023		X		1			X								

Relinquished By: Jacob King  
 Date/Time: 24/04/2023 9am  
 Received By: Q  
 Date/Time: 24/4/23 10:30

Relinquished By: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

Samples Intact: Yes / No  
 Temperature: 19.4 °C  
 Sample Security Sealed: Yes / No

Comments / Subcontracting details:

## Yin, Emily (Sydney)

---

**From:** nick caltabiano <nick@neoconsulting.com.au>  
**Sent:** Thursday, 27 April 2023 5:53 PM  
**To:** AU.SampleReceipt.Sydney, AU (Sydney)  
**Cc:** ADMIN@neoconsulting.com.au; Oskar Lamperts; Sarah Houlahan; eshan@neoconsulting.com.au  
**Subject:** [EXTERNAL] Re: SE246394 / N6527

\*\*\* WARNING: this message is from an EXTERNAL SENDER. Please be cautious, particularly with links and attachments. \*\*\*

---

Thanks,

Can we please do BH8.1, not BH7.2 or BH8.2

Kind regards

Nick

On Thu, 27 Apr 2023 at 5:44 pm, AU.SampleReceipt.Sydney, AU (Sydney) <[AU.SampleReceipt.Sydney@sgs.com](mailto:AU.SampleReceipt.Sydney@sgs.com)> wrote:

Hi All,

Could you please check the second page and confirm which samples are being requested for ASB NEPM? We have no BH7.2 or BH8.2, but we do have BH8.1. Apologies for the oversight.

Regards,

**Michael Bousquet**  
**Sydney Sample Receipt Team**  
**Environment, Health & Safety**  
Sample Receipt

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

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

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## SAMPLE RECEIPT ADVICE

SE246394

### 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 **N6527**  
Order Number **N6527**  
Samples 21

### 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 24/4/2023  
Report Due Tue 2/5/2023  
SGS Reference **SE246394**

### SUBMISSION DETAILS

This is to confirm that 21 samples were received on Monday 24/4/2023. Results are expected to be ready by COB Tuesday 2/5/2023. Please quote SGS reference SE246394 when making enquiries. Refer below for details relating to sample integrity upon receipt.

Sample counts by matrix	19 Soil, 2 Water	Type of documentation received	COC
Date documentation received	24/4/2023	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	19.4°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

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

CLIENT DETAILS

Client NEO CONSULTING PTY LTD

Project N6527

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	30	14	26	7	10	11	7
002	BH1.2	30	14	26	7	10	11	7
003	BH2.1	30	14	26	7	10	11	7
004	BH2.2	30	14	26	7	10	11	7
005	BH3.1	30	14	26	7	10	11	7
006	BH3.2	30	14	26	7	10	11	7
007	BH4.1	30	14	26	7	10	11	7
008	BH4.2	30	14	26	7	10	11	7
009	BH5.1	30	14	26	7	10	11	7
010	BH5.2	30	14	26	7	10	11	7
011	BH6.1	30	14	26	7	10	11	7
012	BH6.2	30	14	26	7	10	11	7
013	BH7.1	30	14	26	7	10	11	7
014	BH7.2	30	14	26	7	10	11	7
015	BH8.1	30	14	26	7	10	11	7
016	BH8.2	30	14	26	7	10	11	7
017	Duplicate	30	14	26	7	10	11	7
018	TS	-	-	-	-	-	11	-
019	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.



CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N6527**

SUMMARY OF ANALYSIS

No.	Sample ID	Fibre Identification in soil	Gravimetric Determination of Asbestos in Soil	Mercury in Soil	Moisture Content
001	BH1.1	2	9	1	1
002	BH1.2	-	-	1	1
003	BH2.1	2	9	1	1
004	BH2.2	-	-	1	1
005	BH3.1	2	9	1	1
006	BH3.2	-	-	1	1
007	BH4.1	2	9	1	1
008	BH4.2	-	-	1	1
009	BH5.1	2	9	1	1
010	BH5.2	-	-	1	1
011	BH6.1	2	9	1	1
012	BH6.2	-	-	1	1
013	BH7.1	2	9	1	1
014	BH7.2	-	-	1	1
015	BH8.1	2	9	1	1
016	BH8.2	-	-	1	1
017	Duplicate	-	-	1	1
019	TB	-	-	-	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.

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N6527**

SUMMARY OF ANALYSIS

No.	Sample ID	Conductivity and TDS by Calculation - Water	Dissolved Oxygen by Membrane Electrode	PAH (Polynuclear Aromatic Hydrocarbons) in Water	PCBs in Water	pH in water	TRH (Total Recoverable Hydrocarbons) in Water	VOCs in Water	Volatile Petroleum Hydrocarbons in Water
020	W1	2	2	22	11	1	9	11	7
021	DWS1	2	2	22	11	1	9	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.

CLIENT DETAILS

Client **NEO CONSULTING PTY LTD**

Project **N6527**

SUMMARY OF ANALYSIS

No.	Sample ID	Mercury (dissolved) in Water	Trace Metals (Dissolved) in Water by ICMS
020	W1	1	7
021	DWS1	1	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

LABORATORY DETAILS

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

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

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

Telephone +61 2 8594 0400  
 Facsimile +61 2 8594 0499  
 Email au.environmental.sydney@sgs.com

Project **N6527**  
 Order Number **N6527**  
 Samples 21

SGS Reference **SE246394 R0**  
 Date Received 24/4/2023  
 Date Reported 2/5/2023

COMMENTS

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

VPH - The Limit of Reporting (LOR) has been raised due to interferences from the sample matrix.  
 No respirable fibres detected in all soil samples using trace analysis technique.  
 Sample #9: Chrysotile asbestos found in approx 8x4x2mm cement sheet fragments x7.  
 Asbestos analysed by Approved Identifier Ravee Sivasubramaniam and Yusuf Kuthpudin

SIGNATORIES



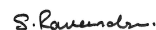
**Akheeqar BENIAMEEN**  
 Chemist



**Dong LIANG**  
 Metals/Inorganics Team Leader



**Ly Kim HA**  
 Organic Section Head



**Ravee SIVASUBRAMANIAM**  
 Hygiene Team Leader



**Shane MCDERMOTT**  
 Inorganic/Metals Chemist

VOC's in Soil [AN433] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
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 (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<b>0.2</b>

PARAMETER	UOM	LOR	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.012	24/4/2023 SE246394.013	24/4/2023 SE246394.014	24/4/2023 SE246394.015
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 (VOC)*	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1

PARAMETER	UOM	LOR	BH8.2	Duplicate	TS	TB
			SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.016	24/4/2023 SE246394.017	24/4/2023 SE246394.018	24/4/2023 SE246394.019
Benzene	mg/kg	0.1	<0.1	<0.1	[97%]	<0.1
Toluene	mg/kg	0.1	<0.1	<0.1	[122%]	<0.1
Ethylbenzene	mg/kg	0.1	<0.1	<0.1	[98%]	<0.1
m/p-xylene	mg/kg	0.2	<0.2	<0.2	[98%]	<0.2
o-xylene	mg/kg	0.1	<0.1	<0.1	[97%]	<0.1
Total Xylenes*	mg/kg	0.3	<0.3	<0.3	-	<0.3
Total BTEX*	mg/kg	0.6	<0.6	<0.6	-	<0.6
Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	<0.1

Volatile Petroleum Hydrocarbons in Soil [AN433] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
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	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.012	24/4/2023 SE246394.013	24/4/2023 SE246394.014	24/4/2023 SE246394.015
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	BH8.2	Duplicate
			SOIL	SOIL
			24/4/2023 SE246394.016	24/4/2023 SE246394.017
TRH C6-C9	mg/kg	20	<20	<20
Benzene (F0)	mg/kg	0.1	<0.1	<0.1
TRH C6-C10	mg/kg	25	<25	<25
TRH C6-C10 minus BTEX (F1)	mg/kg	25	<25	<25

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
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

PARAMETER	UOM	LOR	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.012	24/4/2023 SE246394.013	24/4/2023 SE246394.014	24/4/2023 SE246394.015
TRH C10-C14	mg/kg	20	<20	<20	<20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45	<45	<b>47</b>	<45
TRH C29-C36	mg/kg	45	<45	<45	<45	<b>95</b>	<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	<b>100</b>	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120	<120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110	<110	<b>140</b>	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	<210	<210	<210

TRH (Total Recoverable Hydrocarbons) in Soil [AN403] Tested: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH8.2	Duplicate
			SOIL - 24/4/2023 SE246394.016	SOIL - 24/4/2023 SE246394.017
TRH C10-C14	mg/kg	20	<20	<20
TRH C15-C28	mg/kg	45	<45	<45
TRH C29-C36	mg/kg	45	<45	<45
TRH C37-C40	mg/kg	100	<100	<100
TRH >C10-C16	mg/kg	25	<25	<25
TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25
TRH >C16-C34 (F3)	mg/kg	90	<90	<90
TRH >C34-C40 (F4)	mg/kg	120	<120	<120
TRH C10-C36 Total	mg/kg	110	<110	<110
TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210



PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<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	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
Naphthalene	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<b>0.1</b>
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	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<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

PAH (Polynuclear Aromatic Hydrocarbons) in Soil [AN420] Tested: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL - 24/4/2023 SE246394.011	SOIL - 24/4/2023 SE246394.012	SOIL - 24/4/2023 SE246394.013	SOIL - 24/4/2023 SE246394.014	SOIL - 24/4/2023 SE246394.015
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	<0.1	<0.1	<0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<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	BH8.2	Duplicate
			SOIL - 24/4/2023 SE246394.016	SOIL - 24/4/2023 SE246394.017
Naphthalene	mg/kg	0.1	<0.1	<0.1
2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1
Acenaphthylene	mg/kg	0.1	<0.1	<0.1
Acenaphthene	mg/kg	0.1	<0.1	<0.1
Fluorene	mg/kg	0.1	<0.1	<0.1
Phenanthrene	mg/kg	0.1	<0.1	<0.1
Anthracene	mg/kg	0.1	<0.1	<0.1
Fluoranthene	mg/kg	0.1	<0.1	<0.1
Pyrene	mg/kg	0.1	<0.1	<0.1
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	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	mg/kg	0.1	<0.1	<0.1
Benzo(ghi)perylene	mg/kg	0.1	<0.1	<0.1
Carcinogenic PAHs, BaP TEQ <LOR=0*	TEQ (mg/kg)	0.2	<0.2	<0.2
Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	<0.3	<0.3
Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	<0.2	<0.2
Total PAH (18)	mg/kg	0.8	<0.8	<0.8
Total PAH (NEPM/WHO 16)	mg/kg	0.8	<0.8	<0.8

OC Pesticides in Soil [AN420] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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 (gamma 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
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
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL - 24/4/2023 SE246394.006	SOIL - 24/4/2023 SE246394.007	SOIL - 24/4/2023 SE246394.008	SOIL - 24/4/2023 SE246394.009	SOIL - 24/4/2023 SE246394.010
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 (gamma 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
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
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1



OC Pesticides in Soil [AN420] Tested: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL - 24/4/2023 SE246394.011	SOIL - 24/4/2023 SE246394.012	SOIL - 24/4/2023 SE246394.013	SOIL - 24/4/2023 SE246394.014	SOIL - 24/4/2023 SE246394.015
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 (gamma 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
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
Total OC VIC EPA	mg/kg	1	<1	<1	<1	<1	<1

OC Pesticides in Soil [AN420] Tested: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH8.2	Duplicate
			SOIL - 24/4/2023 SE246394.016	SOIL - 24/4/2023 SE246394.017
Hexachlorobenzene (HCB)	mg/kg	0.1	<0.1	<0.1
Alpha BHC	mg/kg	0.1	<0.1	<0.1
Lindane (gamma BHC)	mg/kg	0.1	<0.1	<0.1
Heptachlor	mg/kg	0.1	<0.1	<0.1
Aldrin	mg/kg	0.1	<0.1	<0.1
Beta BHC	mg/kg	0.1	<0.1	<0.1
Delta BHC	mg/kg	0.1	<0.1	<0.1
Heptachlor epoxide	mg/kg	0.1	<0.1	<0.1
o,p'-DDE*	mg/kg	0.1	<0.1	<0.1
Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2
Gamma Chlordane	mg/kg	0.1	<0.1	<0.1
Alpha Chlordane	mg/kg	0.1	<0.1	<0.1
trans-Nonachlor	mg/kg	0.1	<0.1	<0.1
p,p'-DDE	mg/kg	0.1	<0.1	<0.1
Dieldrin	mg/kg	0.2	<0.2	<0.2
Endrin	mg/kg	0.2	<0.2	<0.2
o,p'-DDD*	mg/kg	0.1	<0.1	<0.1
o,p'-DDT*	mg/kg	0.1	<0.1	<0.1
Beta Endosulfan	mg/kg	0.2	<0.2	<0.2
p,p'-DDD	mg/kg	0.1	<0.1	<0.1
p,p'-DDT	mg/kg	0.1	<0.1	<0.1
Endosulfan sulphate	mg/kg	0.1	<0.1	<0.1
Endrin aldehyde	mg/kg	0.1	<0.1	<0.1
Methoxychlor	mg/kg	0.1	<0.1	<0.1
Endrin ketone	mg/kg	0.1	<0.1	<0.1
Isodrin	mg/kg	0.1	<0.1	<0.1
Mirex	mg/kg	0.1	<0.1	<0.1
Total CLP OC Pesticides	mg/kg	1	<1	<1
Total OC VIC EPA	mg/kg	1	<1	<1

OP Pesticides in Soil [AN420] Tested: 26/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
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	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
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	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.012	24/4/2023 SE246394.013	24/4/2023 SE246394.014	24/4/2023 SE246394.015
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: 26/4/2023 (continued)

PARAMETER	UOM	LOR	BH8.2	Duplicate
			SOIL - 24/4/2023 SE246394.016	SOIL - 24/4/2023 SE246394.017
Dichlorvos	mg/kg	0.5	<0.5	<0.5
Dimethoate	mg/kg	0.5	<0.5	<0.5
Diazinon (Dimpylate)	mg/kg	0.5	<0.5	<0.5
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	<0.2	<0.2
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	<0.2	<0.2
Azinphos-methyl (Guthion)	mg/kg	0.2	<0.2	<0.2
Total OP Pesticides*	mg/kg	1.7	<1.7	<1.7



Total Recoverable Elements in Soil/Waste Solids/Materials by ICPOES [AN040/AN320] Tested: 28/4/2023

PARAMETER	UOM	LOR	BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.002	24/4/2023 SE246394.003	24/4/2023 SE246394.004	24/4/2023 SE246394.005
Arsenic, As	mg/kg	1	1	1	2	<1	<1
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	2.5	3.3	2.9	1.4	2.3
Copper, Cu	mg/kg	0.5	3.3	1.5	4.4	0.7	1.8
Lead, Pb	mg/kg	1	8	3	15	2	5
Nickel, Ni	mg/kg	0.5	0.8	0.5	1.1	<0.5	0.9
Zinc, Zn	mg/kg	2	12	<2.0	33	<2.0	4.4

PARAMETER	UOM	LOR	BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.006	24/4/2023 SE246394.007	24/4/2023 SE246394.008	24/4/2023 SE246394.009	24/4/2023 SE246394.010
Arsenic, As	mg/kg	1	<1	3	<1	<1	6
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	3.0	2.8	1.5	2.6	14
Copper, Cu	mg/kg	0.5	0.8	12	1.2	1.9	5.9
Lead, Pb	mg/kg	1	2	4	2	4	6
Nickel, Ni	mg/kg	0.5	<0.5	1.2	<0.5	0.7	1.5
Zinc, Zn	mg/kg	2	<2.0	2.8	5.3	3.9	6.7

PARAMETER	UOM	LOR	BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.012	24/4/2023 SE246394.013	24/4/2023 SE246394.014	24/4/2023 SE246394.015
Arsenic, As	mg/kg	1	2	<1	2	1	2
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	5.2	9.0	6.2	9.5	22
Copper, Cu	mg/kg	0.5	9.2	12	2.5	8.9	11
Lead, Pb	mg/kg	1	5	3	4	9	6
Nickel, Ni	mg/kg	0.5	1.5	4.5	1.1	3.8	6.2
Zinc, Zn	mg/kg	2	5.1	14	3.0	18	19

PARAMETER	UOM	LOR	BH8.2	Duplicate
			SOIL	SOIL
			24/4/2023 SE246394.016	24/4/2023 SE246394.017
Arsenic, As	mg/kg	1	1	5
Cadmium, Cd	mg/kg	0.3	<0.3	<0.3
Chromium, Cr	mg/kg	0.5	4.6	5.3
Copper, Cu	mg/kg	0.5	2.1	1.7
Lead, Pb	mg/kg	1	3	3
Nickel, Ni	mg/kg	0.5	0.8	0.5
Zinc, Zn	mg/kg	2	2.8	2.1

Mercury in Soil [AN312] Tested: 28/4/2023

			BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.001	SE246394.002	SE246394.003	SE246394.004	SE246394.005
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.006	SE246394.007	SE246394.008	SE246394.009	SE246394.010
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.011	SE246394.012	SE246394.013	SE246394.014	SE246394.015
Mercury	mg/kg	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

			BH8.2	Duplicate
			SOIL	SOIL
			-	-
			24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.016	SE246394.017
Mercury	mg/kg	0.05	<0.05	<0.05

Moisture Content [AN002] Tested: 26/4/2023

			BH1.1	BH1.2	BH2.1	BH2.2	BH3.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.001	SE246394.002	SE246394.003	SE246394.004	SE246394.005
% Moisture	%w/w	1	<b>7.5</b>	<b>11.1</b>	<b>7.4</b>	<b>9.4</b>	<b>6.7</b>

			BH3.2	BH4.1	BH4.2	BH5.1	BH5.2
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.006	SE246394.007	SE246394.008	SE246394.009	SE246394.010
% Moisture	%w/w	1	<b>7.6</b>	<b>6.1</b>	<b>8.1</b>	<b>8.5</b>	<b>15.5</b>

			BH6.1	BH6.2	BH7.1	BH7.2	BH8.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			-	-	-	-	-
			24/4/2023	24/4/2023	24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.011	SE246394.012	SE246394.013	SE246394.014	SE246394.015
% Moisture	%w/w	1	<b>6.7</b>	<b>9.2</b>	<b>9.6</b>	<b>11.9</b>	<b>11.4</b>

			BH8.2	Duplicate	TB
			SOIL	SOIL	SOIL
			-	-	-
			24/4/2023	24/4/2023	24/4/2023
PARAMETER	UOM	LOR	SE246394.016	SE246394.017	SE246394.019
% Moisture	%w/w	1	<b>12.0</b>	<b>14.6</b>	<1.0

Fibre Identification in soil [AS4964/AN602] Tested: 28/4/2023

PARAMETER	UOM	LOR	BH1.1	BH2.1	BH3.1	BH4.1	BH5.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			- 24/4/2023 SE246394.001	- 24/4/2023 SE246394.003	- 24/4/2023 SE246394.005	- 24/4/2023 SE246394.007	- 24/4/2023 SE246394.009
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	BH6.1	BH7.1	BH8.1
			SOIL	SOIL	SOIL
			- 24/4/2023 SE246394.011	- 24/4/2023 SE246394.013	- 24/4/2023 SE246394.015
Asbestos Detected	No unit	-	No	No	No
Estimated Fibres*	%w/w	0.01	<0.01	<0.01	<0.01

Gravimetric Determination of Asbestos in Soil [AN605] Tested: 28/4/2023

PARAMETER	UOM	LOR	BH1.1	BH2.1	BH3.1	BH4.1	BH5.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.003	24/4/2023 SE246394.005	24/4/2023 SE246394.007	24/4/2023 SE246394.009
Total Sample Weight*	g	1	<b>917</b>	<b>867</b>	<b>930</b>	<b>952</b>	<b>881</b>
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<b>0.0350</b>
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<b>0.004</b>
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<b>0.004</b>
Fibre Type*	No unit	-	NAD	NAD	NAD	NAD	Chrysotile

PARAMETER	UOM	LOR	BH6.1	BH7.1	BH8.1
			SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.013	24/4/2023 SE246394.015
Total Sample Weight*	g	1	<b>963</b>	<b>860</b>	<b>844</b>
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	NAD	NAD	NAD



VOCs in Water [AN433] Tested: 28/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Benzene	µg/L	0.5	<b>1100</b>	<b>1100</b>
Toluene	µg/L	0.5	<b>93</b>	<b>99</b>
Ethylbenzene	µg/L	0.5	<b>920</b>	<b>980</b>
m/p-xylene	µg/L	1	<b>840</b>	<b>860</b>
o-xylene	µg/L	0.5	<b>160</b>	<b>160</b>
Total Xylenes	µg/L	1.5	<b>1000</b>	<b>1000</b>
Total BTEX	µg/L	3	<b>3100</b>	<b>3200</b>
Naphthalene (VOC)*	µg/L	0.5	<b>30</b>	<b>79</b>

Volatile Petroleum Hydrocarbons in Water [AN433] Tested: 28/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
TRH C6-C9	µg/L	40	<b>8500</b>	<b>8700</b>
Benzene (F0)	µg/L	0.5	<b>1100</b>	<b>1100</b>
TRH C6-C10	µg/L	50	<b>13000</b>	<b>14000</b>
TRH C6-C10 minus BTEX (F1)	µg/L	50	<b>10000</b>	<b>10000</b>

TRH (Total Recoverable Hydrocarbons) in Water [AN403] Tested: 26/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
TRH C10-C14	µg/L	50	<b>2700</b>	<b>2700</b>
TRH C15-C28	µg/L	200	<b>490</b>	<b>530</b>
TRH C29-C36	µg/L	200	<200	<200
TRH C37-C40	µg/L	200	<200	<200
TRH >C10-C16	µg/L	60	<b>2600</b>	<b>2500</b>
TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<b>2500</b>	<b>2500</b>
TRH >C16-C34 (F3)	µg/L	500	<500	<500
TRH >C34-C40 (F4)	µg/L	500	<500	<500
TRH C10-C40	µg/L	320	<b>3200</b>	<b>3200</b>

PAH (Polynuclear Aromatic Hydrocarbons) in Water [AN420] Tested: 26/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Naphthalene	µg/L	0.1	<b>3.1</b>	<b>5.6</b>
2-methylnaphthalene	µg/L	0.1	<b>26</b>	<b>33</b>
1-methylnaphthalene	µg/L	0.1	<b>37</b>	<b>42</b>
Acenaphthylene	µg/L	0.1	<b>0.4</b>	<b>0.4</b>
Acenaphthene	µg/L	0.1	<b>2.2</b>	<b>1.8</b>
Fluorene	µg/L	0.1	<b>1.1</b>	<b>0.9</b>
Phenanthrene	µg/L	0.1	<b>0.8</b>	<b>0.6</b>
Anthracene	µg/L	0.1	<0.1	<0.1
Fluoranthene	µg/L	0.1	<0.1	<0.1
Pyrene	µg/L	0.1	<0.1	<0.1
Benzo(a)anthracene	µg/L	0.1	<0.1	<0.1
Chrysene	µg/L	0.1	<0.1	<0.1
Benzo(b&j)fluoranthene	µg/L	0.1	<0.1	<0.1
Benzo(k)fluoranthene	µg/L	0.1	<0.1	<0.1
Benzo(a)pyrene	µg/L	0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.1	<0.1	<0.1
Dibenzo(ah)anthracene	µg/L	0.1	<0.1	<0.1
Benzo(ghi)perylene	µg/L	0.1	<0.1	<0.1
Total PAH (18)	µg/L	1	<b>71</b>	<b>84</b>

PCBs in Water [AN420] Tested: 26/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Arochlor 1016	µg/L	1	<1	<1
Arochlor 1221	µg/L	1	<1	<1
Arochlor 1232	µg/L	1	<1	<1
Arochlor 1242	µg/L	1	<1	<1
Arochlor 1248	µg/L	1	<1	<1
Arochlor 1254	µg/L	1	<1	<1
Arochlor 1260	µg/L	1	<1	<1
Arochlor 1262	µg/L	1	<1	<1
Arochlor 1268	µg/L	1	<1	<1
Total Arochlors*	µg/L	5	<5	<5



pH in water [AN101] Tested: 24/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
pH**	No unit	-	<b>6.1</b>	<b>6.1</b>

Conductivity and TDS by Calculation - Water [AN106] Tested: 24/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Conductivity @ 25 C	µS/cm	2	<b>720</b>	<b>710</b>
Salinity*	mg/L	2	<b>470</b>	<b>460</b>

Dissolved Oxygen by Membrane Electrode [AN176] Tested: 24/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Temperature*	°C	-	<b>13.7</b>	<b>14.3</b>
Dissolved Oxygen**	mg/L	0.5	<b>4.8</b>	<b>5.2</b>

Trace Metals (Dissolved) in Water by ICPMS [AN318] Tested: 28/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Arsenic	µg/L	1	<b>4</b>	<b>4</b>
Cadmium	µg/L	0.1	<0.1	<0.1
Chromium	µg/L	1	<1	<1
Copper	µg/L	1	<1	<1
Lead	µg/L	1	<b>2</b>	<b>2</b>
Nickel	µg/L	1	<b>1</b>	<b>1</b>
Zinc	µg/L	5	<5	<5

Mercury (dissolved) in Water [AN311(Perth)/AN312] Tested: 28/4/2023

PARAMETER	UOM	LOR	W1	DWS1
			WATER - 24/4/2023 SE246394.020	WATER - 24/4/2023 SE246394.021
Mercury	mg/L	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 ASS or ICP as per USEPA Method 200.8.
- AN101** pH in Soil Sludge Sediment and Water: pH is measured electrometrically using a combination electrode (glass plus reference electrode) and is calibrated against 3 buffers purchased commercially. For soils, an extract with water is made at a ratio of 1:5 and the pH determined and reported on the extract. Reference APHA 4500-H+.
- AN106** Conductivity and TDS by Calculation: Conductivity is measured by meter with temperature compensation and is calibrated against a standard solution of potassium chloride. Conductivity is generally reported as µmhos/cm or µS/cm @ 25°C. For soils, an extract with water is made at a ratio of 1:5 and the EC determined and reported on the extract, or calculated back to the as-received sample. Total Dissolved Salts can be estimated from conductivity using a conversion factor, which for natural waters, is in the range 0.55 to 0.75. SGS use 0.6. Reference APHA 2510 B.
- AN106** Salinity may be calculated in terms of NaCl from the sample conductivity. This assumes all soluble salts present, measured by the conductivity, are present as NaCl.
- AN176** Dissolved Oxygen: Dissolved oxygen is measured directly using an oxygen permeable membrane electrode and meter. Under steady state conditions the current is directly proportional to the DO concentration. Samples with no headspace are required for this analysis and if headspace is observed this will be recorded on the report. Internal Reference is AN176 based on APHA 4500-O, C and G.
- 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).

<p><b>AN433</b></p>	<p>VOCs and C6-C9 Hydrocarbons by GC-MS P&amp;T: VOC's are volatile organic compounds. The sample is presented to a gas chromatograph via a purge and trap (P&amp;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.</p>
<p><b>AN602/AS4964</b></p>	<p>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.</p>
<p><b>AN602/AS4964</b></p>	<p>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.</p>
<p><b>AN602/AS4964</b></p>	<p>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."</p>
<p><b>AN602/AS4964</b></p>	<p>The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (&lt;0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-</p> <ul style="list-style-type: none"> <li>(a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres);</li> <li>(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</li> <li>(c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.</li> </ul>
<p><b>AN605</b></p>	<p>This technique gravimetrically determines the mass of Bonded Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight. Any fibrous asbestos (FA) found in this fraction will be added to the 2-7mm fraction and its mass recorded there.</p>
<p><b>AN605</b></p>	<p>This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free/respirable fibres which are only observed by standard trace analysis as per AN602.</p>
<p><b>AN605</b></p>	<p>Bonded asbestos containing material (Bonded ACM) comprises asbestos-containing-material which is sound in condition. Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material. Asbestos fines (AF) includes free fibres, small fibre bundles and also small fragments of bonded ACM that passes through a 7mm sieve - which implies that the bonded ACM fragments have a substantial degree of damage which increases the potential for fibre release.</p>
<p><b>AN-605</b></p>	<p>Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009 and NEPM 1999 (2013) schedule B1 section 4..</p>

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:

- 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](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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 Order Number **N6527**  
 Samples 21

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SGS Reference **SE246394 R0**  
 Date Received 24 Apr 2023  
 Date Reported 02 May 2023

### 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	VOCs in Water	1 item
	Volatile Petroleum Hydrocarbons in Water	2 items

### SAMPLE SUMMARY

Sample counts by matrix	19 Soil, 2 Water	Type of documentation received	COC
Date documentation received	24/4/2023	Samples received in good order	Yes
Samples received without headspace	Yes	Sample temperature upon receipt	19.4°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 sampled date is not supplied then compliance with criteria cannot be determined. If the received date is after one or both due dates then holding time will fail by default.

### Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277625	24 Apr 2023	24 Apr 2023	22 May 2023	24 Apr 2023	22 May 2023	24 Apr 2023
DWS1	SE246394.021	LB277625	24 Apr 2023	24 Apr 2023	22 May 2023	24 Apr 2023	22 May 2023	24 Apr 2023

### Dissolved Oxygen by Membrane Electrode

Method: ME-(AU)-[ENV]AN176

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277628	24 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023
DWS1	SE246394.021	LB277628	24 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023

### Fibre Identification in soil

Method: ME-(AU)-[ENV]AS4964/AN602

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH2.1	SE246394.003	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH3.1	SE246394.005	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH4.1	SE246394.007	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH5.1	SE246394.009	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH6.1	SE246394.011	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH7.1	SE246394.013	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH7.2	SE246394.014	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH8.1	SE246394.015	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023
BH8.2	SE246394.016	LB277869	24 Apr 2023	24 Apr 2023	23 Apr 2024	28 Apr 2023	23 Apr 2024	02 May 2023

### Gravimetric Determination of Asbestos in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH2.1	SE246394.003	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH3.1	SE246394.005	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH4.1	SE246394.007	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH5.1	SE246394.009	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH6.1	SE246394.011	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH7.1	SE246394.013	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH7.2	SE246394.014	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH8.1	SE246394.015	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023
BH8.2	SE246394.016	LB277869	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	02 May 2023

### 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
W1	SE246394.020	LB277706	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	28 Apr 2023
DWS1	SE246394.021	LB277706	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	28 Apr 2023

### Mercury in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH1.2	SE246394.002	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH2.1	SE246394.003	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH2.2	SE246394.004	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH3.1	SE246394.005	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH3.2	SE246394.006	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH4.1	SE246394.007	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH4.2	SE246394.008	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH5.1	SE246394.009	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH5.2	SE246394.010	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH6.1	SE246394.011	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH6.2	SE246394.012	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH7.1	SE246394.013	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH7.2	SE246394.014	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH8.1	SE246394.015	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
BH8.2	SE246394.016	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023
Duplicate	SE246394.017	LB277993	24 Apr 2023	24 Apr 2023	22 May 2023	28 Apr 2023	22 May 2023	01 May 2023

### Moisture Content

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH1.2	SE246394.002	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023



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

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

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

### Moisture Content (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2.1	SE246394.003	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH2.2	SE246394.004	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH3.1	SE246394.005	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH3.2	SE246394.006	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH4.1	SE246394.007	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH4.2	SE246394.008	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH5.1	SE246394.009	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH5.2	SE246394.010	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH6.1	SE246394.011	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH6.2	SE246394.012	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH7.1	SE246394.013	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH7.2	SE246394.014	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH8.1	SE246394.015	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
BH8.2	SE246394.016	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
Duplicate	SE246394.017	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023
TB	SE246394.019	LB277780	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	01 May 2023	28 Apr 2023

### OC Pesticides in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH1.2	SE246394.002	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.1	SE246394.003	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.2	SE246394.004	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH3.1	SE246394.005	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH3.2	SE246394.006	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH4.1	SE246394.007	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH4.2	SE246394.008	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH5.1	SE246394.009	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH5.2	SE246394.010	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH6.1	SE246394.011	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH6.2	SE246394.012	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH7.1	SE246394.013	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH7.2	SE246394.014	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH8.1	SE246394.015	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
BH8.2	SE246394.016	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
Duplicate	SE246394.017	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023

### OP Pesticides in Soil

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH1.2	SE246394.002	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.1	SE246394.003	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.2	SE246394.004	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH3.1	SE246394.005	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH3.2	SE246394.006	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.1	SE246394.007	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.2	SE246394.008	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.1	SE246394.009	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.2	SE246394.010	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.1	SE246394.011	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.2	SE246394.012	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.1	SE246394.013	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.2	SE246394.014	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.1	SE246394.015	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.2	SE246394.016	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
Duplicate	SE246394.017	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023

### 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
BH1.1	SE246394.001	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH1.2	SE246394.002	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023

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

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

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

### PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH2.1	SE246394.003	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.2	SE246394.004	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH3.1	SE246394.005	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH3.2	SE246394.006	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.1	SE246394.007	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.2	SE246394.008	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.1	SE246394.009	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.2	SE246394.010	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.1	SE246394.011	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.2	SE246394.012	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.1	SE246394.013	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.2	SE246394.014	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.1	SE246394.015	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.2	SE246394.016	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
Duplicate	SE246394.017	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023

### 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
W1	SE246394.020	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	02 May 2023
DWS1	SE246394.021	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	02 May 2023

### PCBs in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	02 May 2023
DWS1	SE246394.021	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	02 May 2023

### pH in water

Method: ME-(AU)-[ENV]AN101

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277625	24 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023
DWS1	SE246394.021	LB277625	24 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023	25 Apr 2023	24 Apr 2023

### 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
BH1.1	SE246394.001	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH1.2	SE246394.002	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH2.1	SE246394.003	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH2.2	SE246394.004	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH3.1	SE246394.005	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH3.2	SE246394.006	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH4.1	SE246394.007	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH4.2	SE246394.008	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH5.1	SE246394.009	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH5.2	SE246394.010	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH6.1	SE246394.011	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH6.2	SE246394.012	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH7.1	SE246394.013	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH7.2	SE246394.014	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH8.1	SE246394.015	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
BH8.2	SE246394.016	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023
Duplicate	SE246394.017	LB277998	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	28 Apr 2023

### 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
W1	SE246394.020	LB277942	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	01 May 2023
DWS1	SE246394.021	LB277942	24 Apr 2023	24 Apr 2023	21 Oct 2023	28 Apr 2023	21 Oct 2023	01 May 2023

### 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	SE246394.001	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH1.2	SE246394.002	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.1	SE246394.003	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH2.2	SE246394.004	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH3.1	SE246394.005	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023

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

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

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

### TRH (Total Recoverable Hydrocarbons) in Soil (continued)

Method: ME-(AU)-IENVJAN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH3.2	SE246394.006	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.1	SE246394.007	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH4.2	SE246394.008	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.1	SE246394.009	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH5.2	SE246394.010	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.1	SE246394.011	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH6.2	SE246394.012	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.1	SE246394.013	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH7.2	SE246394.014	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.1	SE246394.015	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
BH8.2	SE246394.016	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023
Duplicate	SE246394.017	LB277778	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	05 Jun 2023	28 Apr 2023

### TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-IENVJAN403

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023
DWS1	SE246394.021	LB277672	24 Apr 2023	24 Apr 2023	01 May 2023	26 Apr 2023	05 Jun 2023	01 May 2023

### VOC's in Soil

Method: ME-(AU)-IENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH1.2	SE246394.002	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH2.1	SE246394.003	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH2.2	SE246394.004	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH3.1	SE246394.005	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH3.2	SE246394.006	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH4.1	SE246394.007	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH4.2	SE246394.008	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH5.1	SE246394.009	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH5.2	SE246394.010	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH6.1	SE246394.011	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH6.2	SE246394.012	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH7.1	SE246394.013	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH7.2	SE246394.014	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH8.1	SE246394.015	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH8.2	SE246394.016	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
Duplicate	SE246394.017	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
TS	SE246394.018	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
TB	SE246394.019	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023

### VOCs in Water

Method: ME-(AU)-IENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277948	24 Apr 2023	24 Apr 2023	08 May 2023	28 Apr 2023	08 May 2023	01 May 2023
DWS1	SE246394.021	LB277948	24 Apr 2023	24 Apr 2023	08 May 2023	28 Apr 2023	08 May 2023	01 May 2023

### Volatile Petroleum Hydrocarbons in Soil

Method: ME-(AU)-IENVJAN433

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH1.1	SE246394.001	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH1.2	SE246394.002	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH2.1	SE246394.003	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH2.2	SE246394.004	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH3.1	SE246394.005	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH3.2	SE246394.006	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH4.1	SE246394.007	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH4.2	SE246394.008	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH5.1	SE246394.009	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH5.2	SE246394.010	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH6.1	SE246394.011	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH6.2	SE246394.012	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH7.1	SE246394.013	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH7.2	SE246394.014	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
BH8.1	SE246394.015	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023

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

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

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

### Volatile Petroleum Hydrocarbons in Soil (continued)

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
BH8.2	SE246394.016	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
Duplicate	SE246394.017	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
TS	SE246394.018	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023
TB	SE246394.019	LB277779	24 Apr 2023	24 Apr 2023	08 May 2023	26 Apr 2023	08 May 2023	28 Apr 2023

### Volatile Petroleum Hydrocarbons in Water

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

Sample Name	Sample No.	QC Ref	Sampled	Received	Extraction Due	Extracted	Analysis Due	Analysed
W1	SE246394.020	LB277948	24 Apr 2023	24 Apr 2023	08 May 2023	28 Apr 2023	08 May 2023	01 May 2023
DWS1	SE246394.021	LB277948	24 Apr 2023	24 Apr 2023	08 May 2023	28 Apr 2023	08 May 2023	01 May 2023

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	SE246394.001	%	60 - 130%	107
	BH1.2	SE246394.002	%	60 - 130%	104
	BH2.1	SE246394.003	%	60 - 130%	111
	BH2.2	SE246394.004	%	60 - 130%	93
	BH3.1	SE246394.005	%	60 - 130%	95
	BH3.2	SE246394.006	%	60 - 130%	110
	BH4.1	SE246394.007	%	60 - 130%	106
	BH4.2	SE246394.008	%	60 - 130%	96
	BH5.1	SE246394.009	%	60 - 130%	111
	BH5.2	SE246394.010	%	60 - 130%	99
	BH6.1	SE246394.011	%	60 - 130%	93
	BH6.2	SE246394.012	%	60 - 130%	99
	BH7.1	SE246394.013	%	60 - 130%	97
	BH7.2	SE246394.014	%	60 - 130%	97
	BH8.1	SE246394.015	%	60 - 130%	98
	BH8.2	SE246394.016	%	60 - 130%	103
	Duplicate	SE246394.017	%	60 - 130%	96

OP Pesticides in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	BH1.1	SE246394.001	%	60 - 130%	77
	BH1.2	SE246394.002	%	60 - 130%	80
	BH2.1	SE246394.003	%	60 - 130%	77
	BH2.2	SE246394.004	%	60 - 130%	76
	BH3.1	SE246394.005	%	60 - 130%	77
	BH3.2	SE246394.006	%	60 - 130%	77
	BH4.1	SE246394.007	%	60 - 130%	77
	BH4.2	SE246394.008	%	60 - 130%	76
	BH5.1	SE246394.009	%	60 - 130%	79
	BH5.2	SE246394.010	%	60 - 130%	84
	BH6.1	SE246394.011	%	60 - 130%	76
	BH6.2	SE246394.012	%	60 - 130%	78
	BH7.1	SE246394.013	%	60 - 130%	79
	BH7.2	SE246394.014	%	60 - 130%	79
	BH8.1	SE246394.015	%	60 - 130%	76
	BH8.2	SE246394.016	%	60 - 130%	81
	Duplicate	SE246394.017	%	60 - 130%	75
d14-p-terphenyl (Surrogate)	BH1.1	SE246394.001	%	60 - 130%	95
	BH1.2	SE246394.002	%	60 - 130%	96
	BH2.1	SE246394.003	%	60 - 130%	92
	BH2.2	SE246394.004	%	60 - 130%	92
	BH3.1	SE246394.005	%	60 - 130%	93
	BH3.2	SE246394.006	%	60 - 130%	94
	BH4.1	SE246394.007	%	60 - 130%	94
	BH4.2	SE246394.008	%	60 - 130%	94
	BH5.1	SE246394.009	%	60 - 130%	96
	BH5.2	SE246394.010	%	60 - 130%	97
	BH6.1	SE246394.011	%	60 - 130%	94
	BH6.2	SE246394.012	%	60 - 130%	93
	BH7.1	SE246394.013	%	60 - 130%	96
	BH7.2	SE246394.014	%	60 - 130%	95
	BH8.1	SE246394.015	%	60 - 130%	95
	BH8.2	SE246394.016	%	60 - 130%	91
	Duplicate	SE246394.017	%	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	SE246394.001	%	70 - 130%	77
	BH1.2	SE246394.002	%	70 - 130%	80
	BH2.1	SE246394.003	%	70 - 130%	77
	BH2.2	SE246394.004	%	70 - 130%	76
	BH3.1	SE246394.005	%	70 - 130%	77

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 %	
2-fluorobiphenyl (Surrogate)	BH3.2	SE246394.006	%	70 - 130%	77	
	BH4.1	SE246394.007	%	70 - 130%	77	
	BH4.2	SE246394.008	%	70 - 130%	76	
	BH5.1	SE246394.009	%	70 - 130%	79	
	BH5.2	SE246394.010	%	70 - 130%	84	
	BH6.1	SE246394.011	%	70 - 130%	76	
	BH6.2	SE246394.012	%	70 - 130%	78	
	BH7.1	SE246394.013	%	70 - 130%	79	
	BH7.2	SE246394.014	%	70 - 130%	79	
	BH8.1	SE246394.015	%	70 - 130%	76	
	BH8.2	SE246394.016	%	70 - 130%	81	
	Duplicate	SE246394.017	%	70 - 130%	75	
	d14-p-terphenyl (Surrogate)	BH1.1	SE246394.001	%	70 - 130%	95
		BH1.2	SE246394.002	%	70 - 130%	96
BH2.1		SE246394.003	%	70 - 130%	92	
BH2.2		SE246394.004	%	70 - 130%	92	
BH3.1		SE246394.005	%	70 - 130%	93	
BH3.2		SE246394.006	%	70 - 130%	94	
BH4.1		SE246394.007	%	70 - 130%	94	
BH4.2		SE246394.008	%	70 - 130%	94	
BH5.1		SE246394.009	%	70 - 130%	96	
BH5.2		SE246394.010	%	70 - 130%	97	
BH6.1		SE246394.011	%	70 - 130%	94	
BH6.2		SE246394.012	%	70 - 130%	93	
BH7.1		SE246394.013	%	70 - 130%	96	
BH7.2		SE246394.014	%	70 - 130%	95	
d5-nitrobenzene (Surrogate)	BH1.1	SE246394.001	%	70 - 130%	92	
	BH1.2	SE246394.002	%	70 - 130%	90	
	BH2.1	SE246394.003	%	70 - 130%	89	
	BH2.2	SE246394.004	%	70 - 130%	89	
	BH3.1	SE246394.005	%	70 - 130%	87	
	BH3.2	SE246394.006	%	70 - 130%	86	
	BH4.1	SE246394.007	%	70 - 130%	89	
	BH4.2	SE246394.008	%	70 - 130%	86	
	BH5.1	SE246394.009	%	70 - 130%	91	
	BH5.2	SE246394.010	%	70 - 130%	89	
	BH6.1	SE246394.011	%	70 - 130%	88	
	BH6.2	SE246394.012	%	70 - 130%	90	
	BH7.1	SE246394.013	%	70 - 130%	87	
	BH7.2	SE246394.014	%	70 - 130%	91	
d5-nitrobenzene (Surrogate)	BH8.1	SE246394.015	%	70 - 130%	93	
	BH8.2	SE246394.016	%	70 - 130%	89	
	Duplicate	SE246394.017	%	70 - 130%	89	

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
2-fluorobiphenyl (Surrogate)	W1	SE246394.020	%	40 - 130%	79
	DWS1	SE246394.021	%	40 - 130%	70
d14-p-terphenyl (Surrogate)	W1	SE246394.020	%	40 - 130%	100
	DWS1	SE246394.021	%	40 - 130%	89
d5-nitrobenzene (Surrogate)	W1	SE246394.020	%	40 - 130%	93
	DWS1	SE246394.021	%	40 - 130%	81

PCBs in Water

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
TCMX (Surrogate)	W1	SE246394.020	%	40 - 130%	46
	DWS1	SE246394.021	%	40 - 130%	62



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

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	BH1.1	SE246394.001	%	60 - 130%	82
	BH1.2	SE246394.002	%	60 - 130%	78
	BH2.1	SE246394.003	%	60 - 130%	81
	BH2.2	SE246394.004	%	60 - 130%	78
	BH3.1	SE246394.005	%	60 - 130%	76
	BH3.2	SE246394.006	%	60 - 130%	82
	BH4.1	SE246394.007	%	60 - 130%	79
	BH4.2	SE246394.008	%	60 - 130%	78
	BH5.1	SE246394.009	%	60 - 130%	78
	BH5.2	SE246394.010	%	60 - 130%	85
	BH6.1	SE246394.011	%	60 - 130%	78
	BH6.2	SE246394.012	%	60 - 130%	77
	BH7.1	SE246394.013	%	60 - 130%	78
	BH7.2	SE246394.014	%	60 - 130%	81
	BH8.1	SE246394.015	%	60 - 130%	75
	BH8.2	SE246394.016	%	60 - 130%	78
	Duplicate	SE246394.017	%	60 - 130%	77
	TS	SE246394.018	%	60 - 130%	87
	TB	SE246394.019	%	60 - 130%	82
	d4-1,2-dichloroethane (Surrogate)	BH1.1	SE246394.001	%	60 - 130%
BH1.2		SE246394.002	%	60 - 130%	77
BH2.1		SE246394.003	%	60 - 130%	82
BH2.2		SE246394.004	%	60 - 130%	78
BH3.1		SE246394.005	%	60 - 130%	79
BH3.2		SE246394.006	%	60 - 130%	84
BH4.1		SE246394.007	%	60 - 130%	104
BH4.2		SE246394.008	%	60 - 130%	82
BH5.1		SE246394.009	%	60 - 130%	82
BH5.2		SE246394.010	%	60 - 130%	78
BH6.1		SE246394.011	%	60 - 130%	78
BH6.2		SE246394.012	%	60 - 130%	83
BH7.1		SE246394.013	%	60 - 130%	79
BH7.2		SE246394.014	%	60 - 130%	77
BH8.1		SE246394.015	%	60 - 130%	69
BH8.2		SE246394.016	%	60 - 130%	82
Duplicate		SE246394.017	%	60 - 130%	85
TS		SE246394.018	%	60 - 130%	84
TB		SE246394.019	%	60 - 130%	86
d8-toluene (Surrogate)		BH1.1	SE246394.001	%	60 - 130%
	BH1.2	SE246394.002	%	60 - 130%	82
	BH2.1	SE246394.003	%	60 - 130%	87
	BH2.2	SE246394.004	%	60 - 130%	82
	BH3.1	SE246394.005	%	60 - 130%	84
	BH3.2	SE246394.006	%	60 - 130%	88
	BH4.1	SE246394.007	%	60 - 130%	86
	BH4.2	SE246394.008	%	60 - 130%	86
	BH5.1	SE246394.009	%	60 - 130%	86
	BH5.2	SE246394.010	%	60 - 130%	92
	BH6.1	SE246394.011	%	60 - 130%	84
	BH6.2	SE246394.012	%	60 - 130%	84
	BH7.1	SE246394.013	%	60 - 130%	84
	BH7.2	SE246394.014	%	60 - 130%	88
	BH8.1	SE246394.015	%	60 - 130%	80
	BH8.2	SE246394.016	%	60 - 130%	85
	Duplicate	SE246394.017	%	60 - 130%	68
	TS	SE246394.018	%	60 - 130%	86
	TB	SE246394.019	%	60 - 130%	91

VOCs in Water

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.

VOCs in Water (continued)

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	W1	SE246394.020	%	40 - 130%	111
	DWS1	SE246394.021	%	40 - 130%	110
d4-1,2-dichloroethane (Surrogate)	W1	SE246394.020	%	40 - 130%	103
	DWS1	SE246394.021	%	40 - 130%	100
d8-toluene (Surrogate)	W1	SE246394.020	%	40 - 130%	117
	DWS1	SE246394.021	%	40 - 130%	120

Volatile Petroleum Hydrocarbons in Soil

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %	
Bromofluorobenzene (Surrogate)	BH1.1	SE246394.001	%	60 - 130%	82	
	BH1.2	SE246394.002	%	60 - 130%	78	
	BH2.1	SE246394.003	%	60 - 130%	81	
	BH2.2	SE246394.004	%	60 - 130%	78	
	BH3.1	SE246394.005	%	60 - 130%	76	
	BH3.2	SE246394.006	%	60 - 130%	82	
	BH4.1	SE246394.007	%	60 - 130%	79	
	BH4.2	SE246394.008	%	60 - 130%	78	
	BH5.1	SE246394.009	%	60 - 130%	78	
	BH5.2	SE246394.010	%	60 - 130%	85	
	BH6.1	SE246394.011	%	60 - 130%	78	
	BH6.2	SE246394.012	%	60 - 130%	77	
	BH7.1	SE246394.013	%	60 - 130%	78	
	BH7.2	SE246394.014	%	60 - 130%	81	
	BH8.1	SE246394.015	%	60 - 130%	75	
	BH8.2	SE246394.016	%	60 - 130%	78	
		Duplicate	SE246394.017	%	60 - 130%	77
	d4-1,2-dichloroethane (Surrogate)	BH1.1	SE246394.001	%	60 - 130%	77
BH1.2		SE246394.002	%	60 - 130%	77	
BH2.1		SE246394.003	%	60 - 130%	82	
BH2.2		SE246394.004	%	60 - 130%	78	
BH3.1		SE246394.005	%	60 - 130%	79	
BH3.2		SE246394.006	%	60 - 130%	84	
BH4.1		SE246394.007	%	60 - 130%	104	
BH4.2		SE246394.008	%	60 - 130%	82	
BH5.1		SE246394.009	%	60 - 130%	82	
BH5.2		SE246394.010	%	60 - 130%	78	
BH6.1		SE246394.011	%	60 - 130%	78	
BH6.2		SE246394.012	%	60 - 130%	83	
BH7.1		SE246394.013	%	60 - 130%	79	
BH7.2		SE246394.014	%	60 - 130%	77	
BH8.1		SE246394.015	%	60 - 130%	69	
BH8.2		SE246394.016	%	60 - 130%	82	
		Duplicate	SE246394.017	%	60 - 130%	85
d8-toluene (Surrogate)		BH1.1	SE246394.001	%	60 - 130%	88
	BH1.2	SE246394.002	%	60 - 130%	82	
	BH2.1	SE246394.003	%	60 - 130%	87	
	BH2.2	SE246394.004	%	60 - 130%	82	
	BH3.1	SE246394.005	%	60 - 130%	84	
	BH3.2	SE246394.006	%	60 - 130%	88	
	BH4.1	SE246394.007	%	60 - 130%	86	
	BH4.2	SE246394.008	%	60 - 130%	86	
	BH5.1	SE246394.009	%	60 - 130%	86	
	BH5.2	SE246394.010	%	60 - 130%	92	
	BH6.1	SE246394.011	%	60 - 130%	84	
	BH6.2	SE246394.012	%	60 - 130%	84	
	BH7.1	SE246394.013	%	60 - 130%	84	
	BH7.2	SE246394.014	%	60 - 130%	88	
	BH8.1	SE246394.015	%	60 - 130%	80	
	BH8.2	SE246394.016	%	60 - 130%	85	
		Duplicate	SE246394.017	%	60 - 130%	68

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 Water**

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

Parameter	Sample Name	Sample Number	Units	Criteria	Recovery %
Bromofluorobenzene (Surrogate)	W1	SE246394.020	%	40 - 130%	111
	DWS1	SE246394.021	%	40 - 130%	110
d4-1,2-dichloroethane (Surrogate)	W1	SE246394.020	%	60 - 130%	103
	DWS1	SE246394.021	%	60 - 130%	100
d8-toluene (Surrogate)	W1	SE246394.020	%	40 - 130%	117
	DWS1	SE246394.021	%	40 - 130%	120

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.

**Conductivity and TDS by Calculation - Water**

Method: ME-(AU)-[ENV]AN106

Sample Number	Parameter	Units	LOR	Result
LB277625.001	Conductivity @ 25 C	µS/cm	2	<2
	Salinity*	mg/L	2	<2

**Dissolved Oxygen by Membrane Electrode**

Method: ME-(AU)-[ENV]AN176

Sample Number	Parameter	Units	LOR	Result
LB277628.001	Dissolved Oxygen**	mg/L	0.5	<0.5

**Mercury (dissolved) in Water**

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

Sample Number	Parameter	Units	LOR	Result
LB277706.001	Mercury	mg/L	0.0001	<0.0001

**Mercury in Soil**

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

Sample Number	Parameter	Units	LOR	Result
LB277993.001	Mercury	mg/kg	0.05	<0.05

**OC Pesticides in Soil**

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

Sample Number	Parameter	Units	LOR	Result
LB277778.001	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
	Isodrin	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
	Alpha Endosulfan	mg/kg	0.2	<0.2
	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
	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)	%	-	116

**OP Pesticides in Soil**

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

Sample Number	Parameter	Units	LOR	Result	
LB277778.001	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	
	Methodathion	mg/kg	0.5	<0.5	
	Parathion-ethyl (Parathion)	mg/kg	0.2	<0.2	
	Surrogates	2-fluorobiphenyl (Surrogate)	%	-	79

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)-[ENV]AN420

Sample Number	Parameter	Units	LOR	Result	
LB277778.001	Surrogates	d14-p-terphenyl (Surrogate)	%	-	99

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

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

Sample Number	Parameter	Units	LOR	Result
LB277778.001	Naphthalene	mg/kg	0.1	<0.1
	2-methylnaphthalene	mg/kg	0.1	<0.1
	1-methylnaphthalene	mg/kg	0.1	<0.1
	Acenaphthylene	mg/kg	0.1	<0.1
	Acenaphthene	mg/kg	0.1	<0.1
	Fluorene	mg/kg	0.1	<0.1
	Phenanthrene	mg/kg	0.1	<0.1
	Anthracene	mg/kg	0.1	<0.1
	Fluoranthene	mg/kg	0.1	<0.1
	Pyrene	mg/kg	0.1	<0.1
	Benzo(a)anthracene	mg/kg	0.1	<0.1
	Chrysene	mg/kg	0.1	<0.1
	Benzo(a)pyrene	mg/kg	0.1	<0.1
	Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.1
	Dibenzo(ah)anthracene	mg/kg	0.1	<0.1
	Benzo(ghi)perylene	mg/kg	0.1	<0.1
	Total PAH (18)	mg/kg	0.8	<0.8
	Surrogates	d5-nitrobenzene (Surrogate)	%	-
2-fluorobiphenyl (Surrogate)		%	-	79
d14-p-terphenyl (Surrogate)		%	-	99

PAH (Polynuclear Aromatic Hydrocarbons) in Water

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

Sample Number	Parameter	Units	LOR	Result	
LB277672.001	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)	%	-	44
		2-fluorobiphenyl (Surrogate)	%	-	52
d14-p-terphenyl (Surrogate)		%	-	82	

PCBs in Water

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

Sample Number	Parameter	Units	LOR	Result
LB277672.001	Arochlor 1016	µg/L	1	<1
	Arochlor 1221	µg/L	1	<1
	Arochlor 1232	µg/L	1	<1
	Arochlor 1242	µg/L	1	<1
	Arochlor 1248	µg/L	1	<1
	Arochlor 1254	µg/L	1	<1
	Arochlor 1260	µg/L	1	<1
	Arochlor 1262	µg/L	1	<1
	Arochlor 1268	µg/L	1	<1

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

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

Sample Number	Parameter	Units	LOR
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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.

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

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

Sample Number	Parameter	Units	LOR	Result
LB277998.001	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
LB277942.001	Arsenic	µg/L	1	<1
	Cadmium	µg/L	0.1	<0.1
	Chromium	µg/L	1	<1
	Copper	µg/L	1	<1
	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
LB277778.001	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
LB277672.001	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	
LB277779.001	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)	%	-	86
		d8-toluene (Surrogate)	%	-	79
		Bromofluorobenzene (Surrogate)	%	-	79
		Totals	Total BTEX*	mg/kg	0.6

**VOCs in Water**

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

Sample Number	Parameter	Units	LOR	Result	
LB277948.001	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)	%	-	104
		d8-toluene (Surrogate)	%	-	90
		Bromofluorobenzene (Surrogate)	%	-	129

**Volatile Petroleum Hydrocarbons in Soil**

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

Sample Number	Parameter	Units	LOR	Result
LB277779.001	TRH C6-C9	mg/kg	20	<20
	Surrogates	d4-1,2-dichloroethane (Surrogate)	%	-



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.

Volatile Petroleum Hydrocarbons in Water

Method: ME-(AU)-ENVJAN433

Sample Number	Parameter	Units	LOR	Result
LB277948.001	TRH C6-C9	µg/L	40	<40
	Surrogates			
	d4-1,2-dichloroethane (Surrogate)	%	-	104
	d8-toluene (Surrogate)	%	-	90
	Bromofluorobenzene (Surrogate)	%	-	129

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$   
 The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$   
 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 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 give a different calculated RPD.

Conductivity and TDS by Calculation - Water

Method: ME-(AU)-[ENV]AN106

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246404.001	LB277625.014	Conductivity @ 25 C	µS/cm	2	2800	2800	15	0
SE246406.001	LB277625.017	Conductivity @ 25 C	µS/cm	2	3100	3100	15	0

Mercury in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.010	LB277993.014	Mercury	mg/kg	0.05	<0.05	<0.05	200	0
SE246394.017	LB277993.022	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 %
SE246394.010	LB277780.011	% Moisture	%w/w	1	15.5	18.0	36	15
SE246394.019	LB277780.020	% Moisture	%w/w	1	<1.0	<1.0	200	0

OC Pesticides in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.010	LB277778.014	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
		Isodrin	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
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDE*	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
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD*	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
		o,p'-DDT*	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
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0		
Total OC VIC EPA	mg/kg	1	<1	<1	200	0		
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.15	0.15	30	3	
SE246394.017	LB277778.022	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
		Isodrin	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
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDE*	mg/kg	0.1	<0.1	<0.1	200	0

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$   
 The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$   
 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 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 give a different calculated RPD.

OC Pesticides in Soil (continued)

Method: ME-(AU)-[ENV]JAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.017	LB277778.022	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
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	200	0
		o,p'-DDD*	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
		o,p'-DDT*	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
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	200	0
		Total CLP OC Pesticides	mg/kg	1	<1	<1	200	0
		Total OC VIC EPA	mg/kg	1	<1	<1	200	0
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.14	0.15	30	2

OP Pesticides in Soil

Method: ME-(AU)-[ENV]JAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.010	LB277778.014	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	-	0.4	0.4	30	7
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE246394.017	LB277778.022	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	-	0.4	0.4	30	4
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	4

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]JAN420

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.010	LB277778.014	Naphthalene	mg/kg	0.1	0.1	0.1	108	10
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	164	0
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	183	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

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$   
 The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$   
 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 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 give a different calculated RPD.

PAH (Polynuclear Aromatic Hydrocarbons) in Soil (continued)

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %		
SE246394.010	LB277778.014	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		
		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	108	10		
		Surrogates		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.4	30	1
				2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	30	7
				d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	30	1
SE246394.017	LB277778.022	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		
		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		
		Surrogates		d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	30	3
2-fluorobiphenyl (Surrogate)	mg/kg			-	0.4	0.4	30	4		
d14-p-terphenyl (Surrogate)	mg/kg			-	0.5	0.5	30	4		

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

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE246394.010	LB277998.014	Arsenic, As	mg/kg	1	6	7	45	11
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	14	13	34	8
		Copper, Cu	mg/kg	0.5	5.9	5.6	39	6
		Nickel, Ni	mg/kg	0.5	1.5	1.6	62	4
		Lead, Pb	mg/kg	1	6	5	48	6
		Zinc, Zn	mg/kg	2	6.7	6.2	61	6
SE246394.017	LB277998.022	Arsenic, As	mg/kg	1	5	4	53	10
		Cadmium, Cd	mg/kg	0.3	<0.3	<0.3	200	0
		Chromium, Cr	mg/kg	0.5	5.3	6.3	39	17
		Copper, Cu	mg/kg	0.5	1.7	1.8	58	6
		Nickel, Ni	mg/kg	0.5	0.5	0.7	112	27
		Lead, Pb	mg/kg	1	3	3	68	4
Zinc, Zn	mg/kg	2	2.1	2.4	120	12		

Trace Metals (Dissolved) in Water by ICPMS

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

Original	Duplicate	Parameter	Units	LOR
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Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$   
 The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$   
 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 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 give a different calculated RPD.

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

Method: ME-(AU)-JENVJAN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %
SE224933A.002	LB277942.014	Arsenic	µg/L	1	<1	<1	126	0
		Cadmium	µg/L	0.1	<0.1	<0.1	200	0
		Lead	µg/L	1	<1	<1	149	0
SE246394.021	LB277942.023	Arsenic	µg/L	1	4	4	42	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	153	0
		Lead	µg/L	1	2	2	63	4
		Nickel	µg/L	1	1	1	114	2
		Zinc	µg/L	5	<5	<5	150	0

TRH (Total Recoverable Hydrocarbons) in Soil

Method: ME-(AU)-JENVJAN318

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246394.010	LB277778.014	TRH C10-C14	mg/kg	20	<20	<20	200	0	
		TRH C15-C28	mg/kg	45	<45	<45	200	0	
		TRH C29-C36	mg/kg	45	<45	<45	200	0	
		TRH C37-C40	mg/kg	100	<100	<100	200	0	
		TRH C10-C36 Total	mg/kg	110	<110	<110	200	0	
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	200	0	
		TRH F Bands	TRH >C10-C16	mg/kg	25	<25	<25	200	0
			TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	<25	<25	200	0
			TRH >C16-C34 (F3)	mg/kg	90	<90	<90	200	0
			TRH >C34-C40 (F4)	mg/kg	120	<120	<120	200	0
		SE246394.017	LB277778.022	TRH C10-C14	mg/kg	20	<20	<20	200
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

TRH (Total Recoverable Hydrocarbons) in Water

Method: ME-(AU)-JENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246347.001	LB277672.028	TRH C10-C14	µg/L	50	<50	<50	200	0	
		TRH C15-C28	µg/L	200	1000	1200	48	16	
		TRH C29-C36	µg/L	200	<200	<200	200	0	
		TRH C37-C40	µg/L	200	<200	<200	200	0	
		TRH C10-C40	µg/L	320	1000	1200	59	16	
		TRH F Bands	TRH >C10-C16	µg/L	60	<60	<60	200	0
			TRH >C10-C16 - Naphthalene (F2)	µg/L	60	<60	<60	200	0
			TRH >C16-C34 (F3)	µg/L	500	1000	1200	75	16
			TRH >C34-C40 (F4)	µg/L	500	<500	<500	200	0

VOC's in Soil

Method: ME-(AU)-JENVJAN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %			
SE246394.010	LB277779.014	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0		
			Toluene	mg/kg	0.1	<0.1	<0.1	200	0		
			Ethylbenzene	mg/kg	0.1	<0.1	<0.1	196	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 Surrogates	Naphthalene (VOC)*	mg/kg	0.1	0.2	0.2	74	11		
			d4-1,2-dichloroethane (Surrogate)	mg/kg	-	7.8	7.6	50	4		
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.0	50	3		
		Totals	Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.4	50	0		
			Total BTEX*	mg/kg	0.6	<0.6	<0.6	200	0		
			Total Xylenes*	mg/kg	0.3	<0.3	<0.3	200	0		
		SE246394.017	LB277779.026	Monocyclic Aromatic	Benzene	mg/kg	0.1	<0.1	<0.1	200	0
					Toluene	mg/kg	0.1	<0.1	<0.1	200	0
Ethylbenzene	mg/kg				0.1	<0.1	<0.1	200	0		

Duplicates are calculated as Relative Percentage Difference (RPD) using the formula:  $RPD = |OriginalResult - ReplicateResult| \times 100 / Mean$   
 The RPD is evaluated against the Maximum Allowable Difference (MAD) criteria and can be graphically represented by a curve calculated from the Statistical Detection Limit (SDL) and Limiting Repeatability (LR) using the formula:  $MAD = 100 \times SDL / Mean + LR$   
 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 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 give a different calculated RPD.

VOC's in Soil (continued)

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246394.017	LB277779.026	Monocyclic	m/p-xylene	mg/kg	0.2	<0.2	<0.2	200	0
		Aromatic	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	-	8.5	6.7	50	23
			d8-toluene (Surrogate)	mg/kg	-	6.8	7.4	50	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.7	50	1
		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]AN433

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246372.001	LB277948.027	Monocyclic	Benzene	µg/L	0.5	<0.5	<0.5	200	0
		Aromatic	Toluene	µg/L	0.5	<0.5	<0.5	200	0
			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
		Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	0.0	0.0	30	23
			d8-toluene (Surrogate)	µg/L	-	0.0	0.0	30	25
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	0.0	30	40 @
Totals	Total BTEX	µg/L	3	<3	<3	200	0		

Volatile Petroleum Hydrocarbons in Soil

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246394.010	LB277779.014	TRH C6-C10	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	-	7.8	7.6	30	4
			d8-toluene (Surrogate)	mg/kg	-	9.2	9.0	30	3
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.5	8.4	30	0
		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		
SE246394.017	LB277779.026	TRH C6-C10	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	-	8.5	6.7	30	23
			d8-toluene (Surrogate)	mg/kg	-	6.8	7.4	30	9
			Bromofluorobenzene (Surrogate)	mg/kg	-	7.7	7.7	30	1
		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		

Volatile Petroleum Hydrocarbons in Water

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

Original	Duplicate	Parameter	Units	LOR	Original	Duplicate	Criteria %	RPD %	
SE246372.001	LB277948.027	TRH C6-C10	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	-	0.0	0.0	30	23
			d8-toluene (Surrogate)	µg/L	-	0.0	0.0	30	25
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	0.0	30	40 @
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	200	0
TRH C6-C10 minus BTEX (F1)	µg/L		50	<50	<50	200	0		
SE246380.007	LB277948.028	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	0.0	0.0	30	23
			d8-toluene (Surrogate)	µg/L	-	0.0	0.0	30	22
			Bromofluorobenzene (Surrogate)	µg/L	-	0.0	0.0	30	36 @
		VPH F Bands	Benzene (F0)	µg/L	0.5	<0.5	<0.5	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.

**Conductivity and TDS by Calculation - Water**

Method: ME-(AU)-[ENV]JAN106

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277625.002	Conductivity @ 25 C	µS/cm	2	290	303	90 - 110	97

**Mercury in Soil**

Method: ME-(AU)-[ENV]JAN312

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277993.002	Mercury	mg/kg	0.05	0.20	0.2	80 - 120	99

**OC Pesticides in Soil**

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277778.002	Delta BHC	mg/kg	0.1	0.2	0.2	60 - 140	95
	Heptachlor	mg/kg	0.1	0.2	0.2	60 - 140	97
	Aldrin	mg/kg	0.1	0.2	0.2	60 - 140	95
	Dieldrin	mg/kg	0.2	<0.2	0.2	60 - 140	94
	Endrin	mg/kg	0.2	0.2	0.2	60 - 140	103
	p,p'-DDT	mg/kg	0.1	0.1	0.2	60 - 140	73
Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.16	0.15	40 - 130	108

**OP Pesticides in Soil**

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277778.002	Chlorpyrifos (Chlorpyrifos Ethyl)	mg/kg	0.2	2.0	2	60 - 140	100	
	Diazinon (Dimpylate)	mg/kg	0.5	2.1	2	60 - 140	104	
	Dichlorvos	mg/kg	0.5	1.6	2	60 - 140	82	
	Ethion	mg/kg	0.2	1.7	2	60 - 140	86	
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	83
	d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	100	

**PAH (Polynuclear Aromatic Hydrocarbons) in Soil**

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277778.002	Naphthalene	mg/kg	0.1	3.4	4	60 - 140	86	
	Acenaphthylene	mg/kg	0.1	3.4	4	60 - 140	86	
	Acenaphthene	mg/kg	0.1	3.7	4	60 - 140	93	
	Phenanthrene	mg/kg	0.1	3.5	4	60 - 140	87	
	Anthracene	mg/kg	0.1	3.7	4	60 - 140	92	
	Fluoranthene	mg/kg	0.1	3.5	4	60 - 140	87	
	Pyrene	mg/kg	0.1	3.8	4	60 - 140	94	
	Benzo(a)pyrene	mg/kg	0.1	3.5	4	60 - 140	86	
	Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	88
	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.5	40 - 130	83	
d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	40 - 130	100		

**PAH (Polynuclear Aromatic Hydrocarbons) in Water**

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277672.002	Naphthalene	µg/L	0.1	31	40	60 - 140	78	
	Acenaphthylene	µg/L	0.1	33	40	60 - 140	83	
	Acenaphthene	µg/L	0.1	32	40	60 - 140	80	
	Phenanthrene	µg/L	0.1	36	40	60 - 140	90	
	Anthracene	µg/L	0.1	34	40	60 - 140	84	
	Fluoranthene	µg/L	0.1	35	40	60 - 140	87	
	Pyrene	µg/L	0.1	34	40	60 - 140	84	
	Benzo(a)pyrene	µg/L	0.1	36	40	60 - 140	89	
	Surrogates	d5-nitrobenzene (Surrogate)	µg/L	-	0.4	0.5	40 - 130	78
	2-fluorobiphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	76	
d14-p-terphenyl (Surrogate)	µg/L	-	0.4	0.5	40 - 130	72		

**PCBs in Water**

Method: ME-(AU)-[ENV]JAN420

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277672.002	Arochlor 1260	µg/L	1	<1	0.4	60 - 140	88

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.

**pH in water** Method: ME-(AU)-[ENV]AN101

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277625.003	pH**	No unit	-	7.4	7.415	98 - 102	100

**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 %
LB277998.002	Arsenic, As	mg/kg	1	350	318.22	80 - 120	110
	Cadmium, Cd	mg/kg	0.3	3.6	4.81	70 - 130	74
	Chromium, Cr	mg/kg	0.5	45	38.31	80 - 120	118
	Copper, Cu	mg/kg	0.5	320	290	80 - 120	109
	Nickel, Ni	mg/kg	0.5	190	187	80 - 120	104
	Lead, Pb	mg/kg	1	94	89.9	80 - 120	104
	Zinc, Zn	mg/kg	2	280	273	80 - 120	101

**Trace Metals (Dissolved) in Water by ICPMS** Method: ME-(AU)-[ENV]AN318

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %
LB277942.002	Arsenic	µg/L	1	20	20	80 - 120	101
	Cadmium	µg/L	0.1	20	20	80 - 120	99
	Chromium	µg/L	1	19	20	80 - 120	97
	Copper	µg/L	1	20	20	80 - 120	100
	Lead	µg/L	1	19	20	80 - 120	95
	Nickel	µg/L	1	20	20	80 - 120	101
	Zinc	µg/L	5	20	20	80 - 120	98

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277778.002	TRH C10-C14	mg/kg	20	51	40	60 - 140	128	
	TRH C15-C28	mg/kg	45	48	40	60 - 140	121	
	TRH C29-C36	mg/kg	45	<45	40	60 - 140	79	
	TRH F Bands	TRH >C10-C16	mg/kg	25	51	40	60 - 140	129
	TRH >C16-C34 (F3)	mg/kg	90	<90	40	60 - 140	106	
	TRH >C34-C40 (F4)	mg/kg	120	<120	20	60 - 140	84	

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277672.002	TRH C10-C14	µg/L	50	970	1200	60 - 140	81	
	TRH C15-C28	µg/L	200	1100	1200	60 - 140	94	
	TRH C29-C36	µg/L	200	1300	1200	60 - 140	106	
	TRH F Bands	TRH >C10-C16	µg/L	60	1100	1200	60 - 140	90
	TRH >C16-C34 (F3)	µg/L	500	1200	1200	60 - 140	97	
	TRH >C34-C40 (F4)	µg/L	500	690	600	60 - 140	114	

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277779.002	Monocyclic	Benzene	mg/kg	0.1	3.9	5	60 - 140	79
		Aromatic	Toluene	mg/kg	0.1	4.4	5	60 - 140
	Ethylbenzene		mg/kg	0.1	3.4	5	60 - 140	69
	m/p-xylene		mg/kg	0.2	6.9	10	60 - 140	69
	o-xylene		mg/kg	0.1	3.6	5	60 - 140	73
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	10	70 - 130	86
		d8-toluene (Surrogate)	mg/kg	-	8.4	10	70 - 130	84
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.7	10	70 - 130	87

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277948.002	Monocyclic	Benzene	µg/L	0.5	48	45.45	60 - 140	105
		Aromatic	Toluene	µg/L	0.5	46	45.45	60 - 140
	Ethylbenzene		µg/L	0.5	47	45.45	60 - 140	104
	m/p-xylene		µg/L	1	98	90.9	60 - 140	108
	o-xylene		µg/L	0.5	50	45.45	60 - 140	109
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1	10	60 - 140	101
		d8-toluene (Surrogate)	µg/L	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10	70 - 130	107

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.

**Volatile Petroleum Hydrocarbons in Soil**

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277779.002	TRH C6-C10	mg/kg	25	98	92.5	60 - 140	106	
	TRH C6-C9	mg/kg	20	79	80	60 - 140	99	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	10	70 - 130	86
		Bromofluorobenzene (Surrogate)	mg/kg	-	8.7	10	70 - 130	87
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	76	62.5	60 - 140	121

**Volatile Petroleum Hydrocarbons in Water**

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

Sample Number	Parameter	Units	LOR	Result	Expected	Criteria %	Recovery %	
LB277948.002	TRH C6-C10	µg/L	50	1000	946.63	60 - 140	107	
	TRH C6-C9	µg/L	40	870	818.71	60 - 140	107	
	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	10.1	10	60 - 140	101
		d8-toluene (Surrogate)	µg/L	-	10.0	10	70 - 130	100
		Bromofluorobenzene (Surrogate)	µg/L	-	10.7	10	70 - 130	107
	VPH F Bands	TRH C6-C10 minus BTEX (F1)	µg/L	50	720	639.67	60 - 140	113

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]JAN312

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE246394.001	LB277993.004	Mercury	mg/kg	0.05	0.21	<0.05	0.2	96

OC Pesticides in Soil

Method: ME-(AU)-[ENV]JAN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE246394.001	LB277778.004	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	100
		Heptachlor	mg/kg	0.1	0.2	<0.1	0.2	101
		Aldrin	mg/kg	0.1	0.2	<0.1	0.2	99
		Isodrin	mg/kg	0.1	<0.1	<0.1	-	-
		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	-	-
		Alpha Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		o,p'-DDE*	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	98
		Endrin	mg/kg	0.2	0.2	<0.2	0.2	107
		Beta Endosulfan	mg/kg	0.2	<0.2	<0.2	-	-
		o,p'-DDD*	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	-	-
		o,p'-DDT*	mg/kg	0.1	<0.1	<0.1	-	-
		p,p'-DDT	mg/kg	0.1	0.2	<0.1	0.2	77
		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	-	-
		trans-Nonachlor	mg/kg	0.1	<0.1	<0.1	-	-
		Total CLP OC Pesticides	mg/kg	1	1	<1	-	-
		Total OC VIC EPA	mg/kg	1	1	<1	-	-
	Surrogates	Tetrachloro-m-xylene (TCMX) (Surrogate)	mg/kg	-	0.17	0.16	-	112

OP Pesticides in Soil

Method: ME-(AU)-[ENV]JAN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE246394.001	LB277778.004	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	2.0	<0.2	2	101
		Diazinon (Dimpylate)	mg/kg	0.5	2.1	<0.5	2	104
		Dichlorvos	mg/kg	0.5	1.6	<0.5	2	78
		Dimethoate	mg/kg	0.5	<0.5	<0.5	-	-
		Ethion	mg/kg	0.2	1.7	<0.2	2	84
		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	7.4	<1.7	-	-
	Surrogates	2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	81
		d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	95

PAH (Polynuclear Aromatic Hydrocarbons) in Soil

Method: ME-(AU)-[ENV]JAN420

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%
SE246394.001	LB277778.004	Naphthalene	mg/kg	0.1	3.4	<0.1	4	85
		2-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		1-methylnaphthalene	mg/kg	0.1	<0.1	<0.1	-	-
		Acenaphthylene	mg/kg	0.1	3.4	<0.1	4	84
		Acenaphthene	mg/kg	0.1	3.6	<0.1	4	91
		Fluorene	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%	
SE246394.001	LB277778.004	Phenanthrene	mg/kg	0.1	3.5	<0.1	4	87	
		Anthracene	mg/kg	0.1	3.5	<0.1	4	86	
		Fluoranthene	mg/kg	0.1	3.5	<0.1	4	86	
		Pyrene	mg/kg	0.1	3.6	<0.1	4	89	
		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	3.5	<0.1	4	87	
		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	3.5	<0.2	-	-	
		Carcinogenic PAHs, BaP TEQ <LOR=LOR/2*	TEQ (mg/kg)	0.2	3.6	<0.2	-	-	
		Carcinogenic PAHs, BaP TEQ <LOR=LOR*	TEQ (mg/kg)	0.3	3.6	<0.3	-	-	
		Total PAH (18)	mg/kg	0.8	28	<0.8	-	-	
		Surrogates	d5-nitrobenzene (Surrogate)	mg/kg	-	0.4	0.5	-	89
		2-fluorobiphenyl (Surrogate)	mg/kg	-	0.4	0.4	-	81	
d14-p-terphenyl (Surrogate)	mg/kg	-	0.5	0.5	-	95			

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%
SE246394.001	LB277998.004	Arsenic, As	mg/kg	1	47	1	50	91
		Cadmium, Cd	mg/kg	0.3	46	<0.3	50	91
		Chromium, Cr	mg/kg	0.5	49	2.5	50	94
		Copper, Cu	mg/kg	0.5	49	3.3	50	92
		Nickel, Ni	mg/kg	0.5	48	0.8	50	95
		Lead, Pb	mg/kg	1	52	8	50	89
		Zinc, Zn	mg/kg	2	58	12	50	91

TRH (Total Recoverable Hydrocarbons) in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE246394.001	LB277778.004	TRH C10-C14	mg/kg	20	52	<20	40	125	
		TRH C15-C28	mg/kg	45	48	<45	40	113	
		TRH C29-C36	mg/kg	45	<45	<45	40	84	
		TRH C37-C40	mg/kg	100	<100	<100	-	-	
		TRH C10-C36 Total	mg/kg	110	<110	<110	-	-	
		TRH >C10-C40 Total (F bands)	mg/kg	210	<210	<210	-	-	
		TRH F Bands	TRH >C10-C16	mg/kg	25	51	<25	40	122
		TRH >C10-C16 - Naphthalene (F2)	mg/kg	25	51	<25	-	-	
		TRH >C16-C34 (F3)	mg/kg	90	<90	<90	40	102	
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%	
SE246394.001	LB277779.004	Monocyclic Aromatic	Benzene	mg/kg	0.1	4.5	<0.1	5	89
			Toluene	mg/kg	0.1	4.4	<0.1	5	89
			Ethylbenzene	mg/kg	0.1	4.4	<0.1	5	89
			m/p-xylene	mg/kg	0.2	8.8	<0.2	10	88
			o-xylene	mg/kg	0.1	4.5	<0.1	5	89
		Polycyclic	Naphthalene (VOC)*	mg/kg	0.1	<0.1	<0.1	-	-
			Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	7.7	10
			d8-toluene (Surrogate)	mg/kg	-	9.2	8.8	10	92
			Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	8.2	10	89
		Totals	Total BTEX*	mg/kg	0.6	27	<0.6	-	-
			Total Xylenes*	mg/kg	0.3	13	<0.3	-	-

Volatile Petroleum Hydrocarbons in Soil

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE246394.001	LB277779.004	TRH C6-C10	mg/kg	25	88	<25	92.5	94	
		TRH C6-C9	mg/kg	20	77	<20	80	96	
		Surrogates	d4-1,2-dichloroethane (Surrogate)	mg/kg	-	8.6	7.7	10	86
		d8-toluene (Surrogate)	mg/kg	-	9.2	8.8	10	92	

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.

**Volatile Petroleum Hydrocarbons in Soil (continued)**

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE246394.001	LB277779.004	Surrogates	Bromofluorobenzene (Surrogate)	mg/kg	-	8.9	8.2	-	89
		VPH F	Benzene (F0)	mg/kg	0.1	4.5	<0.1	-	-
		Bands	TRH C6-C10 minus BTEX (F1)	mg/kg	25	61	<25	62.5	97

**Volatile Petroleum Hydrocarbons in Water**

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

QC Sample	Sample Number	Parameter	Units	LOR	Result	Original	Spike	Recovery%	
SE246380.001	LB277948.026	Surrogates	d4-1,2-dichloroethane (Surrogate)	µg/L	-	9.0	11.04334143957	-	90
			d8-toluene (Surrogate)	µg/L	-	8.9	10.7976963018E	-	89
			Bromofluorobenzene (Surrogate)	µg/L	-	9.3	12.3954944100E	-	93
		VPH F	Benzene (F0)	µg/L	0.5		0	-	-



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 end of this report for failure reasons.

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](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

LABORATORY DETAILS

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Project **N6527**  
 Order Number **N6527**  
 Samples 8

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SGS Reference **SE246394 R0**  
 Date Received 24 Apr 2023  
 Date Reported 02 May 2023

COMMENTS

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

VPH - The Limit of Reporting (LOR) has been raised due to interferences from the sample matrix. No respirable fibres detected in all soil samples using trace analysis technique.

Sample #9: Chrysotile asbestos found in approx 8x4x2mm cement sheet fragments x7. Asbestos analysed by Approved Identifier Ravee Sivasubramaniam and Yusuf Kuthpudin

SIGNATORIES



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*
SE246394.001	BH1.1	Soil	917g Clay, Sand, Soil, Rocks	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.003	BH2.1	Soil	867g Clay, Sand, Rocks, Bitumen	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.005	BH3.1	Soil	930g Sand, Soil, Rocks, Bitumen	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.007	BH4.1	Soil	952g Sand, Soil, Rocks, Bitumen	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.009	BH5.1	Soil	881g Clay, Sand, Soil, Rocks, Bitumen	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.011	BH6.1	Soil	963g Clay, Sand, Rocks, Bitumen	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.013	BH7.1	Soil	860g Clay, Sand, Rocks	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01
SE246394.015	BH8.1	Soil	844g Clay, Sand, Rocks	24 Apr 2023	No Asbestos Found at RL of 0.1g/kg	<0.01

Gravimetric Determination of Asbestos in Soil [AN605] Tested: 28/4/2023

PARAMETER	UOM	LOR	BH1.1	BH2.1	BH3.1	BH4.1	BH5.1
			SOIL	SOIL	SOIL	SOIL	SOIL
			24/4/2023 SE246394.001	24/4/2023 SE246394.003	24/4/2023 SE246394.005	24/4/2023 SE246394.007	24/4/2023 SE246394.009
Total Sample Weight*	g	1	<b>917</b>	<b>867</b>	<b>930</b>	<b>952</b>	<b>881</b>
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<b>0.0350</b>
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<b>0.004</b>
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001	<0.001	<b>0.004</b>
Fibre Type*	No unit	-	NAD	NAD	NAD	NAD	Chrysotile

PARAMETER	UOM	LOR	BH6.1	BH7.1	BH8.1
			SOIL	SOIL	SOIL
			24/4/2023 SE246394.011	24/4/2023 SE246394.013	24/4/2023 SE246394.015
Total Sample Weight*	g	1	<b>963</b>	<b>860</b>	<b>844</b>
Bonded ACM in >7mm Sample*	g	0.001	<0.001	<0.001	<0.001
AF/FA in >2mm to <7mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001
AF/FA in <2mm Sample*	g	0.00001	<0.00001	<0.00001	<0.00001
Asbestos in soil (>7mm ACM)*	%w/w	0.01	<0.01	<0.01	<0.01
Asbestos in soil (>2mm to <7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Asbestos in soil (<2mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Asbestos in soil (<7mm AF/FA)*	%w/w	0.001	<0.001	<0.001	<0.001
Fibre Type*	No unit	-	NAD	NAD	NAD

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	<p>The sample can be reported "no asbestos found at the reporting limit (RL) of 0.1 g/kg" (&lt;0.01%w/w) where AN602 section 4.5 of this method has been followed, and if-</p> <ul style="list-style-type: none"> <li>(a) no trace asbestos fibres have been detected (i.e. no 'respirable' fibres);</li> <li>(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</li> <li>(c) these non-respirable asbestos fibre bundles and/or the asbestos containing materials are only visible under stereo-microscope viewing conditions.</li> </ul>
AN605	This technique gravimetrically determines the mass of Bonded Asbestos Containing Material retained on a 7mm Sieve and assumes that 15% of this ACM is asbestos. This calculated asbestos weight is then calculated as a percentage of the total sample weight. Any fibrous asbestos (FA) found in this fraction will be added to the 2-7mm fraction and its mass recorded there.
AN605	This technique also gravimetrically determines the mass of Fibrous Asbestos (FA) and Asbestos Fines (AF) Containing Material retained on and passing a 2mm sieve post 7mm sieving. Assumes that FA and AF are 100% asbestos containing. This calculated asbestos weight is then calculated as a percentage of the total sample weight. This does not include free/respirable fibres which are only observed by standard trace analysis as per AN602.
AN605	<p>Bonded asbestos containing material (Bonded ACM) comprises asbestos-containing-material which is sound in condition.</p> <p>Fibrous asbestos (FA) comprises friable asbestos material and includes severely weathered cement sheet, insulation products and woven asbestos material.</p> <p>Asbestos fines (AF) includes free fibres, small fibre bundles and also small fragments of bonded ACM that passes through a 7mm sieve - which implies that the bonded ACM fragments have a substantial degree of damage which increases the potential for fibre release.</p>
AN-605	Insofar as is technically feasible, this report is consistent with the analytical reporting recommendations in the Western Australian Department of Health Guidelines for the Assessment Remediation and Management of Asbestos - Contaminated Sites in Western Australia - May 2009 and NEPM 1999 (2013) schedule B1 section 4..



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](http://www.sgs.com.au/en-gb/environment-health-and-safety).

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## APPENDIX C

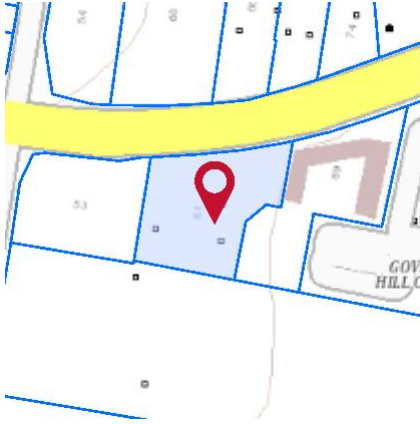
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Property Report and Relevant Site Data

**NEO** CONSULTING

# Property Report

61 SYDNEY ROAD GOULBURN 2580



## Property Details

Address: 61 SYDNEY ROAD GOULBURN 2580  
Lot/Section /Plan No: 5/-/DP793066  
Council: GOULBURN MULWAREE 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	Goulburn Mulwaree Local Environmental Plan 2009 (pub. 6-8-2021)
Land Zoning	B6 - Enterprise Corridor: (pub. 6-8-2021)
Height Of Building	NA
Floor Space Ratio	0.8:1
Minimum Lot Size	NA
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA

## 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)

- 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: Subject Land (pub. 2-12-2021)
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004: Land Application (pub. 25-6-2004)
- 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 (Transport and Infrastructure) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Subject Land (pub. 16-12-2022)
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development: Land Application (pub. 26-7-2002)

## 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
Land near Electrical Infrastructure	This property may be located near electrical infrastructure and could be subject to requirements listed under ISEPP Clause 45. Please contact Essential Energy for more information.
Local Aboriginal Land Council	PEJAR
Regional Plan Boundary	South East and Tablelands

This report provides general information only and does not replace a Section 10.7 Certificate (formerly Section 149)



## Caller Details

**Contact:** Nick Caltabiano **Caller Id:** 3063293 **Phone:** 0423 834 874  
**Company:** Neo Consulting  
**Address:** 186 Riverstone Parade **Email:** neo.searches.dbyd@gmail.com  
Riverstone NSW 2765

## Dig Site and Enquiry Details

**WARNING:**The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.



**User Reference:** Goulburn  
**Working on Behalf of:** Private  
**Enquiry Date:** 13/04/2023 **Start Date:** 14/04/2023 **End Date:** 28/04/2023

**Address:**  
61 Sydney Road  
Goulburn NSW 2580

**Job Purpose:**  
Excavation

**Onsite Activities:**  
Vertical Boring

**Location of Workplace:**  
Private

**Location in Road:**

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

**Notes/Description of Works:**  
Not supplied

## Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at [www.byda.com.au](http://www.byda.com.au)
- **For more information on safe excavation practices, visit [www.byda.com.au](http://www.byda.com.au)**

## Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

\*\* Asset owners highlighted by asterisks \*\* require that you visit their offices to collect plans.

# Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

Seq. No.	Authority Name	Phone	Status
223395141	Essential Energy	13 23 91	NOTIFIED
223395142	Jemena Gas Country	1300 880 906	NOTIFIED
223395140	NBN Co NswAct	1800 687 626	NOTIFIED
223395139	Optus and or Uecomm Nsw	1800 505 777	NOTIFIED
223395138	Telstra NSW South	1800 653 935	NOTIFIED

END OF UTILITIES LIST



Governor's Hill Motel Site  
61 Sydney Rd, Goulburn NSW 2580





DP 1280250

DP 793066

1:282  
0 3 6m



53

5

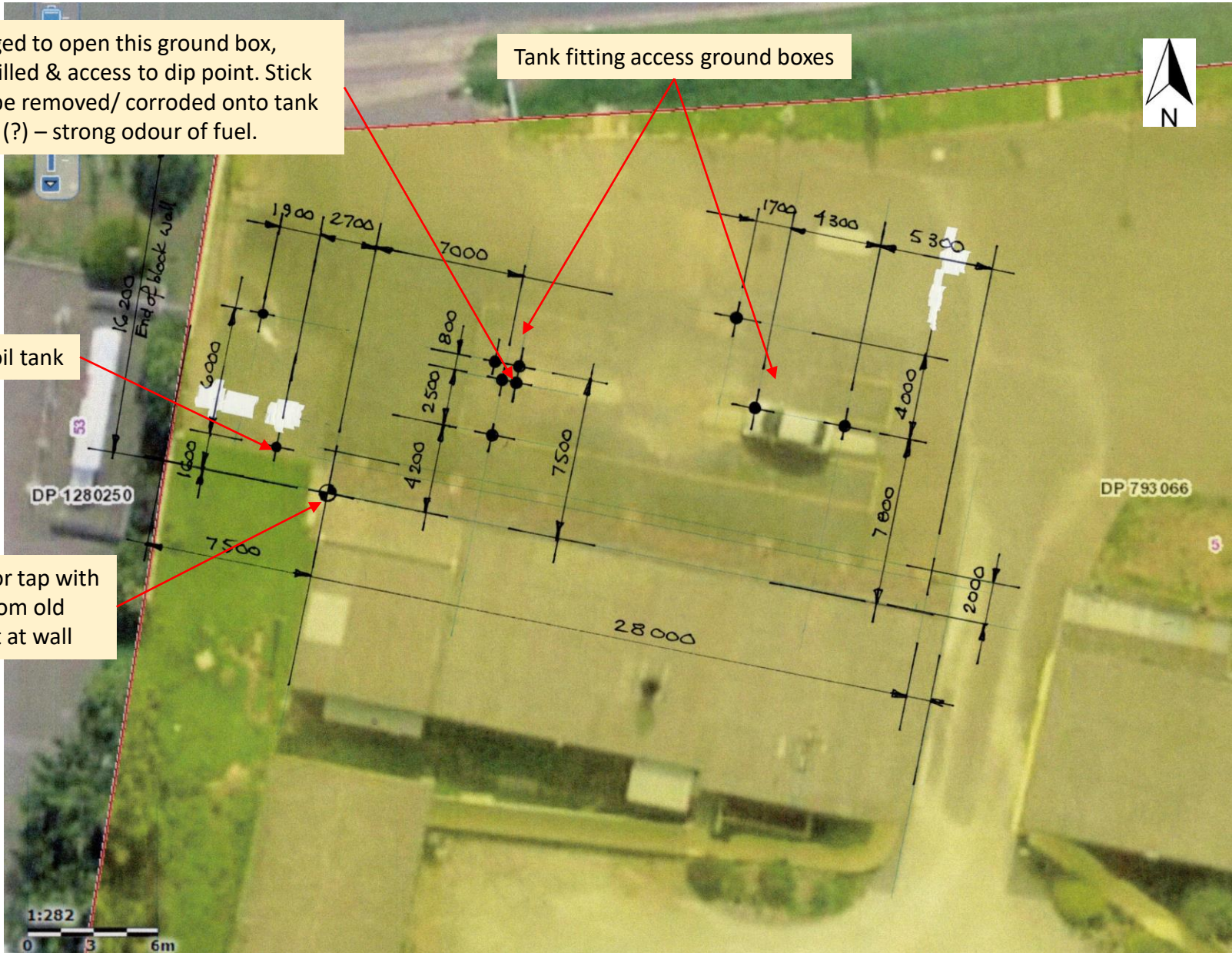
Managed to open this ground box, concrete filled & access to dip point. Stick could not be removed/ corroded onto tank shell (?) – strong odour of fuel.

Tank fitting access ground boxes



Possible waste oil tank

Triple interceptor tap with drain pipe from old workshop cut at wall







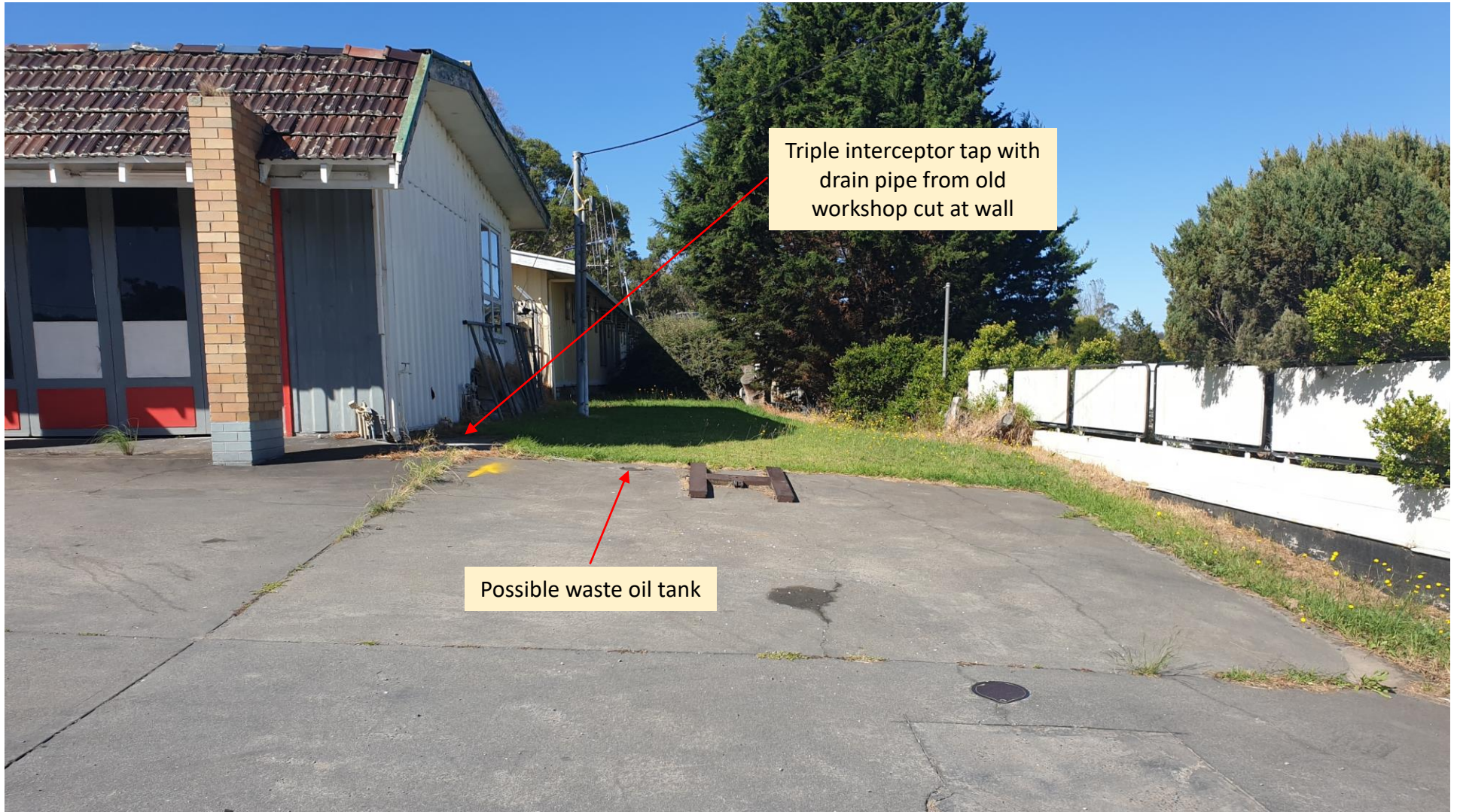


Photo 1





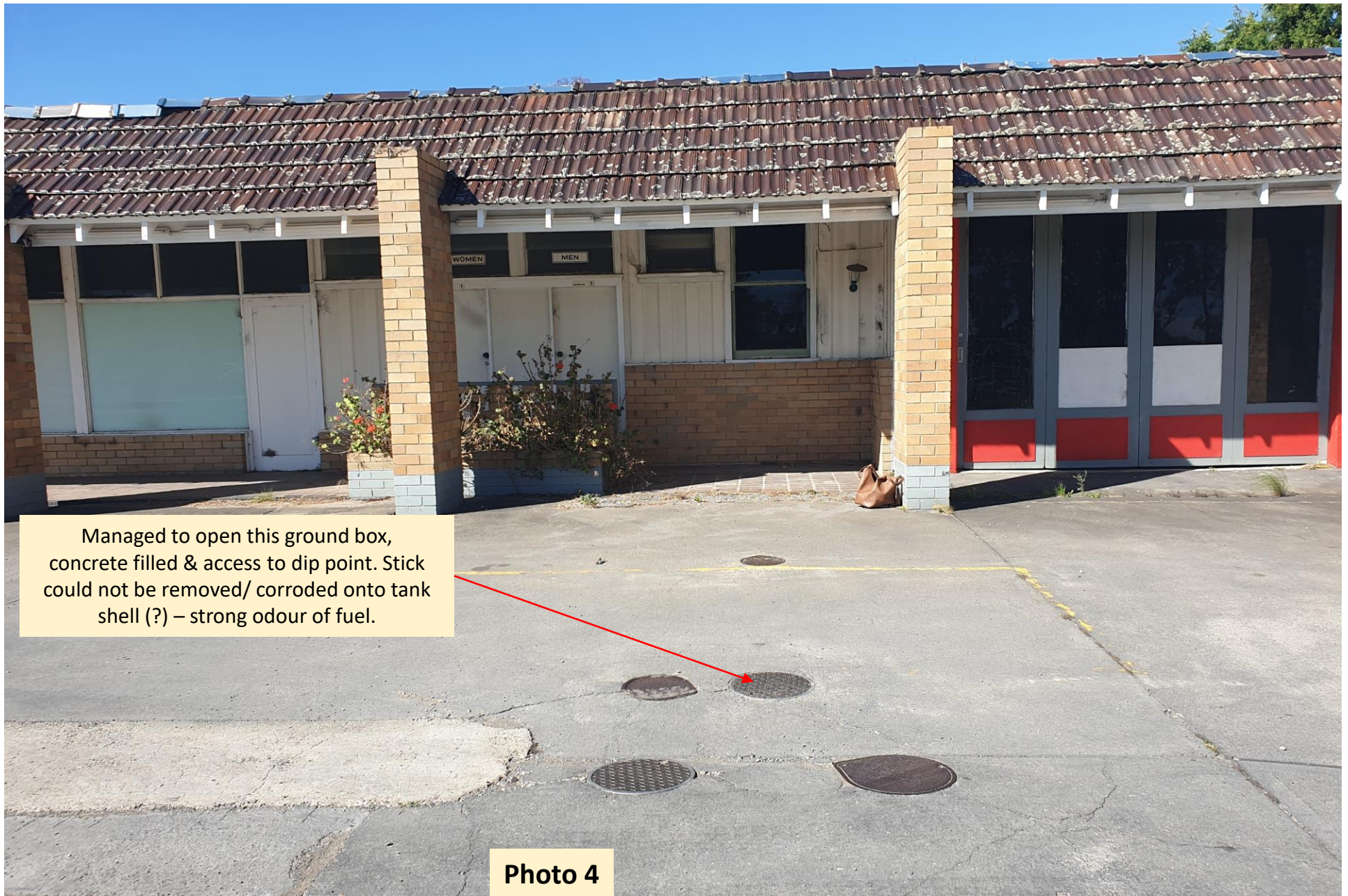
Photo 2





Photo 3





Managed to open this ground box,  
concrete filled & access to dip point. Stick  
could not be removed/ corroded onto tank  
shell (?) – strong odour of fuel.

**Photo 4**





Photo 5

**ADVANCE LEGAL SEARCHERS PTY LTD**

(ACN 147 843 842)

ABN 82 147 943 842

18/36 Osborne Road,  
Manly NSW 2095

Mobile: 0412 169 809

Email: [search@alsearchers.com.au](mailto:search@alsearchers.com.au)

17<sup>th</sup> April, 2023

**NEO CONSULTING PTY LIMITED**

P.O. Box 279

**RIVERSTONE NSW 2765**

**Attention: Stephanie Rafin,**

**RE:**

**61 Sydney Road,  
Goulburn  
Job Reference: N6526**

**Current Search**

Folio Identifier 5/793066 (title attached)

DP 793066 (plan attached)

Dated 14<sup>th</sup> April, 2023

Registered Proprietor:

**LA ROCCO PTY LTD** (ACN 626 746 398)

**Title Tree**  
**Lot 5 DP 793066**

Folio Identifier 5/793066

Folio Identifier 3/706570

Certificate of Title Volume 14688 Folio 29

PA 54938

Conveyance Book 3143 No 319

Conveyance Book 2551 No 719

Conveyance Book 2481 No 28

Conveyance Book 2190 No 402

Conveyance Book 2112 No 56

\*\*\*\*

**Index**

T – Transfer

(L) – Lease

C – Conveyance

\*\*\*\*

**Summary of proprietor(s)  
Lot 5 DP 793066**

Year	Proprietor(s)	
	<b>(Lot 5 DP 793066)</b>	
27 Jul 2018 todate	La Rocco Pty Ltd (ACN 626 746 398)	T
27 Jul 2011	Sam Eid	T
20 Sep 2002	Alan David McCarthy	T
08 Dec 1989	Alan David McCarthy Barbara Patricia McCarthy	
<i>(08 Dec 1989 todate)</i>	<i>(various leases shown on Historical Folio 5/793066 (attached))</i>	<i>(L)</i>
	<b>(Lot 3 DP 706570)</b>	
17 Aug 1984	Alan David McCarthy Barbara Patricia McCarthy	
<i>(17 Aug 1984 to 08 Dec 1989)</i>	<i>(various leases shown on Historical Folio 3/706570 (attached))</i>	<i>(L)</i>
	<b>(Lot 1 DP 599139 – CTVol 14688 Fol 29)</b>	
04 May 1982	Alan David McCarthy Barbara Patricia McCarthy	
<i>(22 Mar 1982 to 02 May 1985)</i>	<i>(lease to MC &amp; RG Hair Pty Ltd, of service station and restaurant at Governor’s Hill)</i>	<i>(L)</i>
<i>(20 Mar 1981 to 31 Jan 1994)</i>	<i>(lease to Graeme Geoffrey Williams &amp; Rosalie Beryl Williams, of Lots 10 – 13 Sydney Road, Goulburn)</i>	<i>(L)</i>
<i>(24 Jun 1981 to 26 Jun 1984)</i>	<i>(lease to John Randall Moore &amp; Deidre Helen Moore, of premises known as Governor’s Hill Motel)</i>	<i>(L)</i>
	<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres – Conv Bk 3143 No 319)</b>	
20 Feb 1974	Alan David McCarthy, motel proprietor Barbara Patricia McCarthy, his wife	C
	<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres – Conv Bk 2551 No 719)</b>	
23 Nov 1960	Governor’s Hill Motel Pty Limited	C
	<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn – Area 7 Acres – Conv Bk 2481 No 28)</b>	
31 Mar 1959	Reginald William Pidoux, carpenter	C

Cont.

Cont.

	<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn and other lands – Conv Bk 2190 No 402)</b>	
27 Sep 1951	Collier's Transport Proprietary Limited <i>(formerly Collier's Interstate Transport Services Limited)</i>	C
	<b>(Lots 5 to 19 of subdivision of Allotment 41 Town Goulburn and other lands – Conv Bk 2112 No 56)</b>	
09 Dec 1949	Charles Fletcher, retired grazier	C
03 Jul 1942	Job Gray, retired labourer / executor Allan Frank Gulson, brickworks proprietor / executor Arthur Middleton Watson, carpenter / executor Sam Burgess, estate	
06 Mar 1927	Elizabeth Gulson, married woman / executrix Sam Burgess, estate	























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	Status	Surv/Comp	Purpose
DP32146 Lot(s): S			
CA88523 - LOT S DP32146			
DP38459 Lot(s): 5			
CA89806 - LOT 5 DP38459			
DP158442 Lot(s): B			
CA87932 - LOT B DP158442			
DP212641 Lot(s): 2			
CA89503 - LOT 2 DP212641			
DP228579 Lot(s): 4			
CA89191 - LOT 20 DP1063056 AND LOT 4 DP228579			
DP248024 Lot(s): 1			
CA114183 - LOT 1 DP248024			
DP750050 Lot(s): 47			
DP1283018 REGISTERED SURVEY EASEMENT			
CA92717 - LOTS 25 AND 47 DP750050			
Lot(s): 22			
DP1129889 PRE-ALLOCATED UNAVAILABLE SUBDIVISION			
DP1278180 REGISTERED COMPILATION EASEMENT			
Lot(s): 23			
CA89532 - LOT 23 DP750050 AND LOT 240 DP1064721			
DP793066 Lot(s): 5			
DP1172774 WITHDRAWN UNAVAILABLE SUBDIVISION			
DP1005184 Lot(s): 11, 12, 13			
DP626592 HISTORICAL SURVEY SUBDIVISION			
DP1022060 Lot(s): 1			
DP1007110 HISTORICAL COMPILATION LIMITED FOLIO CREATION			
Lot(s): 2			
DP998237 HISTORICAL COMPILATION DEPARTMENTAL			
DP1045794 Lot(s): 1, 2			
DP999234 HISTORICAL COMPILATION DEPARTMENTAL			
DP1267226 REGISTERED COMPILATION EASEMENT			
DP1048753 Lot(s): 1			
CA87614 - LOT 1 DP1048753			
DP1053721 Lot(s): 1, 2			
DP65541 HISTORICAL SURVEY UNRESEARCHED			
DP1063056 Lot(s): 20			
CA89191 - LOT 20 DP1063056 AND LOT 4 DP228579			
DP1064103 Lot(s): 1			
NSW GAZ. 11-03-2005 Folio : 758			
ACQUIRED FOR COUNCIL PURPOSES LOT 1 DP1064103			
PA81857 - LOT 1 DP1064103			
DP1086276 Lot(s): 13			
CA95260 - LOT 13 DP1086276			

**Caution:** This information is provided as a searching aid only. Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For **ALL ACTIVITY PRIOR TO SEPTEMBER 2002** you must refer to the RGs Charting and Reference Maps.

	Status	Surv/Comp	Purpose
DP1086290			
Lot(s): 3			
	CA95265 - LOT 3 DP1086290		
Lot(s): 4			
	CA95273 - LOT 4 DP1086290		
DP1094271			
Lot(s): 19			
	CA95612 - LOTS 1 AND 5 DP152674 AND LOT 19 DP1094271		
DP1113506			
Lot(s): 22			
	DP1081409	HISTORICAL	SURVEY
	DP1092642	HISTORICAL	COMPILATION
	CA97669 - LOT 3 DP1092642		
DP1118342			
Lot(s): 3			
	CA113187 - LOTS 1 AND 3 DP1118342		
Lot(s): 2			
	CA114996 - NPW (SEE CA113187 - LOT 2 DP1118342)		
DP1148255			
Lot(s): 21			
	CA150232 - LOT 21 DP1148255		
DP1153479			
Lot(s): 1, 2			
	DP996791	HISTORICAL	COMPILATION
DP1158201			
Lot(s): 1, 2			
	NSW GAZ.	28-01-2011	Folio : 250
	CLOSED ROAD		
	LOTS 1-2 DP1158201		
DP1159789			
Lot(s): 1			
	NSW GAZ.	14-07-2006	Folio : 5494
	TRANSFER OF CROWN ROAD TO COUNCIL		
	NSW GAZ.	04-03-2011	Folio : 1642
	CLOSED ROAD		
	LOT 1 DP1159789		
DP1177534			
Lot(s): 22			
	PLAN OF PROPOSED EASEMENT FOR TRANSMISSION LINE		
	DP631512	REGISTERED	COMPILATION
	DP880446	REGISTERED	SURVEY
RESUMPTION OR ACQUISITION			
RESUMPTION OR ACQUISITION			
DP1196725			
Lot(s): 1, 2			
	DP862560	HISTORICAL	SURVEY
	DP1081409	HISTORICAL	SURVEY
SUBDIVISION			
SUBDIVISION			
DP1199537			
Lot(s): 1, 2			
	DP1067647	HISTORICAL	COMPILATION
	CA89768 - LOT 1011 DP1067647 AND LOT 3 DP249129		
LIMITED FOLIO CREATION			
DP1201013			
Lot(s): 1, 2			
	DP779301	HISTORICAL	COMPILATION
DEPARTMENTAL			
DP111846			
Lot(s): 2			
	DP111846	HISTORICAL	COMPILATION
DEPARTMENTAL			

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	Status	Surv/Comp	Purpose
DP1210200			
Lot(s): 50			
 DP94626	HISTORICAL	COMPILATION	DEPARTMENTAL
 DP94627	HISTORICAL	COMPILATION	DEPARTMENTAL
 DP94630	HISTORICAL	COMPILATION	DEPARTMENTAL
 DP1147760	HISTORICAL	COMPILATION	CROWN LAND CONVERSION
 DP1249658	REGISTERED	SURVEY	RESUMPTION OR ACQUISITION
 NSW GAZ.	13-12-2019		Folio : 5685
ACQUIRED FOR THE PURPOSES OF THE ROADS ACT, 1993			
LOT 7001 DP946926, LOT 7004 DP94627, LOT 7003 DP94630 AND LOT 7304 DP147760			
DP1212640			
Lot(s): 3770			
 CA174730 - LOT 3770 DP1212640			
DP1230144			
Lot(s): 2			
 DP861360	HISTORICAL	SURVEY	SUBDIVISION
Lot(s): 1			
 DP740958	HISTORICAL	SURVEY	SUBDIVISION
DP1249008			
Lot(s): 1, 2, 3			
 DP808737	HISTORICAL	SURVEY	SUBDIVISION
DP1249189			
Lot(s): 1, 2			
 DP152674	HISTORICAL	SURVEY	UNRESEARCHED
 CA95612 - LOTS 1 AND 5 DP152674 AND LOT 19 DP1094271			
DP1274712			
Lot(s): 23			
 DP1092642	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
 DP1113506	HISTORICAL	SURVEY	SUBDIVISION
 CA97669 - LOT 3 DP1092642			
DP1275176			
Lot(s): 54			
 DP136771	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
DP1275702			
Lot(s): 54			
 DP700467	HISTORICAL	SURVEY	SUBDIVISION
DP1280250			
Lot(s): 53			
 DP774345	HISTORICAL	SURVEY	SUBDIVISION
DP1285043			
Lot(s): 5			
 DP750050	HISTORICAL	COMPILATION	CROWN ADMIN NO.
 CA88231 - LOT 48 DP750050			
DP1285289			
Lot(s): 33			
 DP632453	HISTORICAL	SURVEY	SUBDIVISION
SP70637			
 DP793066	HISTORICAL	SURVEY	SUBDIVISION
 DP1056323	HISTORICAL	SURVEY	REDEFINITION
Road			
Polygon Id(s): 105324434			
 NSW GAZ.	27-09-2019		Folio : 4188
TRANSFER OF CROWN ROAD TO COUNCIL			
AFFECTING THE LAND SHADED RED IN THE DIAGRAM ACCOMPANYING THIS GAZETTE NOTIFICATION			

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<b>Plan</b>	<b>Surv/Comp</b>	<b>Purpose</b>
DP32146	SURVEY	UNRESEARCHED
DP38459	SURVEY	UNRESEARCHED
DP94628	COMPILATION	DEPARTMENTAL
DP94629	COMPILATION	DEPARTMENTAL
DP111406	COMPILATION	DEPARTMENTAL
DP112459	COMPILATION	DEPARTMENTAL
DP136788	COMPILATION	DEPARTMENTAL
DP158442	SURVEY	UNRESEARCHED
DP212641	SURVEY	SUBDIVISION
DP228579	SURVEY	SUBDIVISION
DP234340	SURVEY	SUBDIVISION
DP248024	SURVEY	ROAD OR MOTORWAY
DP508304	SURVEY	SUBDIVISION
DP581011	SURVEY	SUBDIVISION
DP590126	SURVEY	SUBDIVISION
DP599139	SURVEY	SUBDIVISION
DP617289	COMPILATION	CONSOLIDATION
DP626592	SURVEY	SUBDIVISION
DP632453	SURVEY	SUBDIVISION
DP655824	COMPILATION	DEPARTMENTAL
DP661037	COMPILATION	DEPARTMENTAL
DP669162	COMPILATION	DEPARTMENTAL
DP713005	SURVEY	OLD SYSTEM CONVERSION
DP716191	SURVEY	SUBDIVISION
DP721915	SURVEY	CROWN FOLIO CREATION
DP727649	SURVEY	ROADS ACT, 1993
DP737552	COMPILATION	DEPARTMENTAL
DP740958	SURVEY	SUBDIVISION
DP750015	COMPILATION	CROWN ADMIN NO.
DP750050	COMPILATION	CROWN ADMIN NO.
DP793066	SURVEY	SUBDIVISION
DP808737	SURVEY	SUBDIVISION
DP836429	SURVEY	SUBDIVISION
DP838564	SURVEY	SUBDIVISION
DP862560	SURVEY	SUBDIVISION
DP986861	COMPILATION	DEPARTMENTAL
DP995523	COMPILATION	DEPARTMENTAL
DP998572	COMPILATION	DEPARTMENTAL
DP1005184	SURVEY	SUBDIVISION
DP1011001	COMPILATION	ROADS ACT, 1993
DP1022060	SURVEY	OLD SYSTEM CONVERSION
DP1045794	SURVEY	SUBDIVISION
DP1048753	COMPILATION	LIMITED FOLIO CREATION
DP1053721	SURVEY	SUBDIVISION
DP1063056	COMPILATION	LIMITED FOLIO CREATION
DP1064103	SURVEY	RESUMPTION OR ACQUISITION
DP1086276	COMPILATION	LIMITED FOLIO CREATION
DP1086290	COMPILATION	LIMITED FOLIO CREATION
DP1094271	COMPILATION	LIMITED FOLIO CREATION
DP1113506	SURVEY	SUBDIVISION
DP1118342	COMPILATION	LIMITED FOLIO CREATION
DP1148255	COMPILATION	LIMITED FOLIO CREATION
DP1153479	SURVEY	SUBDIVISION
DP1153479	UNRESEARCHED	SUBDIVISION
DP1158201	UNRESEARCHED	ROADS ACT, 1993
DP1159789	COMPILATION	CROWN ROAD ENCLOSURE
DP1177534	COMPILATION	CROWN LAND CONVERSION
DP1196725	SURVEY	SUBDIVISION
DP1199537	SURVEY	SUBDIVISION
DP1199537	UNRESEARCHED	SUBDIVISION
DP1201013	SURVEY	SUBDIVISION
DP1210200	SURVEY	SUBDIVISION
DP1210200	UNRESEARCHED	RESUMPTION OR ACQUISITION
DP1212640	COMPILATION	LIMITED FOLIO CREATION
DP1213397	COMPILATION	LIMITED FOLIO CREATION

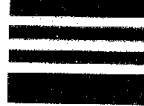
**Caution:** This information is provided as a searching aid only. Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For **ALL**

**ACTIVITY PRIOR TO SEPTEMBER 2002** you must refer to the RGs Charting and Reference Maps.

Plan	Surv/Comp	Purpose
DP1230144	SURVEY	SUBDIVISION
DP1249008	SURVEY	SUBDIVISION
DP1249189	SURVEY	SUBDIVISION
DP1249658	SURVEY	RESUMPTION OR ACQUISITION
DP1274712	SURVEY	SUBDIVISION
DP1275176	SURVEY	SUBDIVISION
DP1275702	SURVEY	SUBDIVISION
DP1280250	SURVEY	SUBDIVISION
DP1285043	SURVEY	SUBDIVISION
DP1285289	SURVEY	SUBDIVISION
SP70637	COMPILATION	STRATA PLAN

**Caution:** This information is provided as a searching aid only. Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For **ALL** **ACTIVITY PRIOR TO SEPTEMBER 2002** you must refer to the RGs Charting and Reference Maps.

NEW SOUTH WALES



# CERTIFICATE OF TITLE



14688029

REAL PROPERTY ACT, 1900

Appln No. 54938

Vol. 14688 Fol. 29



EDITION ISSUED

4 5 1992

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions encumbrances and interests as are shown in the Second Schedule.

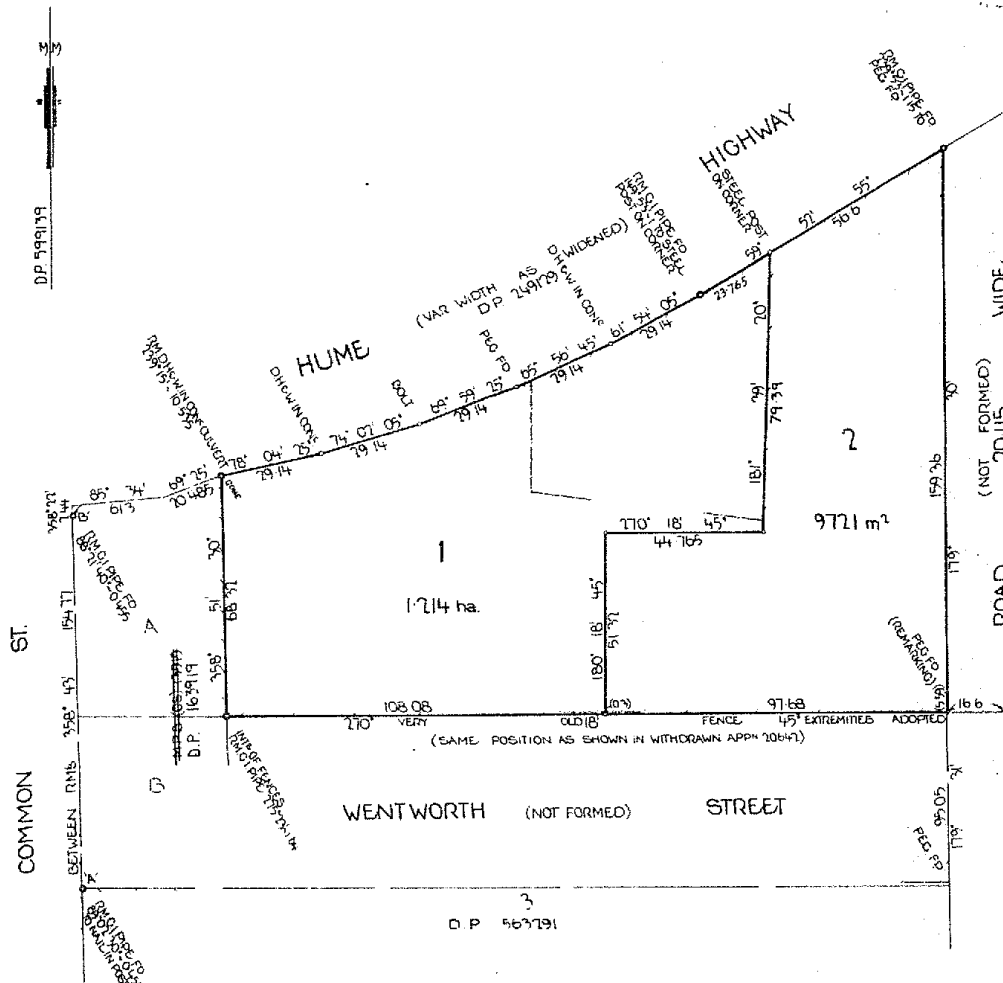
*[Signature]*  
Registrar General.



## PLAN SHOWING LOCATION OF LAND

LENGTHS ARE IN METRES

# CANCELLED



### ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 599139 at North Goulburn in the City of Goulburn Parish of Towrang County of Argyle being part of Suburban Allotment 41 granted to Owen Gorman on 5-1-1844.

### FIRST SCHEDULE

ALAN DAVID MCCARTHY and BARBARA PATRICIA MCCARTHY as joint tenants.

### SECOND SCHEDULE

1. Reservations and conditions, if any, contained in the Crown Grant above referred to.
2. Book 3419 No. 451 Mortgage to Uniting Church in Australia Property Trust (N.S.W.).
3. Book 3474 No. 571 Lease to John Randell Moore and Deirdre Helen Moore of premises known as The Governors Hill Motel (together with option of renewal). Expires 26-6-1984.
4. Book 3484 No. 310 Lease to Graeme Geoffrey Williams and Rosalie Beryl Williams of premises known as Lots 10-13 with frontage of about 255 feet to Sydney Road, Goulburn. Expires 31-1-1994.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

(Page 1) Vol. 14688 Fol. 29



T658574 vln R  
 D.P. 706570  
 REED 14-8-84

NOTATIONS AND UNREGISTERED DEALINGS

Book 3511 No. 121 Lease to M.C. & R.G. Hair Pty. Limited  
 of premises comprising the service station and restaurant  
 at Governors Hill (together with option of renewal)  
 Expires 2-5-1985.  
 Book 3419 No. 451 Mortgage. T658574 Variation. Registered 29.7.1983.

PARTICULARS  
 SECOND SCHEDULE (continued)  
 Registrar General CANCELLATION

Registered 14-8-1984  
 The folio is cancelled as to whole/upon  
 computer folios for lots 3-4.  
 mentioned plan.  
 Registrar General

REGISTERED PROPRIETOR  
 FIRST SCHEDULE (continued)  
 Registrar General



8972731G

PRIVACY NOTE: this information is legally required and will I

(A) LAND

Torrens Title 5/793066 & 115/811411
-------------------------------------

(B) REGISTERED DEALING

Number	Torrens Title
--------	---------------

(C) LODGED BY

Delivery Box <b>516L</b>	Name, Address or DX and Telephone McCoy Grove & Atkinson 36 Carrington Street SYDNEY NSW 2000 Reference: McCarthy	CODE <b>ND</b>
-----------------------------	---	-------------------

(D) DECEASED JOINT TENANT

BARBARA PATRICIA MCCARTHY
---------------------------

(E) SURVIVING JOINT TENANT

ALAN DAVID MCCARTHY
---------------------

(F) I, the surviving joint tenant, apply to be registered as proprietor of the interest of the deceased joint tenant in the above land

(G) STATUTORY DECLARATION

I, Alan David McCarthy  
 solemnly and sincerely declare that the deceased joint tenant—  
 1. died on 09 August 2002 ; and  
 2. is identical with the deceased named in the certified copy of death certificate No. 8681 (ACT) accompanying this application.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Oaths Act 1900.

and I certify this application correct for the purposes of the Real Property Act 1900.

Made and subscribed at Sydney in the State of New South Wales  
 on 17 September 2002 in the presence of—

Signature of witness:   
 Name of witness: Richard Clive Hansford

Signature of declarant:

Address of witness: 36 Carrington Street,  
 Sydney 2000  
 Qualification of witness: Solicitor

All handwriting must be in block capitals.  
 Office use only—  
 Evidence sighted/sighted and returned:



Form: 01T  
 Release: 6.2  
 Licence: 01-05-025  
 Licensee: LEAP Legal Software Pty Limited  
 Firm name: Bond Lawyers Pty Ltd

# TRANSFER

New South Wales  
 Real Property Act 1900



## AN533626E

**PRIVACY NOTE:** Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar-General by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

**STAMP DUTY**

Revenue NSW use only	Office of State Revenue NSW Treasury Client No: 113649668 Duty: <u>0</u> Trans No: <u>9409253</u> Asst details:
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**(A) TORRENS TITLE**

5/793066	25-7-18
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**(B) LODGED BY**

Document Collection Box <u>W</u>	Name, Address or DX, Telephone, and Customer Account Number if any Bond Lawyers Pty Ltd Suite 5, 5 Macquarie Street, PARRAMATTA NSW 2150 Tel: 02 9635 1022 Reference: RB:3957	CODES <b>T</b> <b>TW</b>
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OFFICE OF STATE REVENUE (N.S.W. TREASURY) 3649668 3239 ALTERATION NOTED

**(C) TRANSFEROR**

<del>Salim EID</del> <b>SAM EID</b>
--

**(D) CONSIDERATION**

The transferor acknowledges receipt of the consideration of \$450,000.00 and as regards

**(E) ESTATE**

the abovementioned land transfers to the transferee an estate in fee simple

**(F) SHARE TRANSFERRED**

Whole
-------

**(G)**

Encumbrances (if applicable):

**(H) TRANSFEREE**

LA ROCCO Pty Ltd ACN 626 746 398
<b>TENANCY:</b>

**(I)**

**DATE**

**(J)** I certify that I am an eligible witness and that the transferor signed this dealing in my presence.  
 [See note\* below]

Certified correct for the purposes of the Real Property Act 1900 by the transferor.

Signature of witness:

*[Handwritten Signature]*

Signature of transferor:

*[Handwritten Signature]*

Name of witness:

**ELIAS EID**

Address of witness:

**102 RIVER ST  
 EARLWOOD 2206**

Certified correct for the purposes of the Real Property Act 1900 on behalf of the transferee by the person whose signature appears below.

Signature:

*[Handwritten Signature]*

Signatory's name:

**Rachelle Bond**

Signatory's capacity:

**Solicitor for the Transferee**

**(K)** The transferee's solicitor certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. 1628749 Full name: Rachelle Bond Signature: *[Handwritten Signature]*

\* s 117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.

## CONVEYANCING RULES Exceptions

### New South Wales

Please accept this paper lodgment as it is an exception to the electronic lodgment requirements. The reason has been indicated below.

### Exclusions

- Folio of the Register is not Electronically Tradeable
- If an ELN is not available and has not been available for one clear Business Day.

### Waivers

- CR 1/2018 – Non ELN-Enabled Jurisdictions ACT.
- CR 1/2018 – Non ELN-Enabled Jurisdictions NT.
- CR 1/2018 – Non ELN-Enabled Jurisdictions TAS.
- CR 2/2018 – Non-Land Securities which cannot be traded electronically.
- CR 3/2018 – Transfers where land tax is required to be paid from settlement proceeds.
- CR 3/2018 – Transfers where funds from one financial settlement are required for another financial settlement (simultaneous settlement).
- CR 3/2018 – Transfers involved in a settlement that includes the transfer of a Water Access Licence.
- CR 3/2018 – Transfers affecting less than all of the registered proprietors.
- CR 4/2018 – Transfers with unrepresented parties.
- CR 5/2018 – Unrepresented Caveators.
- CR 6/2018 – Unrepresented non-ADI mortgagees.

Regards,

[Insert Lodging Party]

*Bond Lawyers.*







NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

14/4/2023 7:46AM

FOLIO: 3/706570

First Title(s): OLD SYSTEM  
Prior Title(s): VOL 14688 FOL 29

<u>Recorded</u>	<u>Number</u>	<u>Type of Instrument</u>	<u>C.T. Issue</u>
17/8/1984	DP706570	DEPOSITED PLAN	FOLIO CREATED EDITION 1
28/5/1985	V748335	LEASE	EDITION 2
15/1/1986	W156038	MORTGAGE	EDITION 3
23/6/1986	W386294	LEASE	EDITION 4
27/8/1986	W482254	VARIATION OF MORTGAGE	EDITION 5
6/2/1987	W735975	TRANSFER OF LEASE	
17/6/1987	W936287	TRANSFER OF LEASE	EDITION 6
16/9/1987	X70056	LEASE	EDITION 7
30/5/1988	X578564	LEASE	EDITION 8
19/6/1989	DP47618	DEPOSITED PLAN	
6/9/1989	Y557685	RESUMPTION APPLICATION	
8/12/1989	DP793066	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS
24/8/1999	6126302	DEPARTMENTAL DEALING	
7/8/2014	AI792803	DEPARTMENTAL DEALING	
7/8/2014	AI796544	DEPARTMENTAL DEALING	

\*\*\* END OF SEARCH \*\*\*

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PRINTED ON 14/4/2023





NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

14/4/2023 7:46AM

FOLIO: 5/793066

First Title(s): OLD SYSTEM  
Prior Title(s): 3/706570

<u>Recorded</u>	<u>Number</u>	<u>Type of Instrument</u>	<u>C.T. Issue</u>
8/12/1989	DP793066	DEPOSITED PLAN	FOLIO CREATED EDITION 1
16/3/1990	Y887123	DISCHARGE OF MORTGAGE	
16/3/1990	Y887124	VARIATION OF MORTGAGE	
16/3/1990	Y887125	SURRENDER OF LEASE	
16/3/1990	Y887126	LEASE	
16/3/1990	Y898859	MORTGAGE OF LEASE	EDITION 2
30/4/1990	Y955793	REQUEST	
30/4/1990	Y955794	LEASE	EDITION 3
2/3/1993	I134963	LEASE	EDITION 4
1/4/1996	2055434	LEASE	
1/4/1996	2055435	MORTGAGE OF LEASE	EDITION 5
16/2/2001	7419753	LEASE	
16/2/2001	7419754	TRANSFER OF LEASE	EDITION 6
2/4/2001	7514370	MORTGAGE OF LEASE	
20/9/2002	8972731	NOTICE OF DEATH	EDITION 7
3/2/2004	AA377686	DISCHARGE OF MORTGAGE	
3/2/2004	AA377687	MORTGAGE	EDITION 8
2/2/2005	AB262727	DISCHARGE OF MORTGAGE	
2/2/2005	AB262728	TRANSFER OF LEASE	
2/2/2005	AB262729	MORTGAGE OF LEASE	
10/5/2006	AC294230	LEASE	EDITION 9
27/7/2011	AG395467	DISCHARGE OF MORTGAGE	
27/7/2011	AG395468	TRANSFER	EDITION 10
5/9/2017	DP1172774	WITHDRAWN - PROPOSED PLAN	
27/7/2018	AN533626	TRANSFER	EDITION 11

END OF PAGE 1 - CONTINUED OVER

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NEW SOUTH WALES LAND REGISTRY SERVICES - HISTORICAL SEARCH

SEARCH DATE

14/4/2023 7:46AM

FOLIO: 5/793066

PAGE 2

<u>Recorded</u>	<u>Number</u>	<u>Type of Instrument</u>	<u>C.T. Issue</u>
14/9/2022	AS469386	REQUEST	EDITION 12
17/3/2023	AS936321	MORTGAGE	EDITION 13

\*\*\* END OF SEARCH \*\*\*

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NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 5/793066

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SEARCH DATE	TIME	EDITION NO	DATE
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14/4/2023	7:46 AM	13	17/3/2023

LAND

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LOT 5 IN DEPOSITED PLAN 793066  
AT GOULBURN  
LOCAL GOVERNMENT AREA GOULBURN MULWAREE  
PARISH OF GOULBURN COUNTY OF ARGYLE  
TITLE DIAGRAM DP793066

FIRST SCHEDULE

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LA ROCCO PTY LTD

(T AN533626)

SECOND SCHEDULE (2 NOTIFICATIONS)

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1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)  
2 AS936321 MORTGAGE TO BEECH CAPITAL 2023 PTY LTD

NOTATIONS

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UNREGISTERED DEALINGS: NIL

\*\*\* END OF SEARCH \*\*\*

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PRINTED ON 14/4/2023

**Security Classification: Sensitive Personal**  
**Please do not amend the subject line of this email**

Dear Stephanie

**Re: Site Search for Schedule 11 Hazardous Chemicals on premises Application – Result not found**

I refer to your application for a Site Search for Schedule 11 Hazardous Chemicals on premises, received by SafeWork NSW on 17/4/2023 for the following site: 61 SYDNEY ROAD GOULBURN NSW 2580.

A search of the records held by SafeWork NSW has not located any records pertaining to the above-mentioned premises.

If you have any further information or if you have any questions, please use one of the following options, quoting the SafeWork NSW enquiry reference number: 00827019

- Email: [licensing@safework.nsw.gov.au](mailto:licensing@safework.nsw.gov.au)
- Phone: 13 10 50

Kind regards

**Laura Lee**

**Licensing Representative**

SafeWork NSW | Better Regulation Division

Department of Customer Service

p- 13 10 50

e- [licensing@safework.nsw.gov.au](mailto:licensing@safework.nsw.gov.au) | [www.customerservice.nsw.gov.au](http://www.customerservice.nsw.gov.au)

Level 3, 32 Mann Street, Gosford, NSW 2250



## APPENDIX D

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Bore logs



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH1**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751765.3248422429	Driller Supplier : NEO	Client : NA
Northing : 6151478.47916313	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 2.8m	Date : 20/04/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					0
		Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	0.4	Natural		SC		Natural clayey to silty SAND (SC) : medium dense, low plasticity, orange mottled grey, fine to medium grained, moist, ( seepage noted ) .	M	MD			
	0.9	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F			0
	1.5										
	2.0										
	2.5										
						<b>BH1 Terminated at 2.8m</b>					





**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH2**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751766.1	Driller Supplier : NEO	Client : NA
Northing : 6151485.8	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 1.5m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					
	0.4	Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	0.5	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F			
	1.5					<b>BH2 Terminated at 1.5m</b>					
	2.0										
	2.5										



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH3**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751766.36	Driller Supplier : NEO	Client : NA
Northing : 6151494.10	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 4.3m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					
		Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	0.4	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F			
	1.7	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, grey, fine grained sand, wet.	W	F			



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH3**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751766.36	Driller Supplier : NEO	Client : NA
Northing : 6151494.10	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 4.3m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	3.5	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, grey, fine grained sand, wet.	W	F			
	4	Rock		LMSTN	MW	Rock LIMESTONE: moderately weathered, medium strength, white, fine grained, distinct, dry.		MS			
	4.5					<b>BH3 Terminated at 4.3m</b>					
	5										
	5.5										



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH4**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751758.9	Driller Supplier : NEO	Client : NA
Northing : 6151493.37	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 1.3m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					
	0.4	Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	0.5	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F			
	1										
	1.5					<b>BH4 Terminated at 1.3m</b>					
	2										
	2.5										
	3										



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH5/MW1**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751751.6621472142	Driller Supplier : NEO	Client : NA
Northing : 6151493.793533329	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 4.5m	Date : 02/05/2023	

Well Diagram	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples
	0.1	Non-Soil		BIT		Bitumen			
		Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L	
	2.5	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F	



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH5/MW1**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751751.6621472142	Driller Supplier : NEO	Client : NA
Northing : 6151493.793533329	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 4.5m	Date : 02/05/2023	

Well Diagram	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples
	50mm	Natural		CI		Natural silty to sandy CLAY (CI) : firm, medium plasticity, orange grey, fine grained sand, moist.	M	F	
	4.5					<b>BH5/MW1 Terminated at 4.5m</b>			
	5								
	5.5								
	0								





**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH6**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751743.41	Driller Supplier : NEO	Client : NA
Northing : 6151494.40	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 1.5m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					
		Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	1.5					<b>BH6 Terminated at 1.5m</b>					
	2.0										
	2.5										
	3.0										



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia

Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH7**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751736.78	Driller Supplier : NEO	Client : NA
Northing : 6151495.06	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 1.5m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.1	Non-Soil		BIT		Bitumen					
		Fill		SW		Fill gravelly SAND (SW) : loose, grey black, fine to medium grained, fine to medium sized gravel, moist.	M	L			
	1.5					<b>BH7 Terminated at 1.5m</b>					
	2.0										
	2.5										
	3.0										



**NEO Consulting**

186 Riverstone Parade, Riverstone NSW 2765, Australia  
 Phone: 61 455 485 502

**Engineering Log - Borehole**

**Borehole No: BH8**

UTM : 55H	Driller Rig : D-Max	Job Number : N6527
Easting : 751733.5504109062	Driller Supplier : NEO	Client : NA
Northing : 6151477.390585571	Logged By : Ehsan Zare	Project : Goulburn
RL : N/A	Reviewed By :	Location : Goulburn NSW
Total Depth : 3m	Date : 02/05/2023	

Water	Depth (m)	Soil Origin	Graphic Log	Classification Code	Weathering	Material Description	Moisture	Consistency	Samples		PID
	0.3	Fill		CL-CI		Fill silty to sandy CLAY (CL-CI) : soft to firm, low to medium plasticity, brown, fine grained sand, with fine sized gravel, moist.	M	S-F			
	0.5	Natural		CL-CI		Natural silty to sandy CLAY (CL-CI) : soft to firm, low to medium plasticity, brown, fine grained sand, with fine sized gravel, dry.	D	S-F			
	1										
	1.5										
	2										
	2.5	Natural		SC		Natural clayey to silty SAND (SC) : loose to medium dense, low to medium plasticity, brown grey, fine grained, dry.	D	L-MD			
	3										